Shelton City Council
Meeting Agenda
August 3, 2021 at 6:00 p.m.
Civic Center

A. Call to Order
- Pledge of Allegiance
- Roll Call
- Late Changes to the Agenda

B. Council Reports

C. Consent Agenda (Action)
1. Vouchers numbered 105416 through 105469 in the total amount of $76,517.49
2. Vouchers numbered 105470 through 105525 in the total amount of $323,206.93
3. Shelton Veterans Village Status Update – July 8, 2021
4. Minutes:
   - Business Meeting of April 6, 2021
   - Business Meeting of April 20, 2021
   - Study Session of April 27, 2021

D. Presentations
1. Mason County Historical Society Museum 2nd Quarter LTAC Report – Presented by Liz Arbaugh
2. Water System Comprehensive Plan Update – Presented by City Engineer Ken Gill, Senior Project Manager Lara Kammereck of Carollo Engineers and Engineer Natalie Reilly of Carollo Engineers

E. General Public Comment (3-minute time limit)
The City Council invites members of the public to provide comment on any topic at this time. Please sign in on the public comment sheet and keep an instruction card. If you would like to comment on a Business or Action item, please list the agenda item number on the list. City Councilmembers and City Staff will not enter into a dialogue during public comment. If the Council feels an issue requires follow up, Staff will be directed to respond at an appropriate time.

F. Business Agenda (Study/No Action/Public Comment Taken)
1. Public Hearing Ordinance No. 1963-1220 PUD 3 Franchise Agreement – Presented by City Manager Jeff Niten

G. Action Agenda (Action/Public Comment Taken)
1. Ordinance No. 1972-0621 Sewer Averaging for Summer Consumption – Presented by Finance Director Aaron BeMiller
2. Resolution No. 1203-0621 EM&R Roller Surplus – Presented by Public Works Director Jay Harris

H. Administration Reports
1. City Manager Report

I. New Items for Discussion

J. Announcement of Next Meeting – August 17, 2021 at 6:00 p.m.

K. Adjourn

Special Note for Virtual Public Participation

The meeting can be viewed at: masonwebtv.com
The public can provide comments virtually by:
Email: jeff.niten@sheltonwa.gov (before 5:00 p.m. the day of the meeting)
Telephone: (360) 968-9004

Your comments will be relayed directly to the Council.

2021 Looking Ahead

(Items and dates are subject to change)

Tues. 8/10 6:00 p.m.	Study Session	Study Agenda •	Packet Items Due: Fri. 8/6 @ noon
Tues. 8/17 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes • June Financial Status Report Presentations • Business Agenda • Public Hearing Ordinance No. 1973-0621 Updating SMC 8.08 • MOU with Waste Connections – Updating Administrative Provisions • Resolution No. 1205-0721 Surplus Police Vehicles Action Agenda • Ordinance No. 1963-1220 Franchise Agreement – PUD #3 • Civic Center Rotating Art Gallery recommendations Administration Report •	Packet Items Due: 8/6 – 5:00 p.m.
Tues. 8/24 6:00 p.m.	Study Session	Study Agenda • Western Gateway Project Update • Civic Center Parking Lot Project Update	Packet Items Due: Fri. 8/20 @ noon
Tues. 9/7 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • Surplus Property • Resolution No. 1186-1220 Surplus Computer Equipment • Public Hearing Ordinance No. 1968-0321 Water Comp Plan Adoption Action Agenda • Ordinance No. 1973-0621 Updating SMC 8.08 • MOU with Waste Connections – Updating Administrative Provisions • Resolution No. 1204-0621 Storm Drainage Charges-Commercial Discount • Resolution No. 1205-0721 Surplus Police Vehicles Administration Report	Packet Items Due: 8/27 – 5:00 p.m.

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Tues. 9/14 6:00 p.m.	Study Session	Study Agenda	Packet Items Due: Fri. 9/10 @ noon
Tues. 9/21 5:45 p.m.	SMPD Meeting	Consent Agenda • Vouchers/Meeting Minutes Business Agenda • Action Agenda • Administration Report •	Packet Items Due: 9/10 – 5:00 p.m.
Tues. 9/21 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes • July Financial Status Report Presentations • Business Agenda • Action Agenda • Surplus Property • Resolution No. 1186-1220 Surplus Computer Equipment • Ordinance No. 1968-0321 Water Comp Plan Adoption Administration Report •	Packet Items Due: 9/10 – 5:00 p.m.
Tues. 9/28 6:00 p.m.	Study Session	Study Agenda	Packet Items Due: Fri. 9/24 @ noon
Tues. 10/5 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • LTAC Grant Recommendations Action Agenda • Administration Report •	Packet Items Due: 9/24 – 5:00 p.m.
Tues. 10/12 6:00 p.m.	Study Session	Study Agenda	Packet Items Due: Fri. 10/8 @ noon
Tues. 10/19 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes • August Financial Status Report Presentations • Business Agenda • Action Agenda • LTAC Grant Recommendations Administration Report •	Packet Items Due: 10/8 – 5:00 p.m.

Tues. 10/26 6:00 p.m.	Study Session	Study Agenda	Packet Items Due: Fri. 10/22 @ noon
Tues. 11/2 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • Action Agenda • Administration Report •	Packet Items Due: 10/22 – 5:00 p.m.
Tues. 11/9 6:00 p.m.	Study Session	Study Agenda	Packet Items Due: Fri. 11/5 @ noon
Tues. 11/16 6:00 p.m.		Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes • September Financial Status Report Presentations • Business Agenda • Action Agenda • Administration Report •	Packet Items Due: 11/5 – 5:00 p.m.

Other – TBD

- UGA/Annexation Policy (Water/Sewer Extensions)
- Outside City Water/Sewer Extensions
- More Standing Committees by the Council
- December 7, 2021 – C Street Update

VOUCHER APPROVAL

I, the undersigned, do hereby certify under penalty of perjury that the materials have been furnished, the services rendered or the labor performed as described herein vouchers number 105416 through number 105469 in the total amount of $76,517.49 that the claims are just, due and unpaid obligations against the City of Shelton, and that I am authorized to authenticate and certify said claims.

Signed this 16th of July, 2021.

Jeri Schmitz, Accounting Manager
for Director of Financial Services

We, the undersigned members of the City Council of Shelton, Washington, do hereby certify that the vouchers contained herein are approved for payment.

Signed this _____ of _____, 2021.

_____
Mayor Kevin Dorcy

_____
Deputy Mayor Deidre Peterson

_____
Councilmember James Boad

_____
Councilmember Megan Fiess

_____
Councilmember Kathy McDowell

_____
Councilmember Eric Onisko

_____
Councilmember Joe Schmit

VOUCHER APPROVAL

I, the undersigned, do hereby certify under penalty of perjury that the materials have been furnished, the services rendered or the labor performed as described herein vouchers number 105470 through number 105525 in the total amount of $323,206.93 that the claims are just, due and unpaid obligations against the City of Shelton, and that I am authorized to authenticate and certify said claims.

Signed this 23rd of July, 2021.

Jeri Schmitz, Accounting Manager
for Director of Financial Services

We, the undersigned members of the City Council of Shelton, Washington, do hereby certify that the vouchers contained herein are approved for payment.

Signed this _____ of _____, 2021.

_____
Mayor Kevin Dorcy

_____
Deputy Mayor Deidre Peterson

_____
Councilmember James Boad

_____
Councilmember Megan Fiess

_____
Councilmember Kathy McDowell

_____
Councilmember Eric Onisko

_____
Councilmember Joe Schmit

Shelton Veterans Village

7/8/2021 Status Updates

Next Meetings: **9:00 AM, Tuesday July 20 (Jaycie hosting)** then 9AM, Thursday August 12

Via Email To:	*Jaycie Osterberg; Garner Miller; Dan Campbell; Michelle Hallen; Kelsey Johnston; Alberto Del Toro; Chris Merritt*	
Entity	**Notes**	**Action**
Olympic Engineering	• Civil plan comments submitted to City of Shelton.	• Awaiting City of Shelton permit approval.
MSGS Architecture	• Updating ESES binder (landscaping).	• Working with indieDwell on L&I permit resubmittal
Quixote Communities	• Monitoring City of Shelton dirt pile. Will stockpile fit in City-provided space? • Pursuing materials donations. Pursuing Mason Consv. Dist. fee for service, grants & materials donations. • Water/sewer/fire taps before 7/19 chip seal not feasible.	• Meeting with Evan at Mason Conv. Dist. • Providing Forma with funds available for immediate site work. • Consider wheeled dumpster trash enclosure vs. multiple trash cans
Forma Construction	• Working with indieDwell on onsite scope of work. • Reliable Elec updating sheets for larger electric service • Including dumpster enclosure (roof & gate) allowance. Other trash solution btw Mason Refuse & City of Shelton?	• To develop initial clear, grade & utilities scope of work to fit Quixote's available funds
indieDwell	• Est. 90-120 days between contract & production start. Address donations in production contract. • Provided *draft* onsite work requirements	• Updating L&I permit set. • Provide *draft* price est. ASAP using assumed scope of work.
Mason County Conservation District	• Evan Bauder is primary contact. • Scope of work to include grants, donate materials/labor, topsoil, amendments, & hydro seed (include utility excavations).	
Community Frameworks		• Confirming City of Shelton OK to cut 13th Street after July chip seal. • ID funds available for immediate site work.

CITY OF SHELTON, WASHINGTON - CITY COUNCIL
City Council Meeting Minutes
April 6, 2021 – 6:00 p.m.
Virtual Platform

COUNCILMEMBERS AND PERSONNEL

Councilmembers
Mayor Kevin Dorcy
Deputy Mayor Deidre Peterson
James Boad
Megan Fiess
Kathy McDowell
Eric Onisko
Joe Schmit

Personnel
City Manager Jeff Niten
City Clerk Donna Nault
Community Development Director Mark Ziegler
Finance Director Aaron BeMiller
Public Works Director Jay Harris
Senior Planner Jason Dose
Public Works Technician Jared Welander
City Engineer Ken Gill
Police Chief Carole Beason

CALL TO ORDER

Call to Order – 6:00 p.m.
Pledge of Allegiance – Mayor Dorcy
Roll Call: City Clerk Nault – All present

LATE CHANGES TO THE AGENDA

Proclamation – City of Shelton National Public Safety Telecommunicators Week

Mayor Dorcy – The public is able to make comments during the Public Comment period, as well as any items listed on the business or the action agendas. When making a public comment you will need to state your full name and whether you reside within City limits, within Mason County or reside elsewhere. There are three options for the public to participate in the meeting: (1) join the Zoom meeting by clicking the link on the city's website, (2) email jeff.niten@sheltonwa.gov, and (3) by calling 360-432-5105.

CITY COUNCIL REPORTS

City Councilmembers attended or participated in the following:

- LEOFF Board meeting
- Congresswoman Marilyn Strickland's visit to Shelton
- Governor Inslee's Declaration National Public Health Week
- Squaxin Island Tribal Council - Joint City Council meeting

CONSENT AGENDA

1. Voucher numbered 104430 in the amount of $7,592.90.
2. Vouchers numbered 104431 through 104479 in the total amount of $134,745.68.
3. Vouchers numbered 104480 through 104549 in the total amount of $299,199.96.
4. Minutes from Business Meeting of January 19, 2021.

A motion was made by Deputy Mayor Peterson and seconded by Councilmember Onisko.
Passed.

PROCLAMATION

1. National Public Safety Telecommunicators Proclamation declaring the week of April 11 – April 17, 2021 in the City of Shelton.

Mayor Dorcy read the proclamation, discussion followed.

GENERAL PUBLIC COMMENT

No public comments.

BUSINESS AGENDA

1. Park Property Acquisitions – Presented by Community Development Director Mark Ziegler

   The City has been working with Capitol Land Trust and Manke Timber Company to obtain 52.22 acres of property comprised of three parcels located inside and outside of the southwest area of Shelton city limits. Acquisition of the property would meet several priorities in the Parks, Recreation, Open Space and Trails Plan. Discussion followed. No public comments.

   A motion was made by Deputy Mayor Peterson and seconded by Councilmember Onisko to move this item to the April 20, 2021 action agenda. Passed.

2. Shannon Park Property Acquisitions – Presented by Community Development Director Mark Ziegler

   The property is a proposed fee simple acquisition of 7.28 acres of undeveloped land adjacent to Kneeland Park to the west. The acquisition has been identified in planning documents from the 1989 Park Plan to the current 2020 Parks, Recreation, Open Space and Trails Plan. Discussion followed. No public comments.

   A motion was made by Councilmember Onisko and seconded by Councilmember McDowell to move this item to the April 20, 2021 action agenda. Passed.

3. Traffic Box Wrap Recommendations – Presented by Community Development Director Mark Ziegler

   The Shelton Arts Commission is seeking to install traffic box art wraps around the community. The project is sponsored by the Martha Reed Foundation. The traffic box art wraps will be located at Wallace Kneeland & Bell Lane, 7th & Alder, and Wallace Kneeland & Spring Road. Discussion followed. No public comments.

   A motion was made by Councilmember Fiess and seconded by Councilmember Schmit to move this item to the April 20, 2021 action agenda. Passed.

4. Resolution No. 1190-0221 Sweeper Equipment Purchase – Presented by Public Works Technician Jared Welander

   A regular street sweeping program is required by the new State NPDES storm water permit and is vital for maintaining safety, storm water quality, and aesthetics throughout the City. The vacuum style street sweeper being proposed is the R4 Air Regenerative. Discussion followed. No public comments.

   A motion was made by Deputy Mayor Peterson and seconded by Councilmember Schmit to move this item to the April 20, 2021 action agenda. Passed.

5. Resolution No. 1193-0421 Streamflow Restoration Planning – Presented by City Engineer Ken Gill

   Legislature passed the streamflow restoration law (RCW 90.94) that helps restore streamflow to levels necessary to support sustainable salmon populations while providing water for homes in rural Washington. The law directs local planning groups to develop watershed plans that offset impacts from new domestic permit-exempt wells and achieve a net ecological benefit within the watershed. Discussion followed. No public comments.

   A motion was made by Deputy Mayor Peterson and seconded by Councilmember Fiess to move this item to the April 20, 2021 action agenda. Passed.

ACTION AGENDA

1. Municipal Code Steering Committee Appointments – Presented by Community Development Director Mark Ziegler

   The City sought letters of interest from the community specifically targeting developers, building advocacy, design professionals and the business community to serve on a steering committee that will assist staff in the review and writing of development-specific code updates. Eight individuals wrote letters of interest: Mike Olsen, local builder, Len Williams, AIA Williams Architecture, Keith Fuller, realtor, John Allen, local builder, Will Johnson, local builder, Nathan Stout, local plumber, Marty Crow, Habitat for Humanity, and Hillary Browning, Department of Natural Resources. Discussion followed. No public comments.

   A motion was made by Councilmember Kathy McDowell to appoint Len Williams, Keith Fuller, John Allen, Nathan Stout, and Marty Crow to the City's Municipal Code Steering Committee. The motion was seconded by Councilmember Schmit. Passed.

2. Resolution No. 1189-0221 Well 1 Rehab Design Contract Amendment No. 2 – Presented by Public Works Director Jay Harris

   Amendment No. 2 is to add $102,500 to the Gray & Osborne, Inc. contract amount to complete the design, bid package and extend the contract term to December 31, 2021. Discussion followed. No public comments. City Clerk Nault provided a reading of Resolution No. 1189-0221.

   A motion was made by Councilmember Onisko and seconded by Councilmember Fiess. Passed.

3. Veterans Village National Environmental Policy Act (NEPA) Certification – Presented by Senior Planner Dose

   The City was informed by Quixote Communities that attempts were being made to secure federal project-based vouchers to provide aid to low-income residents. To benefit from the federal funding, there is a requirement the project be evaluated pursuant to NEPA. The environmental assessment resulted in a finding of no significant impact with no required mitigation. City staff is requesting authorization for signature of the environmental assessment by Mayor Dorcy. No public comments.

   A motion was made by Deputy Mayor Peterson and seconded by Councilmember Schmit. Passed.

4. Resolution No. 1191-0221 Shelton High School Special Use Permit Acceptance – Presented by Senior Planner Dose

   The School District is requesting a special use permit to allow for construction of 15,000 square feet of classroom space and two 1,750 square foot portable classroom. No public comments. City Clerk Nault provided a reading of Resolution No. 1191-0221.

   A motion was made by Councilmember Onisko and seconded by Councilmember Fiess. Passed.

5. Resolution No. 1192-0321 Master Fee Schedule Update – Presented by Finance Director Aaron BeMiller

   City Council approved Resolution 1184-1120 on January 19, 2021. Since that time, the city and Central Mason Fire and EMS (CMFE) entered into an Interlocal Agreement beginning January 2021. For 2021, the city will pay CMFE a flat monthly charge for their CMFE services. The Resolution will retroactively implement fire fees to begin January 1, 2021. No public comments. City Clerk Nault provided a reading of Resolution No. 1192-0321.

   A motion was made by Councilmember Schmit and seconded by Deputy Mayor Peterson. Passed.

ADMINISTRATION REPORT

City Manager Report – Presented by City Manager Jeff Niten

- Congresswoman Marilyn Strickland's visit to Shelton
- Squaxin Tribal Council – Joint City Council Meeting
- Stormwater – informational pamphlet to be distributed to property owners. Public hearing May 4, 2021
- Spotlight Shelton – virtual event April 15, 2021
- City Council work session – April 27, 2021
- Looking Ahead:
  - April 20, 2021 – City's smartphone application demonstration.

NEW ITEMS FOR DISCUSSION

None

ANNOUNCEMENT OF NEXT MEETING

April 20, 2021 at 6:00 p.m.

MEETING ADJOURN

Mayor Dorcy adjourned the meeting at 7:43 p.m.

_____ _____

Mayor Kevin Dorcy City Clerk Donna Nault

CITY OF SHELTON, WASHINGTON - CITY COUNCIL
City Council Meeting Minutes
April 20, 2021 – 6:00 p.m.
Virtual Platform

COUNCILMEMBERS AND PERSONNEL

Councilmembers
Mayor Kevin Dorcy
Deputy Mayor Deidre Peterson
James Boad
Megan Fiess
Kathy McDowell
Eric Onisko
Joe Schmit

Personnel
City Manager Jeff Niten
City Clerk Donna Nault
Community Development Director Mark Ziegler
Administrative Services Director Michelle Sutherland
HR Analyst LeAndra Sharp
Communications Specialist Mary Ricker
Public Works Technician Jared Welander
City Engineer Ken Gill
Fire Chief Mike Patti
Accounting Manager Teri Schnitzer

CALL TO ORDER

Call to Order – 6:00 p.m.
Pledge of Allegiance – Deputy Mayor Peterson
Roll Call: City Clerk Nault – All present

LATE CHANGES TO THE AGENDA

Action Agenda – Add Streamflow Restoration Planning

Mayor Dorcy – The public is able to make comments during the Public Comment period, as well as any items listed on the business or the action agendas. When making a public comment you will need to state your full name and whether you reside within City limits, within Mason County or reside elsewhere. There are three options for the public to participate in the meeting: (1) join the Zoom meeting by clicking the link on the city's website, (2) email jeff.niten@sheltonwa.gov, and (3) by calling 360-432-5105.

CITY COUNCIL REPORTS

No reports.

CONSENT AGENDA

1. Vouchers numbered 104556 through 104589 in the total amount of $29,204.91.
2. Voucher numbered 104613 in the amount of $9,019.90.
3. Vouchers numbered 104614 through 104658 in the total amount of $56,280.53.
4. Shelton-Mason County Chamber of Commerce 1st Quarter LTAC Report – Written by President/CEO Heidi McCutcheon.
5. Minutes from Business Meeting of February 2, 2021.

A motion was made by Deputy Mayor Peterson and seconded by Councilmember Onisko. Passed.

PRESENTATIONS

1. MyCivic App Demonstration – Presented by Administrative Services Director Michelle Sutherland, HR Analyst LeAndra Sharp & Communications Specialist Mary Ricker

   The presentation provided an overview of MyCivic App, which has a customizable platform designed to promote civic engagement.

GENERAL PUBLIC COMMENT

No public comments.

BUSINESS AGENDA

1. Shelton Skate Park Interlocal Agreement (ILA) – Presented by Community Development Director Mark Ziegler

   The Shelton Skate Park is located on Shelton School District property. The skate park was previously operated by Mason County until a request was made to the City to take over operations in 2014. A Memorandum of Understanding (MOU) was entered into with Mason County to manage, maintain and explore future replacement of the skate park. City Attorney Haggard has recommended entering into an ILA rather than renewing the existing MOU. The ILA has been approved by the Mason County Commissioners and is under review with the Shelton School District. Discussion followed. No public comments.

   A motion was made by Councilmember Fiess and seconded by Councilmember Onisko to move this item to the May 4, 2021 action agenda. Passed.

ACTION AGENDA

1. Park Property Acquisitions – Presented by Community Development Director Mark Ziegler

   The City has been working with Capitol Land Trust and Manke Timber Company to obtain 52.22 acres of property comprised of three parcels located inside and outside of the southwest area of Shelton city limits. Acquisition of the property would meet several priorities in the Parks, Recreation, Open Space and Trails Plan. Discussion followed. No public comments.

   A motion was made by Councilmember Onisko and seconded by Councilmember McDowell. Passed.

2. Shannon Park Property Acquisitions – Presented by Community Development Director Mark Ziegler

   The property is a proposed fee simple acquisition of 7.28 acres of undeveloped land adjacent to Kneeland Park. The acquisition has been identified in planning documents from the 1989 Park Plan to the current 2020 Parks, Recreation, Open Space and Trails Plan. Discussion followed. No public comments.

   A motion was made by Deputy Mayor Peterson and seconded by Councilmember Onisko. Passed.

3. Traffic Box Wrap Recommendations – Presented by Community Development Director Mark Ziegler

   The Shelton Arts Commission is seeking to install traffic box art wraps around the community. The project is sponsored by the Martha Reed Foundation. The traffic box art wraps will be located at Wallace Kneeland & Bell Lane, 7th & Alder, and Wallace Kneeland & Spring Road. No public comments.

A motion was made by Deputy Mayor Peterson ad seconded by Councilmember McDowell. Passed.

4. Resolution No. 1190-0221 Sweeper Equipment Purchase – Presented by Public Works Technician Jared Welander

   A regular street sweeping program is required by the new state NPDES storm water permit and is vital for maintaining safety, storm water quality, and aesthetics throughout the City. The vacuum style street sweeper being proposed is the Global R4 Air Regenerative. Discussion followed. No public comments. City Clerk Nault provided the reading of Resolution 1190-0221.

   A motion was made by Deputy Mayor Peterson and seconded by Councilmember Onisko. Passed.

5. Resolution No. 1193-0421 Streamflow Restoration Planning – Presented by City Engineer Ken Gill

   Legislature passed the streamflow restoration law (RCW 90.94) that helps restore streamflow to levels necessary to support sustainable salmon populations while providing water for homes in rural Washington. The law directs local planning groups to develop watershed plans that offset impacts from new domestic permit-exempt wells and achieve a net ecological benefit within the watershed. Discussion followed. No public comments. City Clerk Nault provided the reading of Resolution No. 1193-0421.

   A motion was made by Councilmember Onisko and seconded by Deputy Mayor Peterson. Passed.

ADMINISTRATION REPORT

City Manager Report – Presented by City Manager Jeff Niten

- City Building Official Sean Carlstrom obtained the Master Code Professional Certification
- April 27, 2021 – Stormwater work session
- Blanket right-of-way permit for commercial areas in the city to spruce-up their properties
- Looking Ahead:
  - May 4, 2021 – Financial Information presentation
  - May 18, 2021 – Year-end financials for 2020 and first quarter 2021
  - Streamlining B&O Taxes

NEW ITEMS FOR DISCUSSION

None

ANNOUNCEMENT OF NEXT MEETING

May 4, 2021 at 6:00 p.m.

MEETING ADJOURN

Mayor Dorcy adjourned the meeting at 6:46 p.m.

Mayor Kevin Dorcy

City Clerk Donna Nault

CITY OF SHELTON, WASHINGTON - CITY COUNCIL
Study Session – April 27, 2021
VIRTUAL PLATFORM
Shelton Civic Center - 6:00 p.m.

COUNCILMEMBERS AND PERSONNEL

Councilmembers:
Mayor Kevin Dorcy
Deputy Mayor Deidre Peterson
James Boad
Megan Fiess
Kathy McDowell
Eric Onisko
Joe Schmit

Personnel:
City Manager Jeff Niten
City Clerk Donna Nault
Public Works Director Jay Harris
Public Works Administrative Manager Brooke Kilts

Guests:
FCS Group – John Ghilarducci and Tage Aaker

CALL TO ORDER

Call to Order – 6:00 p.m.
Roll Call – City Clerk Nault – All present (Councilmember Boad joined at 6:15 p.m.)

STUDY SESSION

1. Stormwater Rates – Presented by Public Works Director Jay Harris & FCS Group

The presentation provided an overview of existing stormwater rates, how utility rates are established in order to cover the cost of providing services, and an introduction of a new rate structure. Discussion followed.

NEW ITEMS FOR DISCUSSION

No new items

ANNOUNCEMENT OF NEXT MEETING

None

ADJOURN

Mayor Dorcy adjourned the meeting at 7:53 p.m.

Mayor Kevin Dorcy

City Clerk Donna Nault

2nd Quarter 2021 Visitor Information Report
July 21, 2021

Month	Total Attendance	> 50 Miles	Out of State	Out of Country
April	132	43	21	2
May	100	24	10	
June	147	46	29	1
Total	**379**	**113**	**60**	**3**

- The museum began its new schedule on June 1, 2021. The hours of operation pre-pandemic were 11-5, Tuesday through Friday and 11-4 Saturdays. Our new hours are 10-4, Tuesday through Friday, and remain the same on Saturdays. The earlier start time has proven to capture more summer visitors and be more convenient for our members.

- The museum has seen the return of visitors from around the US, as people begin to travel again, although visits are about half of the same quarter in 2019. States represented include Arizona, California, Colorado, Florida, Maine, Minnesota, Montana, New York, Oregon, Pennsylvania, Texas, Utah, and Wisconsin. We also had a visitor from British Columbia and two from Korea.

- The museum has produced a new rack card (see attached) featuring the art of Waldo Chase, and highlighting the unique history of Mason County. A coordinating advertisement ran in the **Visitors Guide** printed by the **Shelton Mason County Journal.**

- In recognition of **Forest Festival**, the museum has a temporary exhibit featuring artifacts from the filming of **"Ring of Fire,"** the 1961 movie filmed in part in Mason County and featuring many local residents as extras.

- Planning continues for the exhibit **"Orre Nobles: Art and Whimsy on Hood Canal."** The exhibit will begin with a members-only reception on August 20th, and open to the public on August 21, 2021, with a tentative end date of October 18, 2021.

- The Mason County Historical Society Museum website had over 2600 visits during the 2nd quarter of 2021, a 10% increase from the previous quarter. The museum's Facebook page continues to be popular, with a post about the tunnel at Irene S. Reed High School receiving over 5,300 views and having over 500 reactions.

The Mason County Historical Society thanks the City of Shelton for its support.

MASON COUNTY
HISTORICAL SOCIETY

Explore the History of the South Salish Sea

426 West Railroad Avenue
Shelton, Washington 98584
(360)426-1020

Tribal members and settlers, timber barons and loggers, artists, business people and farmers; early life in the wild Pacific Northwest. The Mason County Historical Museum is housed in the former Shelton City Hall and Library building. It contains our extensive collection of archives, photographs, art, and artifacts from the early people and industries of timber, railroads, aquaculture, and agriculture. The 1914 Georgian Revival style building was designed by Frederick Heath and is on the National Register of Historic Places

Pick up a copy of our **Historic Walking Tour**!

Hours:

Tuesday-Friday 10:00 AM - 4:00 PM

Saturday 11:00 - 4:00 PM

P.O. Box 1366
427 West Railroad Avenue
Shelton, Washington 98585
360.426.1020
Masoncountyhistoricalsociety.org

MASON COUNTY
HISTORICAL SOCIETY
MUSEUM

Front : "Clallum" - by Waldo Chase —1929

Water System Comprehensive Plan Update

DRAFT | July 2021

carollo
Engineers...Working Wonders With Water®

Contents

Chapter 5 - System Analysis

Appendices

Tables

Figures

Abbreviations

2010 Plan	City of Shelton 2010 Water System Plan
AACE	American Associate of Cost Estimators
AC	asbestos cement
ac-ft	acre-feet
Academy	Washington State Patrol Academy
ADD	average day demand
AFY	acre-feet per year
AMI	advanced metering infrastructure
App	Appendix
AWIA	America's Water Infrastructure Act
AWWA	American Water Works Association
BPA	backflow prevention assembly
BPS	booster pump station
BWA	Boil Water Advisory
DARCI	Dayton-Airport Road Commercial Industrial Center
Carollo	Carollo Engineers, Inc.
CCC	Cross Connection Control
CCCS	Cross Connection Control Specialist
CCL	contaminant candidate list
CCR	Consumer Confidence Report
CF	cubic feet
CFE	Capital Facilities Element
CFR	Code of Federal Regulations
cfs	cubic feet per second
CFU	Capital Facilities and Utilities goal / policy
CIP	Capital Improvement Program
City	City of Shelton
Council	Shelton City Council
CWSP	Coordinated Water System Plan
CWSSA	critical water supply service area
D	Distribution system project
D/DBPR	Disinfectants/Disinfection Byproducts Rules
DARCI	Dayton-Airport Road Commercial Industrial Center
DBCP	dibromochloropropane
DNS	Determination of Non-Significance
DOC	Washington State Department of Corrections
DOH	Washington State Department of Health
DSL	distribution system leakage

DWSRF	Drinking Water State Revolving Fund
Ecology	Washington State Department of Ecology
EDB	ethylene dibromide
EDR	Environmental Data Resources, Inc.
El.	Elevation
EM&R	Equipment Maintenance, and Repair
ENR	Engineering News Report
EPS	extended period simulation
ERP	City's Emergency Response Plan
ERU	Equivalent Residential Unit
ESWTR	Enhance Surface Water Treatment Rules
FF	fire flow
fps	feet per second
FSS	fire suppression storage
ft	feet
ft/s	feet per second
G	General project
gal	gallon
GFC	general facility charge
GH	Goldsborough Heights
GIS	geographic information system
gpd	gallons per day
gpd/ERU	gallons per day per Equivalent Residential Unit
gpm	gallons per minute
GMA	Growth Management Act
HAA5	Haloacetic Acids
HGL	hydraulic grade line
hp	horsepower
hr	hour
IACC	Infrastructure Assistance Coordinating Council
ID	identification
in	Inch(es)
IOC	Inorganic Chemical
John's Prairie	Port of Shelton's John's Prairie Industrial Park
LCR	Lead and Copper Rule
LF	linear feet
LGC	Local Government Consistency
LID	local improvement district
LOS	level of service
LUST	leaking underground storage tank

MCL	maximum contaminant level
MDD	maximum day demand
MG	million gallons
mg/L	milligrams per liter
mgd	million gallons per day
min	minute
mgy	million gallons per year
MSDS	material safety data sheet
MTCA	Model Toxics Control Act
N/A	not applicable
NPDES	National Pollutant Discharge Elimination System
O&M	operations and maintenance
ODW	Office of Drinking Water
OFM	State of Washington Office of Financial Management
PCBs	polychlorinated biphenyls
PFAS	per-and polyfluoroalkyl substances
PHD	peak hour demand
Plan	City of Shelton Water System Comprehensive Plan
PNR	Public Notification Rule
Port	Port of Shelton
PRV	pressure-reducing valve
PS	pump station
psi	pounds per square inch
PWB	Washington State Public Works Board
PWTF	Public Works Trust Fund
PZ	pressure zone
Qa	annual right
Qi	instantaneous right
R&R	repair and replacement
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RSA	retail service area
RTCR	Revised Total Coliform Rule
S	Supply project
Sanderson Field	Port of Shelton's Sanderson Field Industrial Park
SARA	Superfund Amendments and Re-authorization Act
SCADA	supervisory control and data acquisition
SDC	standard development charge
SDWA	Safe Drinking Water Act
SEPA	Washington State Environmental Policy Act

SMA	Satellite Management Agencies
SMC	City of Shelton Municipal Code
SOC	synthetic organic chemical
SOP	Standard operating procedure
SPI	Sierra Pacific Industries Sawmill
SS	standby storage
ST	Storage project
State	Washington State
THM	Total Trihalomethane
Tier 1	immediate notice
Tier 2	notice as soon as possible
Tier 3	Annual Notice
UCMR	unregulated contaminants monitoring rule
UCMR1	unregulated contaminants monitoring rule 1
UCMR2	unregulated contaminants monitoring rule 2
UCMR3	unregulated contaminants monitoring rule 3
UCMR4	unregulated contaminants monitoring rule 4
UCMR5	unregulated contaminants monitoring rule 5
UGA	Urban Growth Area
UPC	United Plumbing Code
USEPA	United States Environment Protection Agency
VFD	variable frequency drive
VOC	volatile organic chemical
WAC	Washington Administrative Code
WCC	Washington Corrections Center
WFI	Water Facility Inventory
WHP	wellhead protection
WHPA	wellhead protection area
WHPP	wellhead protection plans
WLCAP	water loss control action plan
WRIA	Water Resource Inventory Area
WRP	water reclamation plant
WSDM	Water System Design Manual
WSP	Washington State Patrol
WUE	Water Use Efficiency

EXECUTIVE SUMMARY

ES.1 Introduction

The City of Shelton (City) prepared this Water System Plan (Plan) update to document the current status of the water system and evaluate the future needs of the water utility. The Plan is an update to the City's 2010 Plan. The purpose of this plan is to document changes to the City's water system, identify required system modifications, and to appropriately outline capital improvement projects to meet system growth and address aging infrastructure.

The City's water system is officially designated in the Washington State Department of Health (DOH) records as the City of Shelton, with a public water system number of 78170N. It is a municipal, Class A water system.

Maintaining a current Plan is required to meet the regulations of DOH and the requirements of the Washington State Growth Management Act. In accordance with Washington Administrative Code (WAC) 246-290-100, this Plan:

- Defines the City's water service area.
- Describes the existing water system.
- Establishes minimum performance criteria for the system.
- Projects future demands within the service area.
- Identifies system deficiencies.
- Presents a capital improvements plan.
- Offers a financing and implementation plan.

This Plan is a 20-year plan, starting in the year 2021. The Plan was developed between 2017 and 2019 and updated in 2021, and the last year of data was provided in 2020.

ES.2 Water Requirements

The City's water system serves the City of Shelton, the Port of Shelton, and a portion of the City's Urban Growth Area (UGA). Figure ES.1 shows the existing land use by parcel within the City's Future Service Area. For planning purposes, the Future Service Area considers supplying the Future Service Area (as shown in Figures ES.1 and ES.2), which includes the two proposed annexation areas: Shelton Hills and Goldsborough Heights. Future land use, shown in Figure ES.2, portrays projected land use in the year 2039.

The water requirements were developed with historical data through the year 2020. The future water demand scenarios for the City (low, medium, and high) were projected by considering historical production and consumption trends (2009-2020), demographic trends and projections, and predictions of future impacts on demand due to factors such as water use efficiency (WUE) and the addition of future large water consumers. The medium scenario is used for the system analysis, which determines future pumping, storage, and distribution system requirements. The

low and high projection scenarios provide a sense of the extent of uncertainty in the demand forecasts.

From 2009 to 2020 the City's average day demands (ADD) were approximately 1.04 million gallons per day (mgd). Historical maximum day demands (MDD) were approximately 2.2 mgd. Table ES.1 summarizes the City's historical water use, including annual water use, ADD, and MDD.

A demographic analysis was performed for the City's Future Service Area. The Future Service Area was considered to be the City's existing water system and future service areas in the UGA. The most recent demographic forecasts for the UGA were published in the draft City Comprehensive Plan (2017), which included household, employee, and population forecast data. The population is predicted to grow by 2.8 percent on average annually between 2017 and 2036. Employment is predicted to grow by 5.8 percent on average annually between 2017 and 2036. The 2036 forecasts were used as a reference to escalate the population to 2041. These growth rates were used to predict the number of future water connections in the system, which are estimated to reach 6,461 by 2041.

All these factors contributed to the development of the demand projections shown in Table ES.2, Table ES.3, and Figure ES.3. Table ES.2 summarizes the equivalent residential unit (ERU) projections. The ERU planning value of 158 gallons per day (gpd) was used for the demand projections. Table ES.3 summarizes the projected average and maximum day demands. Figure ES.3 shows the historical and projected average and maximum day demands. The planning projection scenario predicts that the City's ADD will increase to approximately 2.15 mgd by 2041, and that the City's MDD will increase to approximately 4.60 mgd by 2041, using a peaking factor of 2.17.

Table ES.1 Historical Water Use

Year	Annual Water Use (gallons)	Average Day Demand (mgd)	Maximum Day Demand (mgd)	Date of Maximum Day Demand	Max Day/Avg. Day Peaking Factor
2009	392,292,510	1.07	2.61	7/27-7/31	2.43
2010	362,915,402	0.99	2.18	7/26-7/31	2.19
2011	373,165,418	1.02	2.08	9/6-9/12	2.03
2012	370,597,020	1.01	2.15	8/13-8/20	2.12
2013	364,370,398	1.00	2.15	7/29-7/31	2.16
2014	378,539,096	1.04	2.10	8/4-8/11	2.03
2015	404,388,789	1.11	2.19	6/30-7/6	1.98
2016	379,659,201	1.04	2.10	8/15-8/22	2.02
2017	406,622,372	1.11	2.36	7/31-8/7	2.12
2018	394,028,763	1.08	2.07	8/13-8/20	1.92
2019	365,779,458	1.00	2.03	6/17-6/24	2.03
2020	349,535,793	0.96	2.33	7/31-8/3	2.44
Average	**378,491,185**	**1.04**	**2.20**		**2.12**
75th Percentile	**392,726,573**	**1.08**	**2.23**		**2.17**

Table ES.2 ERU Projections for Low, Medium, High Demand Scenarios

Year	2021	2027	2031	2041
Low Demand (gpd)	6,425	8,115	9,349	12,242
Medium Demand (gpd)	6,425	8,115	9,349	12,242
High Demand (gpd)	6,409	8,146	9,411	12,382

Note:
(1) The difference between the low demand scenario and medium demand scenario is the MDD/ADD peaking factor so the ERU projections are the same for both scenarios.

Table ES.3 Projected ADD and MDD for Low, Medium, High Demand Scenarios

Year	ADD			MDD		
	2021	2031	2041	2021	2031	2041
Low Demand (mgd)	1.13	1.64	2.15	2.29	3.36	4.42
Medium Demand (mgd)	1.13	1.64	2.15	2.39	3.50	4.60
High Demand (mgd)	1.13	1.65	2.17	2.49	3.68	4.86

Note:
(1) The difference between the low demand scenario and medium demand scenario is the MDD/ADD peaking factor so the ADD projections are the same for both scenarios.

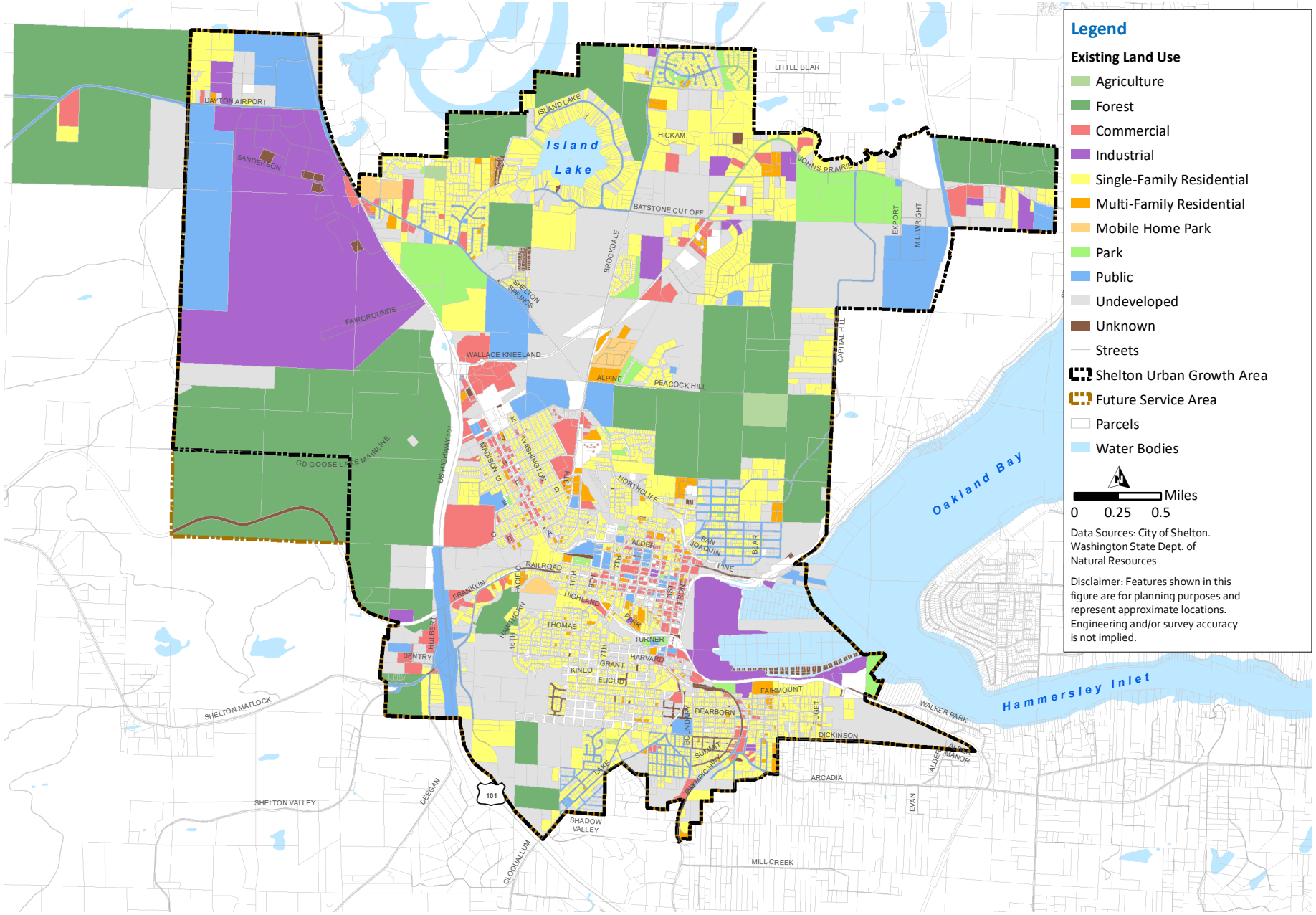


Figure ES.1 Future Service Area with Existing Land Use by Parcel

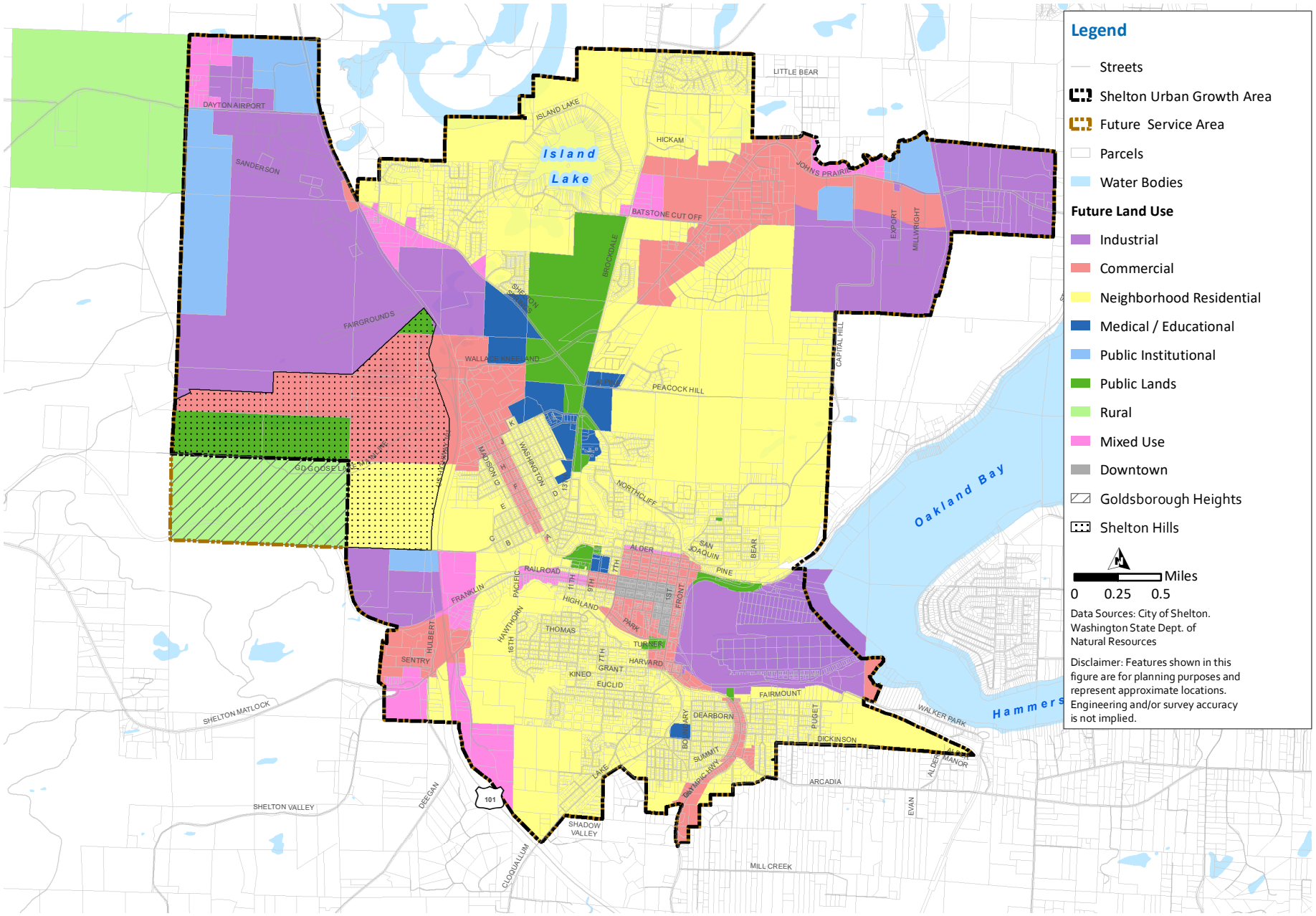


Figure ES.2 Future Service Area with Future Land Use

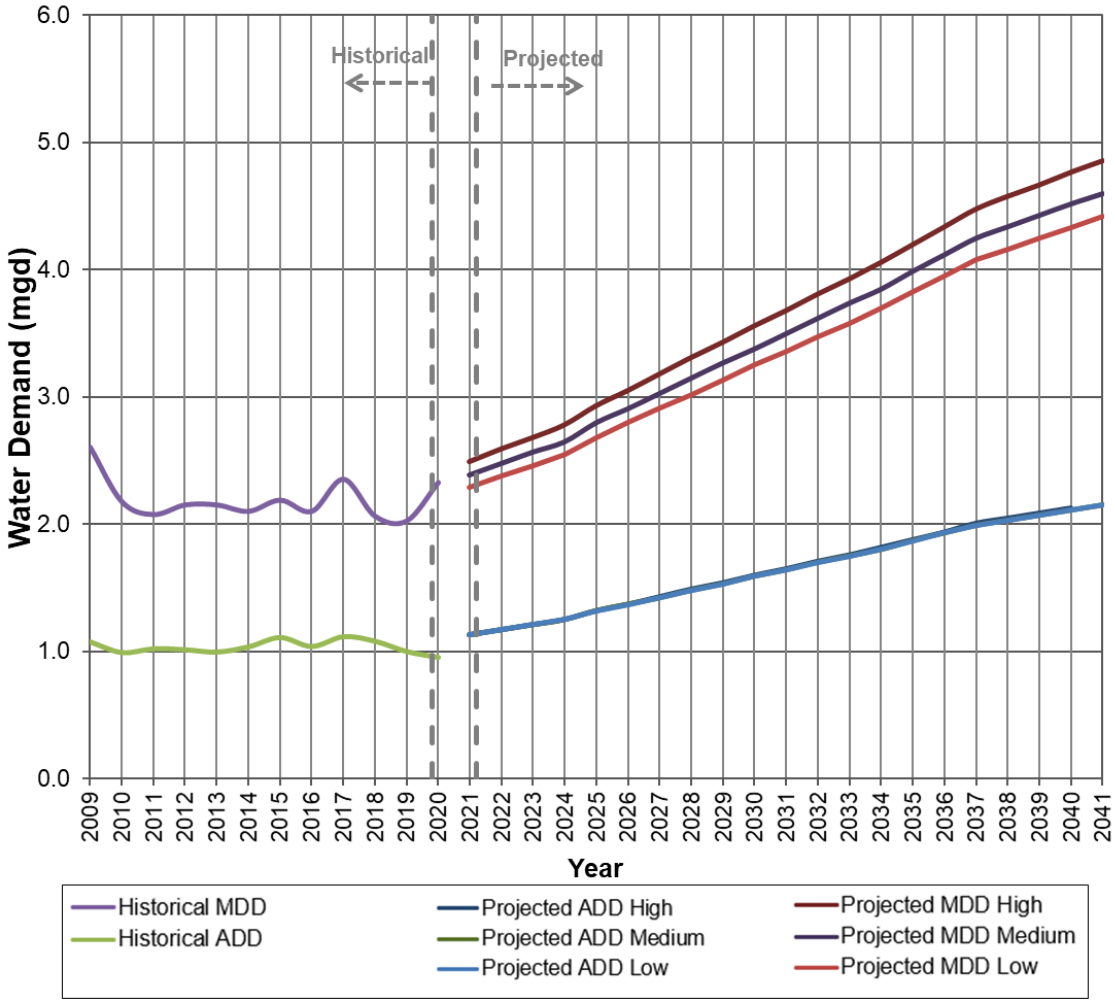


Figure ES.3 Historical and Projected Average and Maximum Day Demands

ES.3 Description of Water System

The City is located in Mason County, Washington, bordered to the east by Oakland Bay, a portion of the southeast section of Puget Sound. As of 2020, the water system had approximately 3,700 service connections. Figure ES.4 shows the City's boundary and UGA, as well as the surrounding region.

The City's water distribution system consists of nearly 66 miles of water main, three wells, five reservoirs, four booster pump stations (BPS), and pressure-reducing valves (PRVs). The City is currently divided into five distinct pressure zones: Angleside, Capitol Hill, High School, Mt. View, and Upper Mt. View. Historically, Shelton Springs served as the main source of supply for the City; however, it is no longer in use. Figure ES.5 displays the approximately locations of these key water system facilities. A hydraulic profile of the existing system is shown in Figure ES.6.

The City's policies and design criteria for water system planning are provided in this Plan and can be categorized into the following sections:

- Water service and service extensions, including Duty to Serve.

- System Criteria including facility requirements, reliability recommendations, and fire protection.
- Agency coordination.
- Financial policies.

The Plan summarizes the existing and proposed policies for the water service area and extension of water service to additional properties. The City is committed to serving customers within its retail service area (RSA) in accordance with established policies.

System criteria establish an optimum performance level and a standard of quality and quantity for the water system. These criteria dictate how the water system facilities should work together as a whole to provide reliable and redundant water service. The City sets performance criteria for water system pressure and velocities. It also sets criteria for source of supply and pumping, storage, and fire flows.

Shelton's Comprehensive Plan and Mason County's Shelton UGA Plan address future land use, development, and population trends within the Shelton UGA. This Plan includes policies from the City's Comprehensive Plan and Mason County's UGA Plan as they relate to the water system. The goals and policies for future annexations and the provision of services in the UGA provide direction regarding utility extension and the circumstances in which it will occur are included in this Plan as well.

The City currently has many financial policies related to the water system, which include user fees, water system development charges, fees pertaining to extensions, and policies regarding operating fund balances available for the utility system.

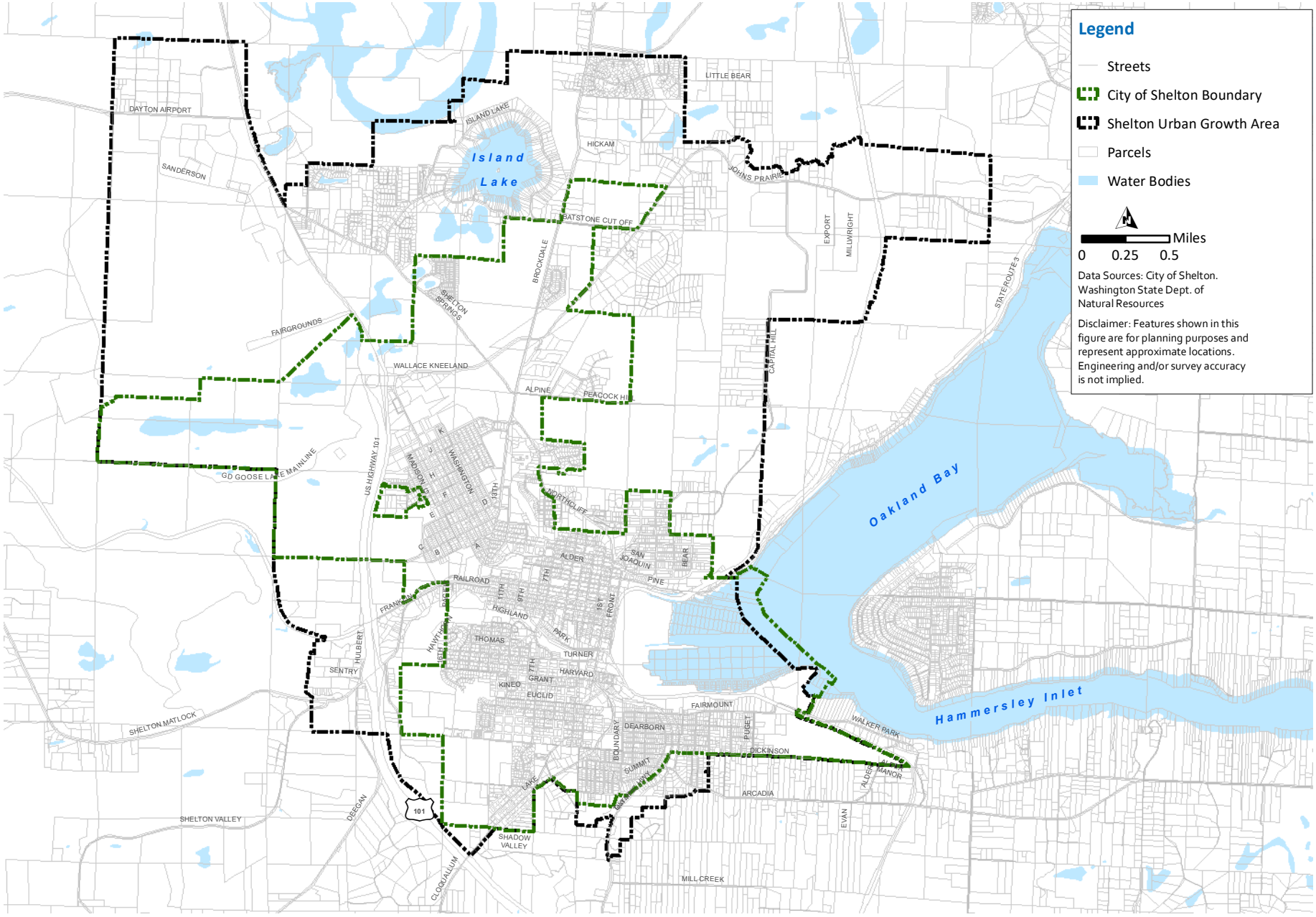


Figure ES.4 Shelton Area Map

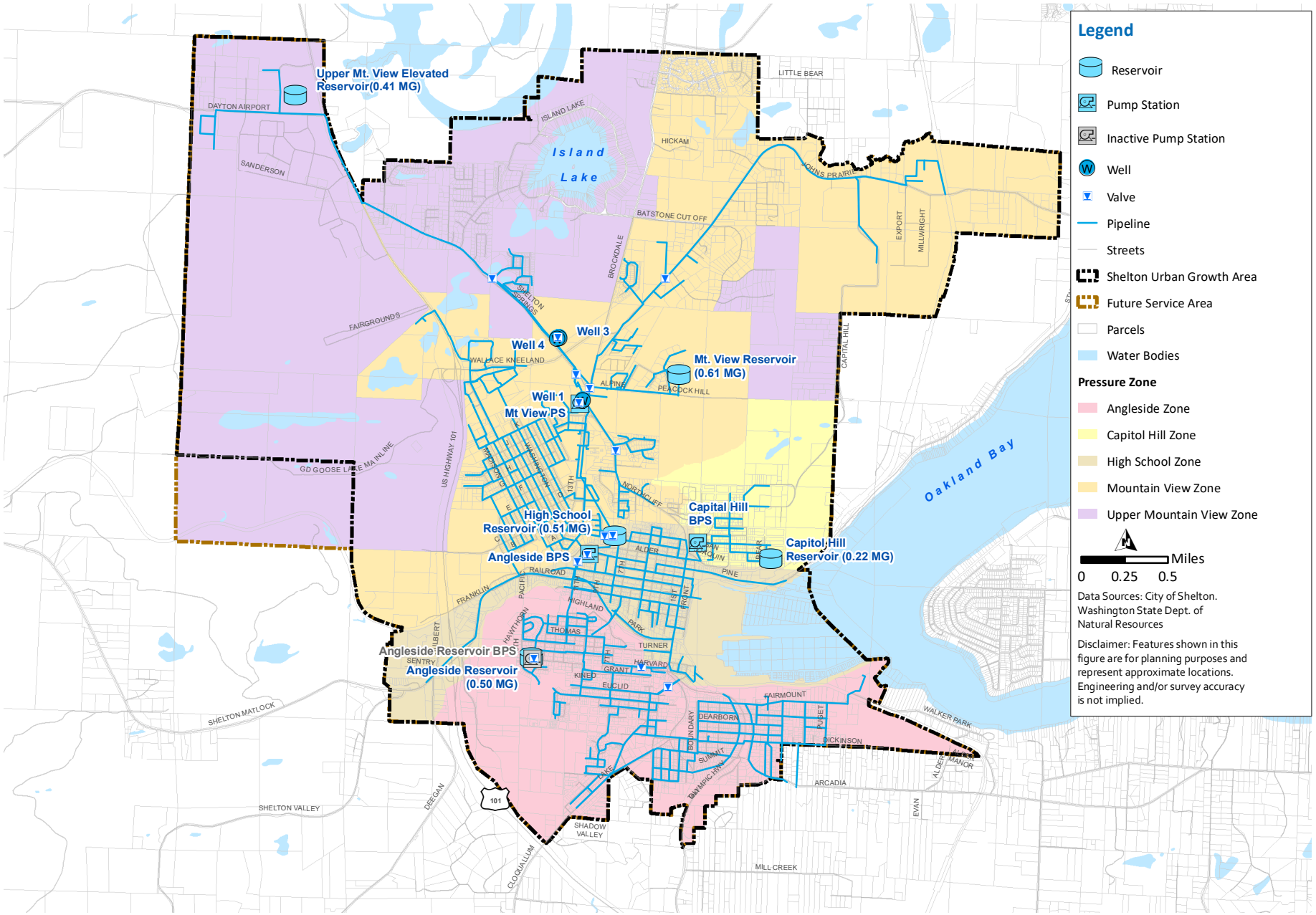


Figure ES.5 Shelton Existing Water System

500'
400'
300'
200'
100'
0'

UPPER MOUNTAIN VIEW RESERVOIR O.E. 440'
0.41 MG
396'
350'
UPPER MOUNTAIN VIEW PZ
201'
PRV
MOUNTAIN VIEW RESERVOIR O.E. 374'
0.61 MG
346'
277'
MOUNTAIN VIEW PZ
158'
MOUNTAIN VIEW BPS 1,395 GPM
PRV
HIGH SCHOOL RESERVOIR O.E.177'
0.51 MG
156'
110'
HIGH SCHOOL PZ
20'
PRV
CAPITOL HILL BPS 500 gpm
CAPITOL HILL RESERVOIR O.E. 334'
0.22 MG
306'
260'
CAPITOL HILL PZ
94'
ANGLESIDE BPS 2,400 gpm
PRV
VALVE
346'
ANGLESIDE RESERVOIR O.E. 374'
0.50 MG
300'
ANGLESIDE RESERVOIR BPS 2,350 gpm (INACTIVE)
ANGLESIDE PZ
58'

WELL 3
1,000 GPM
WELL 4
1,200 GPM
WELL 1
1,500 GPM

LEGEND

- UPPER MOUNTAIN VIEW PZ
- MOUNTAIN VIEW PZ
- HIGH SCHOOL PZ
- CAPITOL HILL PZ
- ANGLESIDE PZ

RESERVOIR (X.XX MG)

HGL
HIGH
ZONE
LOW

PRESSURE ZONE
HIGH: HIGHEST ELEVATION SERVED IN ZONE
LOW: LOWEST ELEVATION SERVED IN ZONE
HGL: HYDRAULIC GRADE LINE FOR ZONE

STANDPIPE
LIVE VOLUME INSIDE STANDPIPE

PRESSURE REDUCING VALVE

BOOSTER PUMPING STATION

WELL
SXX
XXX GPM

Figure ES.6
HYDRAULIC PROFILE
CITY OF SHELTON
COMPREHENSIVE WATER SYSTEM PLAN

carollo

$$$$USER$$$$
$$$$DATE$$$$
$$$$FILE$$$$

ES.4 Water Use Efficiency

The City recognizes the importance of WUE efforts and is in compliance with annual submissions of its WUE report to the DOH. As part of its water use efficient efforts, the City collects source meter data and service meter fata for all sources and all service connections. The Plan presents projections of future demands for the City's water system, which include a low demand scenario where future WUE measures are considered. The City completes an annual WUE performance report form, included in Appendix 4A. The City has adopted three WUE goals: reduce total consumption; maintain a distribution system leakage (DSL) below 8 percent; and reduce residential water consumption.

The City calculates a rolling 3-year average DSL, which has been between 7.3 percent and 13.6 percent in the past five years. WUE Rule requirements establish a ten percent or less DSL standard on a 3-year rolling average. Per requirements, the City has developed a water loss control action plan (WLCAP) with the following two main activities: conduct a water audit using the America Water Works Associations (AWWA) water audit methodology and complete a Leak Detection Survey.

ES.5 System Analysis

The City's water distribution system was evaluated for its supply and pumping capacity and reliability, the capacity of its storage facilities, and for adequate pressures and fire flow capacity using the City's updated hydraulic model under 2031 and 2041 conditions using the medium demand project scenario.

This Plan discusses recommendations to eliminate each of the deficiencies identified as part of the system analysis for this Plan. These recommendations form the basis of the City's Capital Improvement Program (CIP).

The City's water rights are included in Appendix 3B and were evaluated using DOH's Water Rights Self-Assessment form. Based on this assessment, the City has sufficient water rights to meet the 2041 planning year demands.

The capacity and redundancy of the City's supplies were evaluated to determine if the system meets the City's goal defined in the system analysis criteria. The total capacity of the wells is sufficient to provide system-wide projected 2041 MDD and ADD. However, to meet the City' supply goal of supplying MDD demands with the largest source out-of-service, a new well in the Angleside Pressure Zone (PZ) and a new Upper Mt. View BPS are recommended to provide redundancy.

The City's storage requirements are a function of the City's booster pump operation, water demands, supply capacity, and fire flow requirements. The Plan summarizes the available storage of the water system and describes the required storage components. The system analysis identifies storage deficiencies and presents recommendations to address these deficiencies. The storage deficiencies are driven by the large volume of dead storage due to customers at high elevations, and the large emergency storage requirements.

The City's distribution was found to be storage deficient under all planning years. Recommendation made to address the storage deficiencies include the following:

- Upper Mt. View Elevated Reservoir in Shelton Hills (Developer-funded).

- New Mt. View Reservoir near Well 1.
- New Angleside Reservoir.
- Capitol Hill Reservoir taken offline.

The hydraulic model was used to evaluate the distribution system under future demand conditions. As part of this Plan, the City's hydraulic model was updated and calibrated. The distribution system was then evaluated for the following criteria:

- High ADD Pressure: identify pressures greater than 80 pounds per square inch (psi) during ADD to recommend potential needs for individual PRVs to customers.
- Low peak hour demand (PHD) Pressures: minimum allowed pressure is 30 psi during PHD.
- High Velocity under PHD Conditions: identify pipes with maximum velocity greater than 8 feet per second (ft/s) (Likely pipe to upsize if future deficiencies identified in the area).
- Available fire flow: residual pressure at hydrants during MDD plus fire flow must remain above 20 psi. Figure ES.7 shows fire flow requirements.

The distribution system analysis identified areas of high pressures under 2021 ADD conditions, low pressures during 2041 PHD conditions, high velocities during 2041 PHD, and fire flow deficiencies during 2041 MDD + fire flow conditions using the City's hydraulic model. Figures showing the distribution system analysis results can be found in Chapter 5.

As a result of the distribution system analysis, pressure zone, pump station, and pipe improvement projects are recommended to address deficiencies. To address fire flow deficiencies, hydrant improvements and various pipe upsizing and looping projects are recommended. To address low pressures in the system, boosted zones within the Mt. View PZ and Angleside PZ are recommended. Pump station improvements at the Angleside Reservoir Pump Station (PS) and the Capitol Hill PS are also recommended to address deficiencies identified in the system analysis, as outlined in the Plan.

The limiting capacity of the City's physical water system was determined for the 2041 planning year with the assumption that all recommended improvement projects will be online. The limiting capacity analysis uses the methodology described in DOH Water System Design Manual (2009) Worksheet 6-1 and Table 6-1. With the recommended improvements, the City has sufficient physical capacity to meet the 2041, with the MDD source capacity being the most limiting.

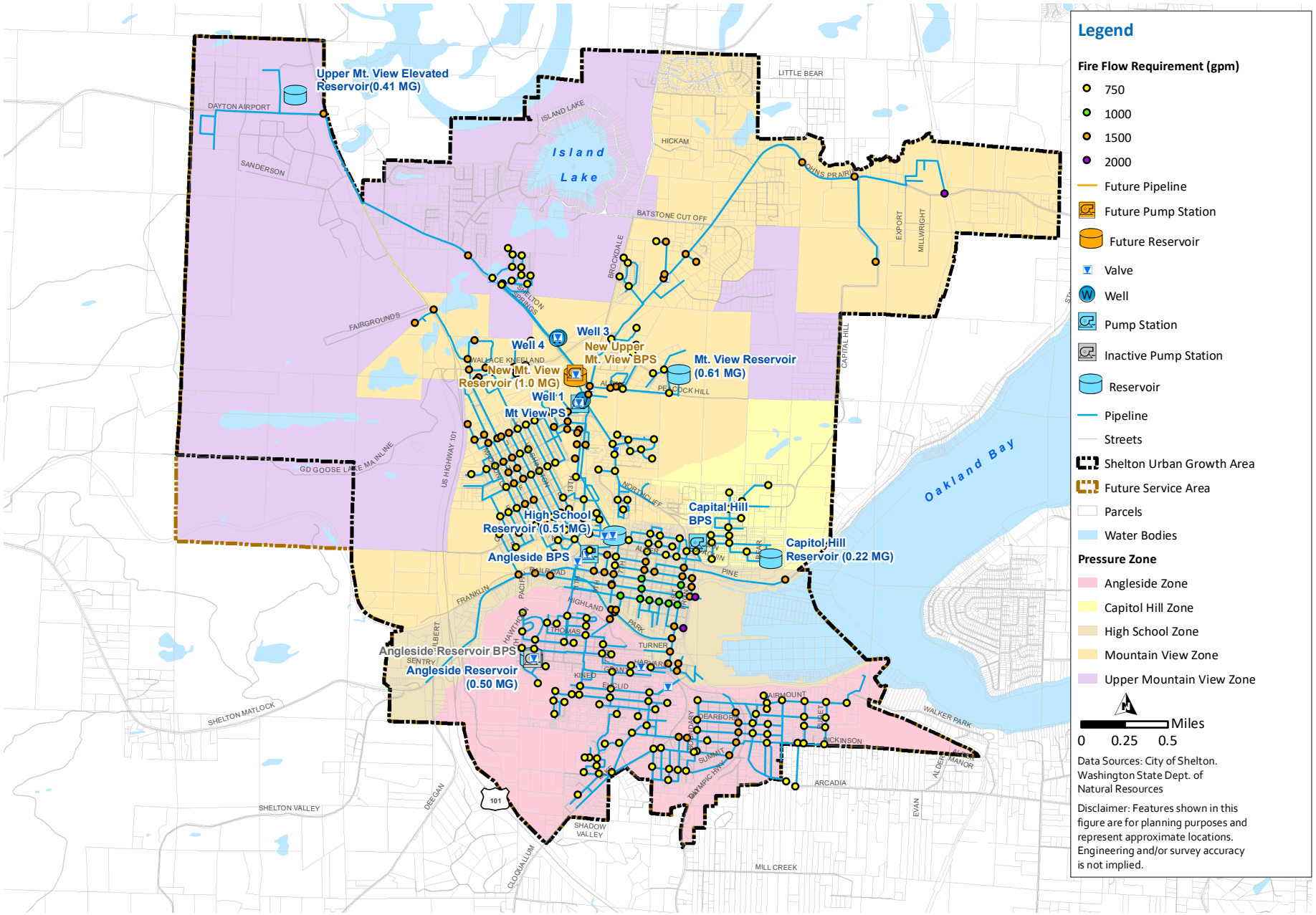


Figure ES.7 Fire Flow Requirements

ES.6 Water Quality

The City is defined as a Group A – Community Water System, and its primary concern is to monitor, protect, and enhance the quality of its drinking water sources.

As a Group A Community Public Water System, the City must comply with the drinking water standards of the federal Safe Drinking Water Act (SDWA) and DOH standards under the WAC 246-290. At this time, the City's water quality is in compliance with all state and federal water quality and reporting requirements.

The City maintains water quality within its system through the following approaches:

- Routine system flushing of its distribution system to maintain satisfactory water quality.
- A main replacement program to replace pipes with structural deficiencies.
- Installation of pH meters at all sources to better manage pH and thus reduce corrosion within the distribution system.
- Cross-connection prevention.

The City is recommended to take the following additional actions as part of its water quality planning programs:

- Track proposed new water quality rules and regulations being considered by the United States Environmental Protection Agency (USEPA) and DOH to plan for any effects that these new rules may have on the City's water system.
- Continue to implement its corrosion control treatment improvements as necessary to reduce levels of corrosion within the distribution system and private plumbing.

The Plan presents the water quality standards determined by the DOH and the USEPA through the SDWA. The SDWA is the primary federal law that establishes standards for drinking water quality in public water systems. The DOH has adopted the federal drinking water regulations under WAC 246-290 and accepted the primary responsibility (or "primacy") of enforcing water quality monitoring and reporting. All existing and anticipated drinking water regulations that apply to the City are summarized in the Plan. The Plan also summarizes water quality exceedances in the past 10 years for the City's distribution and source water quality monitoring program.

ES.7 Source Water Protection

The City's wellhead protection plan was updated as part of this Plan. The Plan summarizes key information from the wellhead protection plan. The full wellhead protection plan can be found in Appendix 7A.

Washington State regulations (WAC 246-290 135) require all Group A water systems to:

- Maintain a Sanitary Control Area Fact Sheet immediately surrounding all drinking water sources to protect them from contamination.
- Develop and implement a Source Water Protection Program, which for the City is a wellhead protection program.

The overall goal of the state wellhead protection (WHP) program is to prevent the contamination of groundwater used by Group A public water systems. This is to be accomplished by providing management zones around public wells, identifying existing groundwater contamination

sources, and managing potential sources of groundwater contamination prior to entry into the drinking water system. The City's wellhead protection plan includes the following elements:

- Completed susceptibility assessments.
- Delineated wellhead protection areas (WHPA) for each well and spring.
- Inventory of potential contamination sources in the WHPA that could threaten the water-bearing zone (aquifer) used by the wells or spring.
- Documentation of notification letters sent to the required entities, including Central Mason Fire and EMS, the Mason County Sheriff, and the City's Police Department.
- Management strategies and implementation tasks developed to protect the integrity of the City's water sources.
- Wellhead Protection implementation tasks to accomplish the protection of the wellhead protection area.
- Contingency plan for providing alternate drinking water sources if contamination does occur.
- Spill/Incident response planning, including spill response organization incident management responses, and recommended spill response improvements.

ES.8 Operations and Maintenance

The Plan provides an overview of the City's Water System organization, staffing, and operations and maintenance (O&M) program. The Plan documents existing practices and identifies changes that may improve system O&M.

The Plan summarizes the following responsibilities and tasks:

- Water System Management and Personnel.
- Operator Training.
- Water Quality Sampling Procedures and Program.
- Emergency Response Program, including: water system personnel, emergency call-up list, and notification procedures; vulnerability Assessment; and contingency Operational Plan.
- Safety Procedures.
- Cross-Connection Control Program.
- Customer Complaint Response Program.
- Record-Keeping and Reporting.

The Plan also reviews the water system's operating procedures and preventative maintenance including:

- Routine System Operation: Startup and Shutdown procedures, meter reading, and system performance evaluation.
- Preventative maintenance program: well pumps, generator, source meters, water treatment system, reservoirs, water meters, distribution system, and well houses.
- Equipment, supplies, and chemical listing.
- Vendor contacts.

ES.9 Capital Improvement Program

Chapter 9 of the Plan combines the various projects that were recommended throughout the Plan for the City's water system and presents a comprehensive CIP. The purpose of the CIP is to provide the City with a guideline for the planning and budgeting of its water system. The CIP consists of schedule and cost estimates for each project. Project phasing is described as either short-term (2021-2030) or long-term (2031-2041). Detailed descriptions of each project, which include the cost estimates and implementation timing, are also included in Appendix 9A.

Capital projects were categorized by the nature of the infrastructure involved, including:

- Supply (S): New well projects.
- Storage (ST): New reservoir projects.
- Pressure Zone (PZ): Improvement projects that consist of changes to the operations of pressure zones.
- Pump Station (PS): New pump station projects and improvement projects related to existing pump stations.
- Distribution System (D): Projects that contain new pipe and pipe upsizing projects.
- General (G): Annual projects that occur system-wide and include repair and replacement (R&R) projects and fire flow response projects.

Projects were allocated into three types to support development of rates and standard development charges: growth, repair and replacement, and level of service.

The CIP cost estimates presented in this chapter are Class 5 estimates, as established by the American Associate of Cost Estimators (AACE). Class 5 estimates are budget level estimates. Actual costs may vary from these estimates by -30 percent to +50 percent. These costs were determined using both Carollo Engineers, Inc. (Carollo) understanding of project locations and current conditions and the City's costs for similar and recently constructed capital projects. The cost estimates have been prepared for the general master planning purposes. Capital costs, or "total project costs", are presented in the CIP.

The CIP projects were summarized by project type and category in Tables ES.4 and ES.5, respectively. The total Water CIP cost over the next 20 years is approximately $30.4 million, which equates to approximately $1,521,000 annually in current dollars. Of the total cost, $6.7 million is budgeted for the short-term phase and approximately $20.8 million is budgeted for the long-term phase.

When considering CIP costs by project type, approximately 63 percent of the CIP costs are Level of Service projects. R&R projects make up approximately 19 percent of the CIP costs, and growth projects make up about 18 percent of the CIP costs.

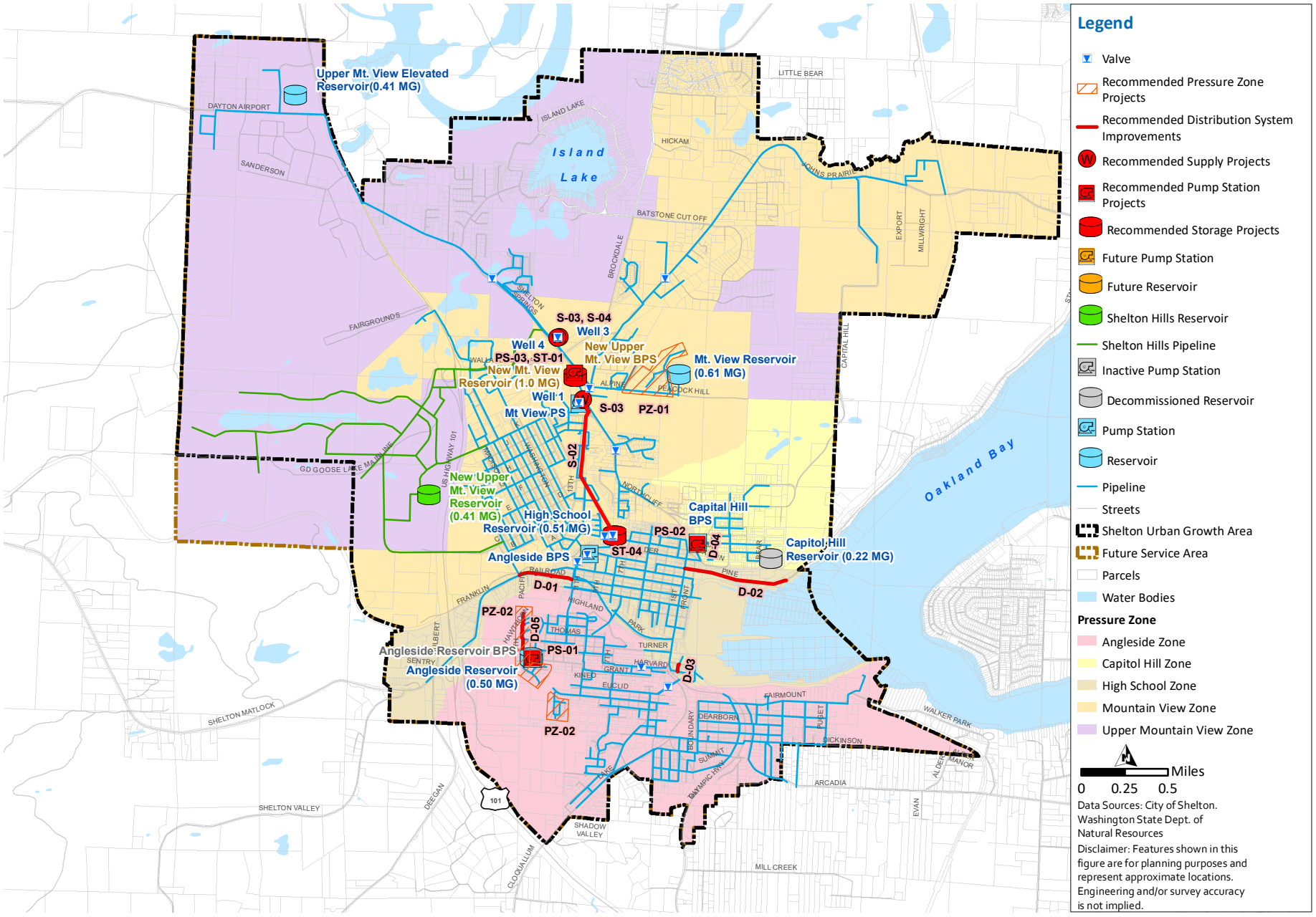
When considering CIP costs by project category, as shown in Table ES.5, approximately 19 percent of the CIP costs occur from general projects. Storage projects make up approximately 26 percent of the CIP, and pump station projects make up approximately 24 percent of the CIP. Figure ES.8 shows all the recommended distribution system and pressure zone projects and provides the locations of the recommended supply and storage projects with identified locations.

Table ES.4 CIP Summary by Project Type

Project Type	Total CIP Cost Estimate	CIP Phasing	
		Short-term (2021 – 2030)	Long-term (2031 – 2041)
Growth	$ 5,515,500	$ 1,555,500	$ 3,960,000
Repair & Replacement	$ 5,859,000	$ 3,599,000	$ 2,260,000
Level of Service	$ 19,043,500	$ 4,513,500	$ 14,530,000
Total Cost	**$ 30,418,000**	**$ 9,668,000**	**$ 20,750,000**
Annual Cost	*$ 1,521,000*	*$ 967,000*	*$ 2,075,000*

Table ES.5 CIP Summary by Project Category

Project Category	Total CIP	Percentage
General	$ *5,904,000*	*19.4%*
Supply	$ *4,884,000*	*16.1%*
Pressure Zone	$ *2,972,000*	*9.8%*
Storage	$ *7,980,000*	*26.2%*
Pump Station	$ *7,361,000*	*24.2%*
Distribution Pipeline	$ *1,317,000*	*4.3%*
Total	**$ 30,418,000**	**100%**



Legend

- Valve
- Recommended Pressure Zone Projects
- Recommended Distribution System Improvements
- Recommended Supply Projects
- Recommended Pump Station Projects
- Recommended Storage Projects
- Future Pump Station
- Future Reservoir
- Shelton Hills Reservoir
- Shelton Hills Pipeline
- Inactive Pump Station
- Decommissioned Reservoir
- Pump Station
- Reservoir
- Pipeline
- Streets
- Shelton Urban Growth Area
- Future Service Area
- Parcels
- Water Bodies

Pressure Zone

- Angleside Zone
- Capitol Hill Zone
- High School Zone
- Mountain View Zone
- Upper Mountain View Zone

Miles
0 0.25 0.5

Data Sources: City of Shelton. Washington State Dept. of Natural Resources

Disclaimer: Features shown in this figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy is not implied.

Figure ES.8 Capital Improvement Program Projects

ES.10 Financial Plan

The Financial Plan summarizes the financial status of the City's water utility and provides a cursory evaluation of the ability of the City to finance necessary capital improvement projects identified in the CIP. Financial status of the water utility, funding required to finance the scheduled improvements, potential funding sources, and the impact of water system improvements on water rates are presented.

The City has adequate revenue from water rates, general facility charges (GFC), and funds included in the 2021-2023 biennial capital budget for the State of Washington to rehabilitate Well 1 to meet the expected operating costs of the water system through 2029. However, GFCs should be reassessed to ensure the maximum amount of revenue can be obtained. A rate study is also recommended to address affordability by customer class. No new debt is issued in the financial forecast, but existing debt is being paid.

Capital projects are projected to range from $170,000 to $2.4 million annually through 2030. Water rates are projected to increase to 10 percent through 2022 and then increase at 3 percent through 2029. With this rate increase, the City is able to meet their revenue goal to complete the CIP projects identified in the financial analysis.

Chapter 1

INTRODUCTION

1.1 Purpose

The City of Shelton (City) prepared this Water System Plan (Plan) update to document the current status of the water system and evaluate the future needs of the water utility. The Plan is an update to the City's 2010 Plan. The purpose of this plan is to document changes to the City's water system, identify required system modifications, and to appropriately outline capital improvement projects to meet system growth and address aging infrastructure.

Maintaining a current Plan is required to meet the regulations of the Washington State Department of Health (DOH) and the requirements of the Washington State Growth Management Act. This Plan complies with the requirements of DOH as set forth in the Washington Administrative Code (WAC) 246-290-100, Water System Plan.

This Plan is a 20-year plan, starting in the year 2021. The Plan was developed between 2017 and 2019 and updated in 2021, and the last year of data was provided in 2020.

1.2 Objectives

This Plan has been prepared to serve as a guide for planning and designing future water system facilities and to assist the City in using its water resources in the most efficient manner possible. Identified in this Plan are system improvements intended to meet the expanding and changing needs of the City. Specific objectives of this Plan are addressed by individual chapters presented herein and include the following:

- Develop a document that can be updated periodically as additional information on the water system is obtained.
- Water Requirements (Chapter 2): Perform a demographic and demand analysis to predict current and future demands within the City's Service Area.
- Description of Existing System (Chapter 3): Document the existing water system and planning considerations that influence the Plan. These include the study area, policies and criteria-related documents, and the existing infrastructure (e.g., supply, storage, booster pump stations, interties, and distribution).
- Water Use Efficiency (Chapter 4): Summarize the City's Water Use Efficiency (WUE) program, and project future conservation water demand.
- System Analysis (Chapter 5): Assess the capability of the existing water system to meet existing and projected future demands and identify water system deficiencies. Calibrate and update the City's hydraulic model of the water system. Identify potential improvements, including supply, storage, booster pump stations, and distribution.
- Water Quality (Chapter 6): Summarize the water quality regulations and reporting requirements the City must meet. Evaluate the water quality against the regulations, summarizer any water quality violations, and recommend improvements if necessary to meet anticipated or future water quality regulations.

- Source Water Protection (Chapter 7): Complete required source water assessment planning as required for Group A public water systems. Update the City's Wellhead Protection program.
- Operations and Maintenance (Chapter 8): Review, update, and evaluate the City's Operations and Maintenance (O&M) Program. Identify recommendations for new or updated maintenance programs as needed.
- Capital Improvement Program (Chapter 9): Summarize the recommended improvements for the sources of supply, storage, distribution and transmission, and pressure zones in accordance with the City's Policy and Criteria. Develop a program of capital improvements, including priorities for design and construction.
- Financial Program (Chapter 10): Develop a plan for financial backing of required system improvements.
- Prepare an environmental checklist for city council action on the proposed water system plan. The checklist is to be reviewed by the various City departments for a threshold determination.
- Prepare the Plan to comply with the requirements of the DOH.

1.3 Location

The City is located in Mason County, Washington, bordered to the east by Oakland Bay, a portion of the southeast section of Puget Sound. Nearby cities include Carmill Station to the southeast and Oakland and Bayshore to the northeast.

1.4 Ownership and Management

The City's water system is officially designated in the DOH records as City of Shelton, system identification number DOH ID 78170N. It is a municipal, Class A water system. The City's water system serves the City and portions of its Urban Growth Area (UGA) as defined by its water service area. The water services boundaries are further discussed in Chapter 3.

A City Council consisting of seven elected officials is responsible for policymaking. Every two years, councilmembers appoint one member of the council to serve as mayor. The council appoints a professional city a manger who is responsible for administration, including the daily operations of city government, personnel functions, and preparing the city budget. The elected councilmembers and City Manager are as follow:

- Mayor: Kevin Dorcy.
- Deputy Mayor: Deidre Peterson.
- Councilmembers: James Boad, Kathy McDowell, Eric Onisko, Joe Schmit, and Megan Fiess.
- City Manager: Jeff Niten.

The Public Works Director, the City Engineer, the Street, Water, and Equipment Maintenance, and Repair (EM&R) Superintendent, and the water field supervisor manage the day-to-day operations of the water system. The Public Works Director, the Finance Director, the City Manager, the Mayor, and the City Council work together to set water system policies and manage the water system's finances. The following staff are currently involved in the management of the water system:

- Public Works Director: Jay Harris.

- City Engineer: Ken Gill.
- Street, Water, EM&R Superintendent: Mike Albaugh.
- Water Field Supervisor: Matt Deemer.

1.5 Environmental Assessment

A State Environmental Policy Act (SEPA) Checklist has been prepared for this Plan. The City anticipates this Plan does not have probable significant adverse impacts on the environment in accordance with the Determination of Non-Significance (DNS) under WAC 197-11-340(2). The SEPA Checklist and DNS are included in Appendices 1A and 1B.

1.6 Approval Process

This Plan is required to meet state, county, and local requirements. It complies with the requirements of the DOH as set forth in WAC 246-290-100. The City will submit this Plan to the DOH, Mason County, and adjacent utilities as part of the Agency Review process. See Appendix 1C for the Comment Letters.

As required by WAC 246-290-108, a local government consistency review checklist has been prepared and is included in Appendix 1D. The Adopting Resolution will be included in Appendix 1E, upon Plan approval by the city council. The Water System Plan Submittal Form is included in Appendix 1F.

1.7 DOH Water System Plan Checklist

To assist review of the Plan, Table 1.1 summarizes the DOH Water System Plan checklist with references to the required information.

Table 1.1 DOH Water System Plan Checklist

Required	Content Description	Plan Location
	Description of Water System	
(✓)	Updated WFI, signed and dated	App 3B
(✓)	Ownership and management	Section 1.4
(✓)	System history and background	Section 3.2.2
(✓)	Inventory of existing facilities, including sources, distribution, storage, pump stations, and treatment	Section 3.4
(✓)	Description of and discussion about related plans: CWSP, groundwater management plan, WRIA and City/County land use plans & zoning.	Chapter 3, Chapter 7
(✓)	Service Area Maps: clearly identifying existing, retail and future service areas.	Section 3.2
(✓)	Policies: Service area, SMA, conditions of service, annexation	Section 3.6
(✓)	Duty to serve requirement: procedures, conditions, appeals	Table 3.9
(✓)	Consistency from local planning agency (LGC checklist)	App 1D
	Planning Data	
(✓)	Demand analysis based on water use: • Include analysis of population, service connections & ERUs • Source and service meter data (preferably three or more, typically 6 years). Provide monthly and annual production and consumption totals. • Provide usage by customer class. Analyze industrial and commercial demands separate from the residential demand and multifamily structures separate from the single family residences. • Define ERU	Chapter 2

Required	Content Description	Plan Location
	• Provide data and assumptions (including DSL) for calculation MDD, PHD, and ADD • Demand analysis per pressure zone and the whole system • Consider water supplied to other systems • If >1000, include seasonal variations in consumption by customer class	
(✓)	Provide 6 & 20 year projections: • Provide 6 & 20 year projections for demand forecasts with and without expected efficiency savings (conservation)	Section 2.5
(✓)	Interties – discussion of all existing and proposed interties and copies of agreements	Section 3.4
(✓)	Provide 6 & 20 year projections for land use and zoning	Section 2.3
(✓)	Distribution System Leakage percentage and volume	Section 2.4.5, Table 2.8
	System Analysis	
(✓)	Provide assumptions and basis of analysis:	Section 3.7
	• System design standards	Table 3.9
	• Policies on operations and expected level of service (such as standby storage, pumping restrictions and emergency back-up power)	Table 3.7, 3.9
	• Fire flow requirements and if nesting is allowed. May need a confirmation from local fire authority.	Table 3.8, 3.9
(✓)	System inventory and description	Section 3.2
(✓)	Capacity analysis (legal and physical capacity):	Chapter 5
	• Limiting factor analysis (WSDM worksheet 6-1) • Include the results of the limiting factor analysis in a table • Show source, pumping, treatment, storage, and distribution capacities • Analysis per pressure zone and the whole system • Water rights analysis – include water right self-assessment forms for existing, 6 & 20-year projections, including copies of water right certificate(s)	
(✓)	Hydraulic analysis of distribution system: • Describe the model used • Evaluate the system based on PHD and MDD + Fire flow • Evaluate the current conditions, and 6- and 20-year planning periods • Check minimum pressures and maximum velocities • Include assumptions of model, pressure zone boundary conditions, and a summary of model in/out information. Storage assumptions should be based on minimum reservoir levels. • Include verification and calibration methods and results • Summary of system deficiencies	Chapter 5
(✓)	Analysis of possible improvement projects	Chapter 5, Chapter 9
	Water Use Efficiency Program	
(✓)	WUE Program per WAC 246-290-810: • Describe the current WUE program • Describe WUE goal & document public adoption process • Describe measures that will be implemented to achieve the goal & include schedule & costs in the budget	Chapter 4

Required	Content Description	Plan Location
	• Describe process used to evaluate the WUE measures you did not implement • Describe yearly consumer education • Estimated projected water savings from selected measures • Describe process that will be used to determine effectiveness of the program	
	>= 1000 Connections • Estimate water saved from efficiency measures over the past 6 years • Quantitative evaluation of measures to determine if they are cost-effective, include marginal costs of water production • Evaluate measures for cost-effectiveness if shared with other systems • Quantitative of qualitative evaluation of measures to determine if they are cost-effective from the societal perspective	
(✓)	Source & Service Meters - or schedule w/ activities to minimize leakage	Section 4.5.2
(✓)	Ten percent of all service meters should be replaced annual to maintain 10-year life span.	Section 4.5.2
(✓)	Water Loss Action Plan WAC 246-290-820	Section 4.7
(✓)	Water supply characteristics, description & discussion on effect of water use	Section 3.5.2, Chapter 4
(✓)	Source of supply analysis and evaluation of supply alternatives	Chapter 5
(✓)	>= 1000 connections explore reclaimed water opportunities	Section 4.9
	Source Water Protection	
(✓)	Wellhead protection program	App 7A
(✓)	2 year update (contaminant inventory, letters, and map)	App 7A
(✓)	Analysis and discussion of Water Quality	Ch. 6
	Operation and Maintenance Program	
(✓)	Water system management and personnel	Section 8.2
	Operator certification	Section 8.2.2
(✓)	Routine operating procedures and preventative maintenance: • Standard Operating Procedures (SOP Manual-Surface Water Treatment Plant)	Section 8.4, App 8B
(✓)	Water quality sampling procedures & program	Chapter 6
(✓)	Coliform monitoring plan, including maps (and triggered source monitoring plan)	Section 6.2, App 6C
(✓)	Emergency response plan: • Water system contacts • Vendor contacts (Equipment replacement, water haulers, etc.) • Example notices (water outages, BWA, coliform MCL, emergency conservation) • Emergency government officials contact info (ODW, County Health Dept., State and County Emergency Operations Centers) • List of emergency sources and interties • Emergency response planning activates to ensure preparedness	Section 3.5.2 Section 8.6, App 8A, App 6C

Required	Content Description	Plan Location
(✓)	Water shortage plan and service reliability	Section 8.6.3, Section 7.9, App 8A, App 7A
(✓)	Cross-connection control program	App 8C
(✓)	Recordkeeping, reporting, and customer complaint program	Sections 8.9, 8.10
(✓)	Summary of O&M deficiencies	8.11
	Distribution Facilities Design and Construction Standards	
(✓)	Standard construction specification for distribution mains	App 3D
	Improvement Program	
(✓)	Capital improvement schedule for 6 and 20 years • Include inventory and assessment of existing system components	Ch. 9
	Financial Program	
(✓)	Summary of past Income and Expenses (at least 2 years)	Section 10.2
(✓)	>= 1000 connections – Balanced six-year budget	Section 10.4
(✓)	A plan for collecting the revenue necessary to maintain cash flow stability and to fund the capital improvement program and emergency improvements	Ch. 10
(✓)	Financial evaluation that has considered: • The affordability of water rates • The feasibility of adopting and implementing a rate structure that encourages water demand efficiency.	Ch. 10
(✓)	Show revenue and cash flow stability to fund capital and emergency improvements	Section 10.4
(✓)	Affordable rate structure that covers the full cost of producing, treating, storing, and distributing water to customers now and into the future	Ch. 10
	Miscellaneous Documents	
	Meeting of the consumers (may be combined with WUE public meeting)	App 1E
	Date, agenda, meeting minutes	App 1E
	County/Adjacent Utility Correspondence	App 1C
	>= 1000 connections – SEPA Determination	App 1A/1B
(✓)	Agreements: franchise, wheeling, financial aid, inter-local and other agreements (if any exist)	App 3A
	Satellite Management Program	n/a

Note:
Abbreviations: ADD - average day demand; App - appendix; BWA - boil water advisory; CWSP - coordinated water system plan; DSL - distribution system leakage; ERU - equivalent residential unit; LGC - local government consistency; MCL - maximum contaminant level; MDD - maximum day demand; ODW - Office of Drinking Water; PHD - peak hour demand; SMA - satellite management agencies; SOP - standard operating procedure; WFI - water facility inventory; WRIA - water resource inventory area; WSDM - water system design manual.

Chapter 2

WATER REQUIREMENTS

2.1 Introduction

This chapter presents a demographic analysis of historical water production and consumption trends, as well as water demand forecasts for the ten and twenty year planning periods for the City of Shelton's (City's) water system. This is a 20-year Plan, starting in 2021 and extending through 2041. The Plan was developed between 2017 and 2019 and updated in 2021. Projecting realistic future water demands is necessary for evaluating the capability of the water system to meet future water service requirements, planning for infrastructure projects, and securing adequate water supply. Future water demands are used as input conditions for the analyses of the water system that are used to develop the Capital Improvement Program (CIP).

Accurate demand projections require a detailed demographic analysis to predict where and how much growth will occur. This chapter first describes existing and future land use within the City. Demographic trends include: the City, its Urban Growth Area (UGA), and proposed annexation areas (Shelton Hills and Goldsborough Heights [GH]). Growth rates were developed from the City's draft 2017 Comprehensive Plan. The City is expecting significant growth due to growth in the UGA and proposed annexation areas that will significantly increase water demands.

The next requirement for developing accurate demand projections is a thorough review of the City's unique historical water consumption trends. The unique consumption trends of the City's various customer classes are evaluated from historical customer billing data. The historical average water use for single-family residential customers establishes the City's current Equivalent Residential Unit (ERU) water use. Multiunit residential and non-residential customer consumption is expressed in terms of ERUs, based on the comparison of these customers' water use to the ERU value. Historical production data is used to determine the maximum day demand (MDD) to average day demand (ADD) peaking factor. A comparison of production data versus consumption data determines distribution system leakage (DSL) as defined by the Washington State Department of Health (DOH).

The water use parameters found in the historical production and consumption data, along with the growth rates developed in the demographic analysis, are used to predict a range of future water demand. Low, medium, and high demand projection scenarios were developed as described in the following sections. The system is evaluated for capacity deficiencies in the water system analysis based on the medium demand projections presented herein.

Note, summary statistics in this Chapter include the average and 75th percentile. The average represents the typical value over the period of record and, by its nature, is commonly exceeded. The 75th percentile represents the value below which 75 percent of years may be found. For Master Planning, where the goal is to identify needed system improvements, using the 75th percentile values provides a more conservative estimate than using average values for sizing infrastructure capacity needs.

The following sections describe the available data sources, methodologies used, recommended planning values, and resulting demand projections in further detail.

2.2 Land Use

The City's water system serves the City of Shelton, the Port of Shelton, and a portion of the City's UGA. Figure 2.1 shows the existing land use by parcel within the City's Future Service Area.

For planning purposes, the Future Service Area considers supplying the Future Service Area (as shown in Figures 2.1 and 2.2), which includes the two proposed annexation areas: Shelton Hills and GH.

Future land use, shown in Figure 2.2, portrays projected land use in the year 2036. These land use maps are used to distribute existing and future water demands throughout each of the City's pressures zones in the water system hydraulic model, for the purpose of evaluating the water distribution system. Note, land use categories were combined to be consistent customer classes, presented in subsequent sections. Future land use designations for the Future Service Area are shown in Figure 2.2 and are consistent with the City's Comprehensive Plan.

2.3 Demographic Analysis

A demographic analysis was performed for the City's Future Service Area. The last year of data provided for the demographic analysis was 2017. The Future Service Area was considered to be the City's existing water system and future service areas in the UGA. The most recent demographic forecasts for the UGA were published in the draft City Comprehensive Plan (2017), which included household, employee, and population forecast data are shown in Table 2.1. The 2036 forecasts were used as a reference to escalate the population to 2041.

Table 2.1 Demographic Growth Rates

	2016	2021	2027	2031	2036	2041
Population	13,816	16,218	19,101	21,503	23,425	25,347
Households	5,379	6,313	7,434	8,181	9,115	9,862
Jobs	6,489	9,607	13,349	15,467	18,961	21,445

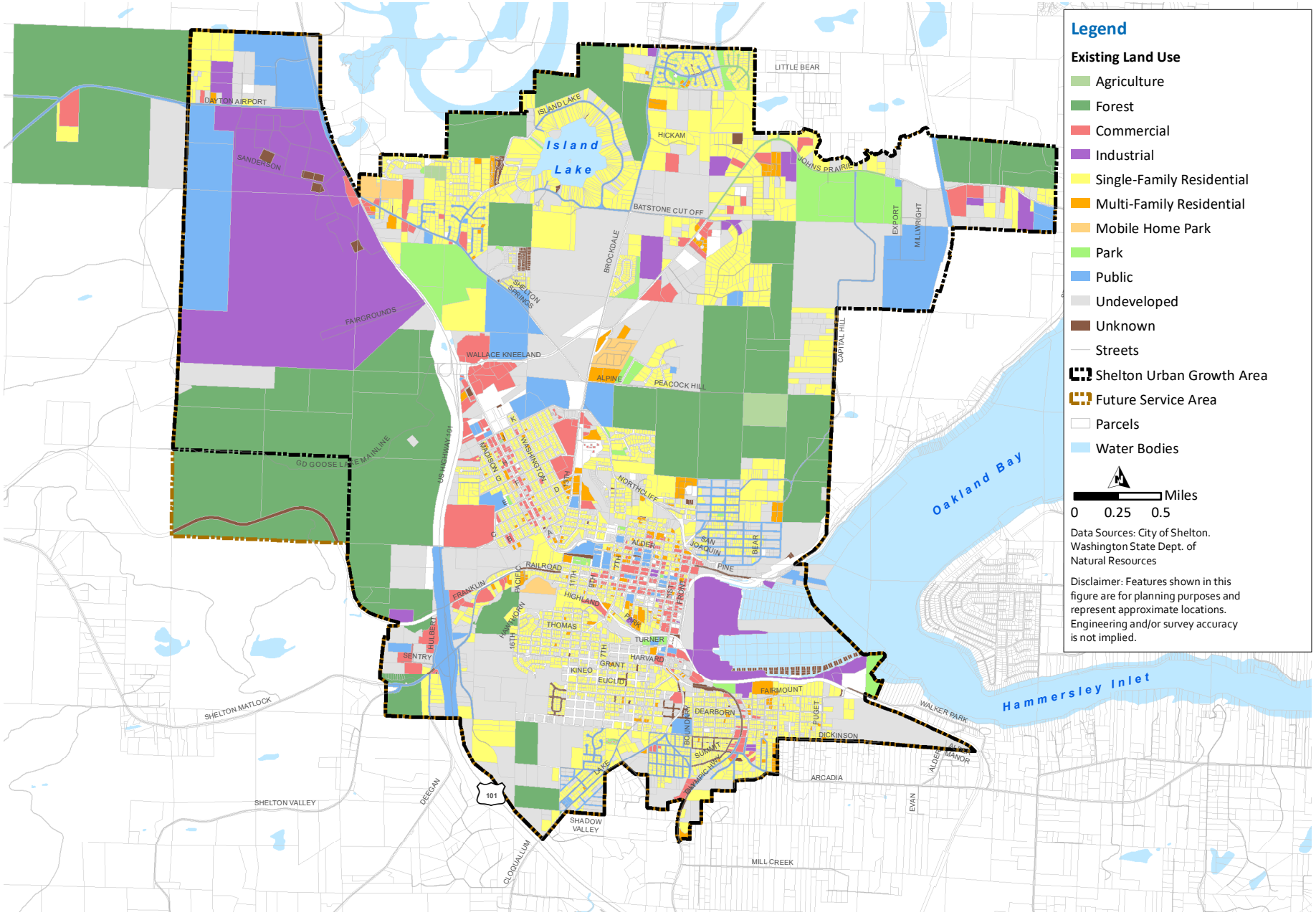


Figure 2.1 Future Service Area with Existing Land Use by Parcel

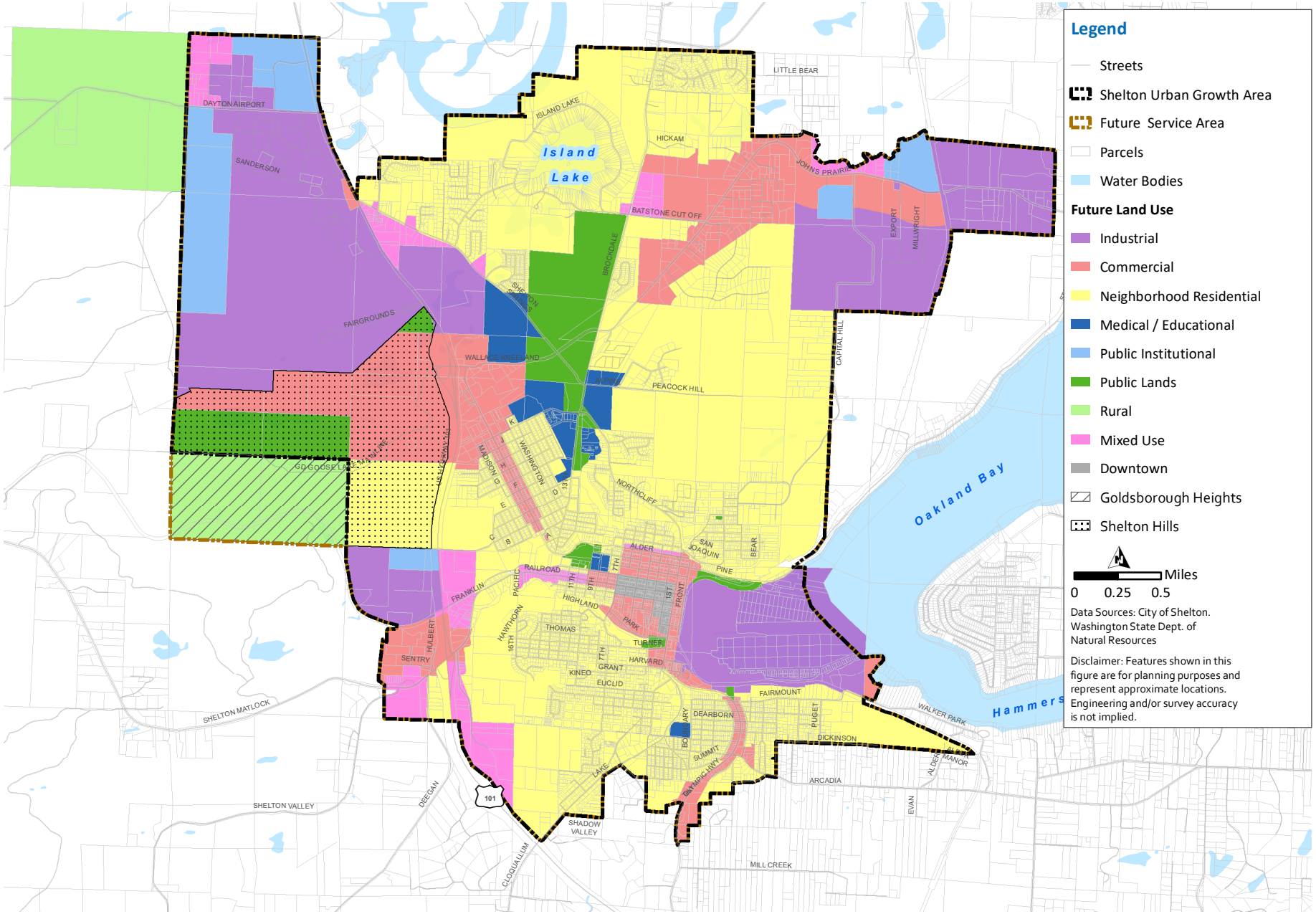


Figure 2.2 Future Service Area with Future Land Use

2.4 Historical Production and Consumption

Historical production, number of accounts, and consumption data were obtained from City records for the years 2009 through 2020. These historical demand data were evaluated to characterize the unique water use of the City's customers. Several key demand parameters were generated from this data: water use per customer class, water use per connection for each customer class, water use per ERU, MDD to ADD peaking factors, and DSL. These parameters are used as the basis for future demand projections and are described in detail below.

2.4.1 Historical Water Production

The City's water system is supplied by three different wells – Well #1, Well #3, and Well #4. Water production varies annually in response to system demand, which is correlated to weather, development, economic conditions, and conservation activities. Total and individual well production has remained relatively steady in recent years, as shown in Figure 2.3. The vast majority of the water produced, 92 percent between 2009 and 2020, comes from Wells #3 and #4. Well #1 has historically provided peaking supply during summer, which represents a relatively small percentage of the annual water produced.

In 2016, the City completed upgrades to Well #3, which limited its annual production and Well #1 operated in its place. Since then, the City has continued to use Well #1 as a year-round production well, rather than for summer peaking; therefore, it is anticipated that well use will be more equal in the future.

2.4.1.1 Average Day Demand

The ADD represents the average daily demand for the year, which is typically used for operational evaluations. It is calculated by dividing the total water produced by the number of days per year. These values, for the years 2009 through 2020, are presented in Table 2.2. The relatively steady water use in recent years results in little difference between summary statistics (i.e., the average value is very close to the 75th percentile value).

2.4.1.2 Maximum Day Demand

Identifying MDD is critical for establishing system supply capacity, pump station discharge rates, reservoir capacity, and pump sizes. Historical MDD values are equivalent to the highest production in one day in a given year, and are usually during the summer when irrigation is occurring. The City collects water production on a weekly basis, but does not collect daily data.

In the City's 2010 Water System Plan, the ratio of MDD to average daily demand was 1.26 for the week in which the MDD occurred. This factor was used to estimate the MDD based on the maximum production week as presented in Table 2.2. The week of occurrence for the maximum week production for 2009 through 2020 is also presented in Table 2.2. MDD has been relatively consistent from 2009 to 2020, generally between 2.08 and 2.19 million gallons per day (mgd), with a maximum MDD of 2.61 mgd in 2009.

In order to develop future MDD projections, the historical MDD to ADD peaking factor was calculated, as shown in Table 2.2. The MDD to ADD peaking factor fluctuated between 1.98 and 2.19, except in 2009 when it reached 2.43. The 2009 peaking factor was consistent with historical values from 2002 through 2009, as detailed in the previous water system plan, and was therefore maintained as a representation of past peaking factors.

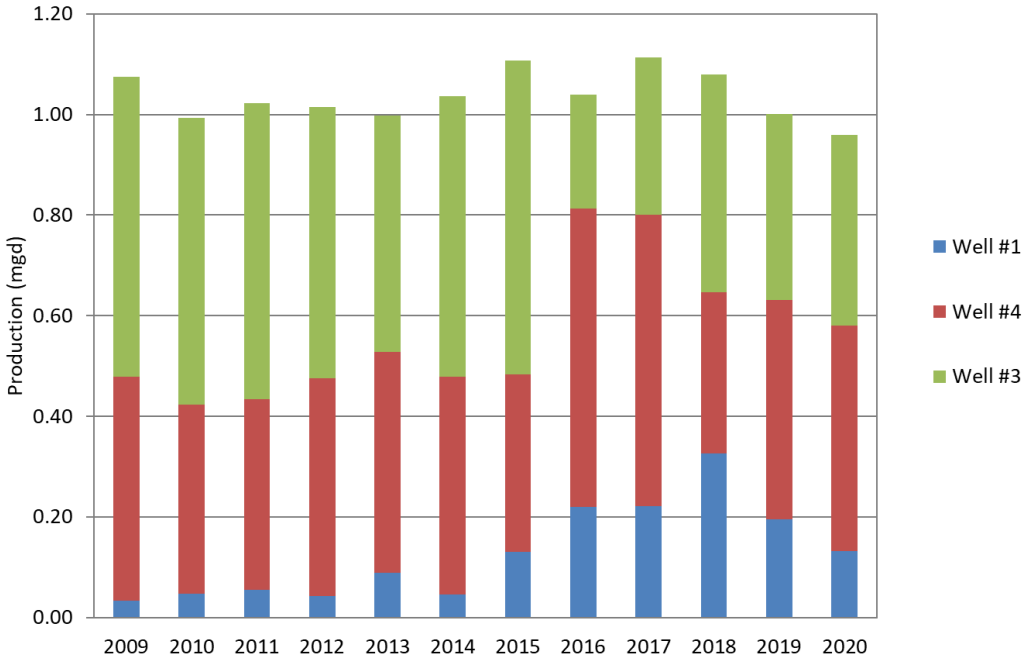


Figure 2.3 Historical Water Production

Table 2.2 Historical Water Use

Year	Annual Water Use (gallons)	Average Day Demand (mgd)	Maximum Day Demand (mgd)	Date of Maximum Day Demand	Max Day/Avg. Day Peaking Factor
2009	392,292,510	1.07	2.61	7/27-7/31	2.43
2010	362,915,402	0.99	2.18	7/26-7/31	2.19
2011	373,165,418	1.02	2.08	9/6-9/12	2.03
2012	370,597,020	1.01	2.15	8/13-8/20	2.12
2013	364,370,398	1.00	2.15	7/29-7/31	2.16
2014	378,539,096	1.04	2.10	8/4-8/11	2.03
2015	404,388,789	1.11	2.19	6/30-7/6	1.98
2016	379,659,201	1.04	2.10	8/15-8/22	2.02
2017	406,622,372	1.11	2.36	7/31-8/7	2.12
2018	394,028,763	1.08	2.07	8/13-8/20	1.92
2019	365,779,458	1.00	2.03	6/17-6/24	2.03
2020	349,535,793	0.96	2.33	7/31-8/3	2.44
Average	**378,491,185**	**1.04**	**2.20**		**2.12**
75th Percentile	**392,726,573**	**1.08**	**2.23**		**2.17**

2.4.2 Historical Water Accounts

For analysis of water consumption, the City divides its customers into nine categories as follows:

1. Residential.
2. Duplex.
3. Fire Line.
4. Governmental.
5. Hotel/Motel.
6. Industrial.
7. Irrigation.
8. Multiunit.
9. Commercial.

The number of accounts in each customer category for the years 2009 through 2020 is summarized in Table 2.3. The City's number of accounts fluctuated during the twelve-year period of record with the height in 2017 with 3,828. Accounts have grown relatively equal between residential and non-residential. However, the non-residential accounts likely represent more water use, as discussed in the next section.

Table 2.3 Historical Number of Connections

Year	Residential	Duplex	Fire Line	Governmental	Hotel/Motel	Industrial	Irrigation	Multiunit	Commercial	Other	Total
2009	2,933	124	54	55	3	2	98	94	355	0	3,718
2010	2,945	125	55	58	3	2	99	94	357	0	3,738
2011	2,947	125	61	58	3	2	99	98	365	0	3,758
2012	2,951	124	62	62	3	2	101	98	360	0	3,763
2013	2,945	127	64	71	3	2	103	99	365	0	3,779
2014	2,948	127	67	72	3	2	103	100	366	0	3,788
2015	2,945	129	68	83	3	2	105	103	357	0	3,795
2016	2,947	128	69	80	3	2	95	105	365	0	3,794
2017	2,964	130	68	82	3	2	109	105	365	0	3,828
2018	2,762	133	69	72	3	2	109	140	402	0	3,692
2019	2,966	137	75	72	3	0	72	105	333	0	3,763
2020	2,924	134	75	72	3	0	61	103	332	0	3,704

Note:
(1) Historical number of connections based on information provided by City Staff.

2.4.3 Historical Water Consumption

Historical annual water consumption data by customer class for the years 2009 through 2020 was obtained from the City's billing records and is presented in Table 2.4 in gallons per day (gpd). During this period, overall water consumption has remained fairly constant with peak consumption in 2009. Historical water consumption by customer class is shown graphically in Figure 2.4. As shown in Figure 2.5, residential accounts make up 78 percent of all customer accounts while only making up 49 percent of total water consumption.

Water use per account has remained relatively steady over the period, as presented in Table 2.5 in gpd and shown in Figure 2.6. Year-to-year fluctuations in water consumption have largely been caused by variations in irrigation and commercial use.

2.4.4 Historical Seasonal Water Consumption

Seasonal water consumption by customer class was evaluated based on available billing records from 2016, which is shown in Figure 2.7. Water consumption peaks in the months of June, July, August, and September due to increased residential use and summer irrigation. Besides residential and irrigation accounts, the governmental customer category also shows a noticeable summer demand increase. The multiunit residential and industrial customer categories experience the least seasonal demand peaking.

2.4.5 Distribution System Leakage

DSL is equal to total production minus total authorized consumption. Total production equals metered source water production. Total authorized water consumption is the volume of water authorized for use by the water system. This includes both authorized metered consumption as well as authorized, tracked, and estimated consumption. Metered consumption is tracked through customer service meters.

All water that is not authorized consumption is considered DSL. DSL includes both apparent and real losses. Apparent losses include water theft, meter inaccuracies, and data collection errors. Real losses are physical losses from the distribution system including reservoir overflows, water main breaks, and water main leaks.

Table 2.6 shows total water production, total authorized consumption, and distribution system leakage for the period of 2009 through 2020. DSL has increased significantly in the last three years, with a maximum of 17.2 percent in 2017. Water loss is considered excessive if it exceeds 10 percent on a three year rolling average, which the City exceeded in 2015 through 2019. In 2020 the three year rolling average met the 10 percent threshold and equated to 7.3 percent. To meet state requirements when the rolling average exceeds 10 percent, the City has developed a Water Loss Control Plan that aims to reduce demand below the 10 percent threshold, which is provided in Chapter 4 of this Plan.

Note, values in Table 2.6 are based on the City's historical water loss reporting. Consumption data reported to DOH differs slightly from values provided in Section 2.4.3. The City switched financial systems in 2015 and was unable to retrieve archival billing data exactly as previously reported to DOH. Data used for this plan represent the City's best efforts to recapture that data, and, in general, the difference between DOH reported consumption and the recreated data was within one percent.

Table 2.4 Consumption by Customer Class (gpd)

Year	Days	Residential	Duplex	Fire Line	Governmental	Hotel/Motel	Industrial	Irrigation	Multiunit	Commercial	Other	Total
2009	365	522,874	25,057	--	62,843	5,694	5,102	120,766	94,387	190,129	--	1,026,852
2010	365	455,627	23,468	--	44,311	5,699	4,642	84,798	87,286	197,569	--	903,400
2011	365	487,677	26,951	--	60,689	6,958	5,201	94,878	86,765	190,728	--	959,848
2012	366	462,650	24,195	--	61,243	6,491	3,839	106,661	86,167	188,084	--	939,330
2013	365	422,421	22,927	--	60,872	5,719	4,145	83,396	81,486	221,728	--	902,693
2014	365	425,599	23,620	--	57,376	5,957	4,770	93,195	82,442	196,034	--	888,994
2015	365	438,624	24,318	--	61,354	6,201	6,668	118,381	86,058	210,002	--	951,605
2016	366	427,677	24,006	--	66,696	7,392	5,649	113,316	77,863	192,271	--	914,870
2017	365	427,575	25,502	-	61,147	7,953	1,019	105,594	80,100	212,875	-	921,765
2018	365	442,214	25,583	-	67,008	7,413	-	125,913	80,806	209,001	-	957,938
2019	365	431,785	24,600	-	66,926	7,164	-	109,368	81,738	216,661	-	938,242
2020	366	449,446	24,389	-	55,872	5,676	-	109,214	85,530	184,871	-	914,997
Average		**451,578**	**24,662**	**-**	**60,798**	**6,555**	**3,442**	**105,919**	**84,606**	**201,728**	**-**	**939,287**
75th Percentile		**460,493**	**25,296**	**-**	**64,185**	**7,227**	**5,162**	**115,362**	**86,903**	**211,791**	**-**	**957,973**

Table 2.5 Water Consumption per Account by Class (gpd)

Year	Residential	Duplex	Fire Line	Governmental	Hotel/Motel	Industrial	Irrigation	Multiunit	Commercial	Other	Total
2009	178	202	0	1,143	1,898	2,551	1,232	1,004	536	--	324
2010	155	188	0	764	1,900	2,321	857	929	553	--	284
2011	165	216	0	1,046	2,319	2,601	958	885	523	--	301
2012	157	195	0	988	2,164	1,920	1,056	879	522	--	293
2013	143	181	0	857	1,906	2,072	810	823	607	--	281
2014	144	186	0	797	1,986	2,385	905	824	536	--	276
2015	145	188	0	834	2,464	2,824	1,193	742	527	--	295
2016	155	190	0	743	2,088	2,501	1,073	812	543	--	284
2017	144	196	0	746	2,651	509	969	763	583	--	241
2018	160	192	0	931	2,471	0	1,155	577	520	--	259
2019	146	180	0	930	2,388	--	1,519	778	651	--	249
2020	154	182	0	776	1,892	--	1,790	830	557	--	247
Average	**154**	**192**	**0**	**883**	**2,185**	**2,065**	**1,136**	**826**	**561**		**250**
75th Percentile	**158**	**196**	**0**	**947**	**2,409**	**2,606**	**1,211**	**887**	**585**	**NA**	**254**

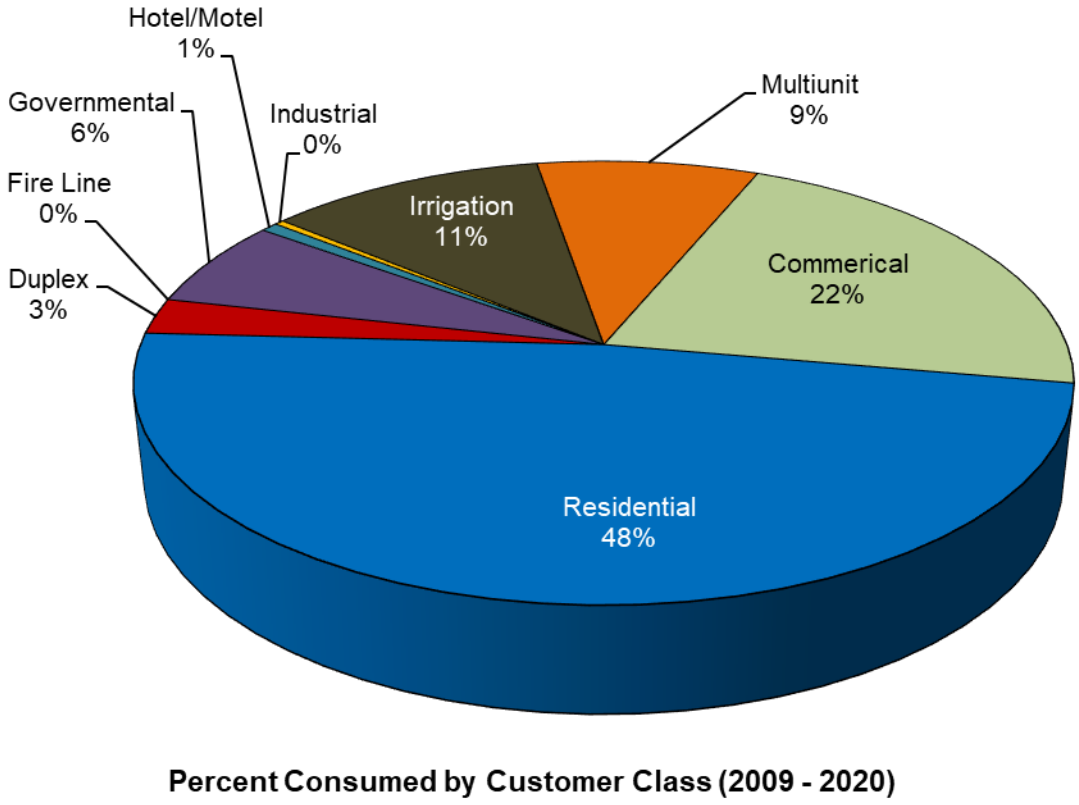


Figure 2.4 Historical Water Consumption by Customer Class

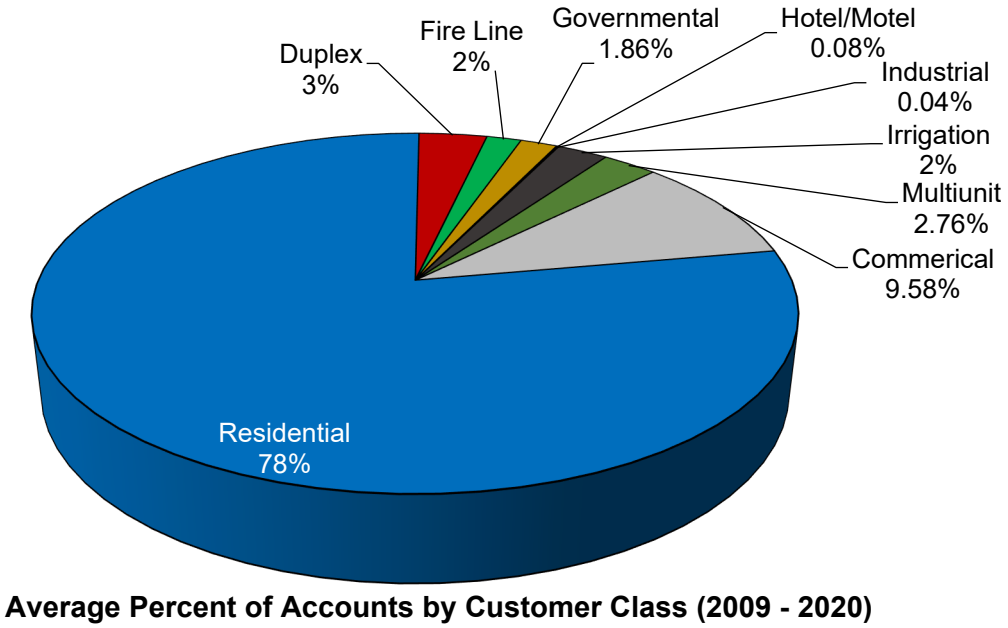


Figure 2.5 Percent of Accounts by Customer Class

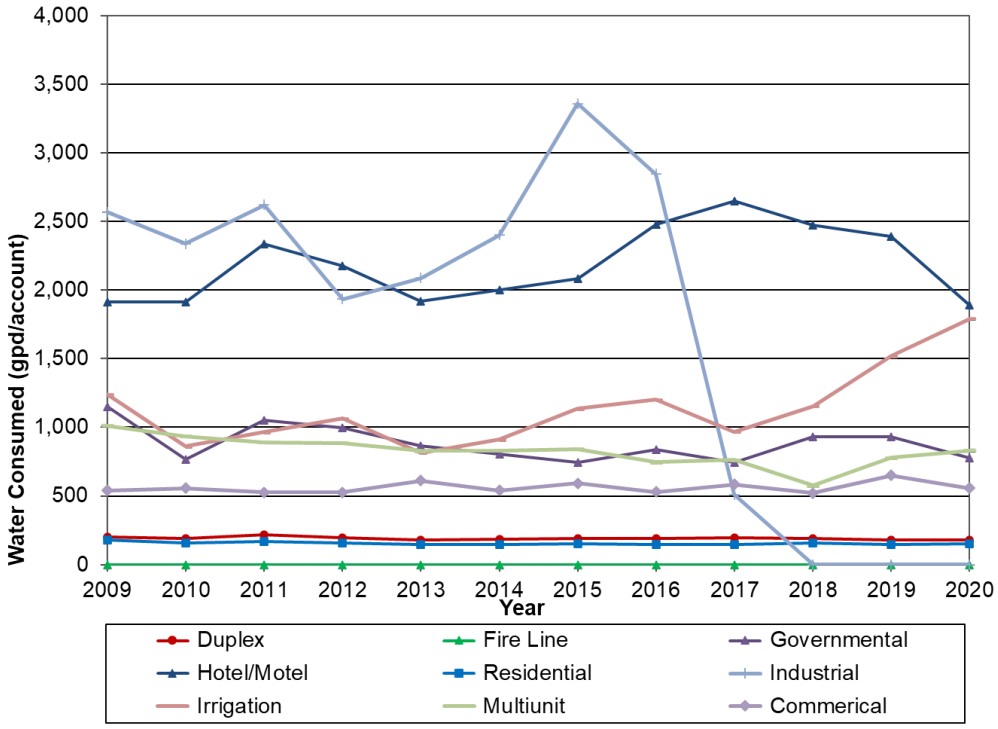


Figure 2.6 2016 Historical Water Consumed per Account

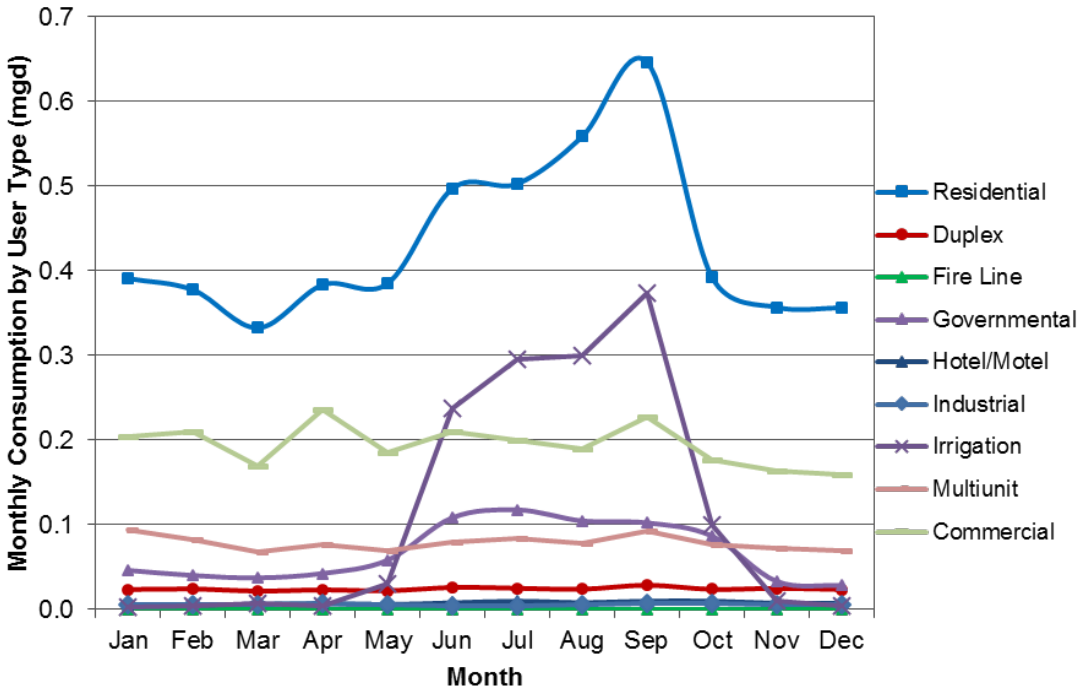


Figure 2.7 Seasonal Consumption by Customer Class

Table 2.6 Historical Distribution System Leakage

Year	Water Production (mgd)	Authorized Consumption (mgd)	DSL (mgd)	DSL (percent of Water Production)	3-year Rolling Average (percent)
2009	1.07	1.04	0.039	3.6	7.5
2010	0.99	0.93	0.067	6.7	5.4
2011	1.02	0.95	0.075	7.4	5.9
2012	1.01	0.95	0.069	6.8	7.0
2013	1.00	0.91	0.088	8.8	7.7
2014	1.04	0.89	0.142	13.7	9.8
2015	1.11	0.96	0.154	13.8	12.1
2016	1.04	0.93	0.111	10.6	12.7
2017	1.11	0.92	0.192	17.2	13.9
2018	1.08	0.96	0.121	11.2	13.0
2019	1.00	0.94	0.063	6.3	11.6
2020	0.96	0.92	0.042	4.4	7.3
Average	**1.04**	**0.94**	**0.097**	**9.2**	**NA**

2.4.6 Equivalent Residential Units

The Washington Administrative Code (WAC) 246-290-010 defines the concept of ERU in order to express customer water use as an equivalent number of single family residential customers. An ERU is the amount of water consumed by a typical full time single family residence.

Water use per ERU is calculated by dividing the total volume of water utilized in the residential customer class by the total number of active residential accounts. The volume of water used by other customer classes is divided by the residential water use to determine the number of ERUs per account for other customer classes.

The average daily consumption per account for each customer class for years 2009 through 2020 is shown in Table 2.5, presented above. The residential consumption has been relatively steady over the time period after dropping from its high of 178 gpd in 2009. For developing demand projections, the City selected to define its ERU value as the 75th percentile of the historical data, which is 158 gallons per day per ERU (gpd/ERU). The 75th percentile is considered appropriate for sizing infrastructure improvements.

Historical ERUs per account for each consumption class was calculated based on the selected ERU value. These varied from 1.3 ERUs per account for duplex customers to 15.9 ERUs per industrial account, as shown in Table 2.7.

Table 2.7 Historical ERUs

Account Type	ERUs
Residential	1.0
Duplex	1.3
Fire Line	0
Governmental	6.3
Hotel/Motel	15.7
Industrial	15.9
Irrigation	7.7
Multiunit	5.7
Commercial	4.0

Note:
(1) ERUs shown are 75th percentile of historical data from 2009 through 2020.

2.5 Projected Water Demand

Projecting future water demand is one of the key elements of the water system planning process. Identification of system improvements such as supply, pumping, storage, and piping requirements are all related to demand projections. This section summarizes the ADD and MDD projections that were developed for the City's water system based on historical water demand trends and future growth assumptions. The demand projections are presented as a range in demands that may be experienced in the future. Low, medium, and high water demand projection scenarios were developed by adjusting various demand projection parameters. The medium demand projection scenario is used to identify improvements described in Chapter 4. The low and high projection scenarios provide a sense of the extent of uncertainty in the demand forecasts.

2.5.1 Demand Projection Parameters

Future water use was projected using parameters developed from historical data and assumptions for future growth. Several parameters were used to project future ADD and MDD. The parameters, which are listed in Table 2.8, include the ERU value, future customer water use assumptions, MDD to ADD peaking factor, and DSL percentage. In addition, the growth rates presented in Table 2.1 are used to predict future residential and non-residential accounts. For each demand projection parameter, low, medium, and high values were established corresponding to the respective demand scenario.

The values selected for each parameter in developing the range of demand projections are summarized in Table 2.8 and discussed below.

Table 2.8 Demand Projection Parameters

Parameter	Low Scenario	Medium Scenario	High Scenario
ERU Value (gpd/ERU)	158	158	158
Future Customer Water Use (percent of existing water use)	95	95	100
MDD/ADD Peaking Factor	2.08	2.17	2.27
Percent DSL	10.0	10.0	10.0

2.5.1.1 ERU Value

For all three demand projection scenarios, an ERU value of 158 gpd was selected by the City to be conservative, which corresponds to the 75th percentile of historical data as previously described.

When performing the limiting capacity analysis, the ERU value referenced above is known as the ADD ERU value. The MDD ERU value, which is also used in the limiting capacity analysis, is the ADD ERU value multiplied by the MDD/ADD peaking factor for the medium scenario. The MDD ERU value is 345 gpd.

2.5.1.2 Future Customer Water Use

When projecting future ERUs for each customer type, except Industrial, were assumed to use five percent less water than existing customers. This reduction represents passive water savings gained in new developments from low-flow fixtures, water efficient appliances, smaller lot sizes, and other factors. It is not intended to represent savings from the City's active Water Use Efficiency program.

2.5.1.3 MDD to ADD Peaking Factor

The MDD to ADD peaking factor of 2.08, used for the low demand scenario, is the 50th percentile of the historical peaking factors presented in Table 2.2. The City selected a peaking factor of 2.17 for the medium demand projection, equal to the 75th percentile of historical peaking factors. For the high demand projection, a peaking factor 2.27 was selected, equal to the 90th percentile of historical peaking factors, and is greater than all recent years except 2009.

2.5.1.4 Distribution System Leakage

For all demand projection scenarios, the City selected a DSL value of 10 percent, the DOH maximum acceptable DSL level value. As previously mentioned, the City has developed a water loss control plan to achieve or exceed this water loss reduction goal.

2.5.1.5 Large Users Demand

The City provides water service to Sierra Pacific Industries Sawmill (SPI). The projected ERUs, ADD, and MDD for SPI in the planning year 2041 are as follows:

- ERUs: 322.
- ADD: 50,813 gpd.
- MDD: 50,813 gpd.

The SPI demand projections were kept the same across all three projected demand scenarios.

In previous Plans, the Port of Shelton's John's Prairie Industrial Park was considered a large user. John's Prairie is still an existing user but is no longer considered a large user (no growth is estimated for the planning period). The City also provides water service to the Washington State Patrol Academy.

2.5.1.6 Annexation Demands

The City plans to serve two proposed annexation expansions to the UGA: Shelton Hills and GH. Projected 2041 demands and equivalent ERUs for the two UGA expansion areas are presented in Table 2.9.

Shelton Hills demands are based on plans for a large industrial area and moderate commercial area in Shelton Hills, represented as "annex industrial" and "annex commercial" customer classes in the demand projection. GH is anticipated to be mainly single family residential development, with a small commercial component, represented as "annex residential" and "annex commercial" customer classes in the demand projection. Like the large user future demands, annexation demands remained the same across all three demand projection scenarios. Service to Shelton Hills was projected to begin in 2024 and scale up to the projected ERUs by the end of 2041. Service to GH was projected to begin in 2034, with ERUs scaling up to the projected value by the end of 2044.

Table 2.9 Annexation 2041 Water Demands

Description	ERUs	ADD (gpd)	MDD (gpd)
Shelton Hills	1,439	263,206	597,476
Goldsborough Heights	286	15,350	34,845

2.5.2 Account Projections

Using the demographic growth rates documented in Table 2.10, the number of existing accounts in each customer class were grown to project future number of water accounts. Residential, Duplex, and Multiunit accounts were grown by household growth rates. Governmental, Hotel/Motel, Industrial, Irrigation, and Commercial accounts were grown by employee growth rates.

Annual growth rates presented in Table 2.3 were used to project future accounts for all three demand projection scenarios. The projected number of future accounts was then used to develop ERU and demand projections as described below. The account projections by customer type are presented in Table 2.10.

Table 2.10 Account Projections by Customer Type

	2021	2027	2031	2041
Residential	3,013	3,549	3,906	4,799
Duplex	138	163	179	220
Fire Line	80	111	132	184
Governmental	74	87	96	118
Hotel/Motel	3	4	4	5
Industrial	0	0	0	0

	2021	2027	2031	2041
Irrigation	65	91	108	150
Multiunit	106	125	138	169
Commercial	355	493	586	816
Large User(1)	n/a	n/a	n/a	n/a
TOTAL	**3,835**	**4,623**	**5,148**	**6,461**

Note:
(1) Large Users are projected independently of other Customer Types.

2.5.3 ERU Projections

The ERU projections provide the basis for the ADD and MDD projections. The projected number of ERUs for the City was calculated by multiplying the projected number of accounts by the number of ERUs per account presented in Table 2.11. For the low and medium demand projection scenarios, future ERUs were projected to be 95 percent of existing ERUs for all account types, except the large users and annexation areas, as presented in Table 2.11. Projected ERUs for the large users and annexation areas were added as described previously.

For all three demand projection scenarios, the total ERUs are projected to almost double by the end of the planning period. The City's total number of ERUs is projected to grow from approximately 6,425 in 2021 to 12,010 by 2041 in the medium scenario, as shown in Table 2.11. By 2041, demands from Large Users and annexations are projected to make up nearly 10 percent of the City's total number of ERUs.

Table 2.11 ERU Projections for Low, Medium, High Demand Scenarios

Year	2021	2027	2031	2041
Low Demand (gpd)	6,425	8,115	9,349	12,242
Medium Demand (gpd)	6,425	8,115	9,349	12,242
High Demand (gpd)	6,409	8,146	9,411	12,382

Note:
(1) The difference between the low demand scenario and medium demand scenario is the MDD/ADD peaking factor so the ERU projections are the same for both scenarios.

2.5.4 Projected ADD and MDD

Average day demand projections for each customer class were calculated by converting consumption in ERUs to gallons per day using the ERU values presented in Table 2.11. Water losses (10 percent DSL for all scenarios) were added to establish total ADD projections.

MDD projections were established by multiplying ADD projections by the selected ADD to MDD peaking factor for each demand projection scenario, as presented in Table 2.10. ADD and MDD projections for the low, medium, and high demand projection scenarios are presented in Table 2.12 and Table 2.13, respectively. The ADD in 2016 was approximately 1.0 mgd, and the 2041 ADD is projected to be approximately 2.11 mgd for the low and medium scenarios. The projected 2041 MDD ranges between 4.33 mgd and 4.77 mgd, with a medium projection of 4.52 mgd. Future demand projections for the entire planning period are presented in Figure 2.8.

The City demand is anticipated to increase by almost 200 percent over the 20 year period, which is substantial. The City is the largest municipality in Mason County, supports large regional

customers, and has extensive buildable land to support this growth. However, additional water system infrastructure will be required to serve the growing system, as discussed in subsequent chapters.

Table 2.12 Projected ADDs for Low, Medium, High Demand Scenarios

Year	2021	2027	2031	2041
Low Demand (mgd)	1.13	1.42	1.64	2.15
Medium Demand (mgd)	1.13	1.42	1.64	2.15
High Demand (mgd)	1.13	1.43	1.65	2.17

Note:
(1) The difference between the low demand scenario and medium demand scenario is the MDD/ADD peaking factor so the ADD projections are the same for both scenarios.

Table 2.13 Projected MDDs for Low, Medium, High Demand Scenarios

Year	2021	2027	2031	2041
Low Demand (mgd)	2.29	2.91	3.36	4.42
Medium Demand (mgd)	2.39	3.03	3.50	4.60
High Demand (mgd)	2.49	3.18	3.68	4.86

2.5.5 Projected Demand by Pressure Zone

A breakdown of existing demands by pressure zone is shown in Figure 2.9. Ninety-eight percent of existing demands are in three of the five pressure zones. To predict future demands by pressure zone, future land use was used to attribute a percentage of the total growth of each customer class to each pressure zone. Future demand by pressure zone for 2041 is shown in Figure 2.10. This breakdown of future demands was used when performing a capacity evaluation of the system.

With the expansion of the UGA, and growth within the UGA, the Upper Mountain View pressure zone is projected to grow significantly. The growth in average day demand by pressure zone is shown in Table 2.14. Growth within the Upper Mountain View zone accounts for 40 percent of the total increase in ADD between 2021 and 2041.

Table 2.14 Growth in ADD by Pressure Zone

Pressure Zone	Existing (mgd)	Future (mgd)	Incremental Growth (2020 - 2041) (mgd)
Angleside	0.28	0.42	0.13
Mountain View	0.48	0.84	0.35
Capital Hill	0.03	0.05	0.02
High School	0.30	0.39	0.09
Upper Mountain View	0.00	0.46	0.46

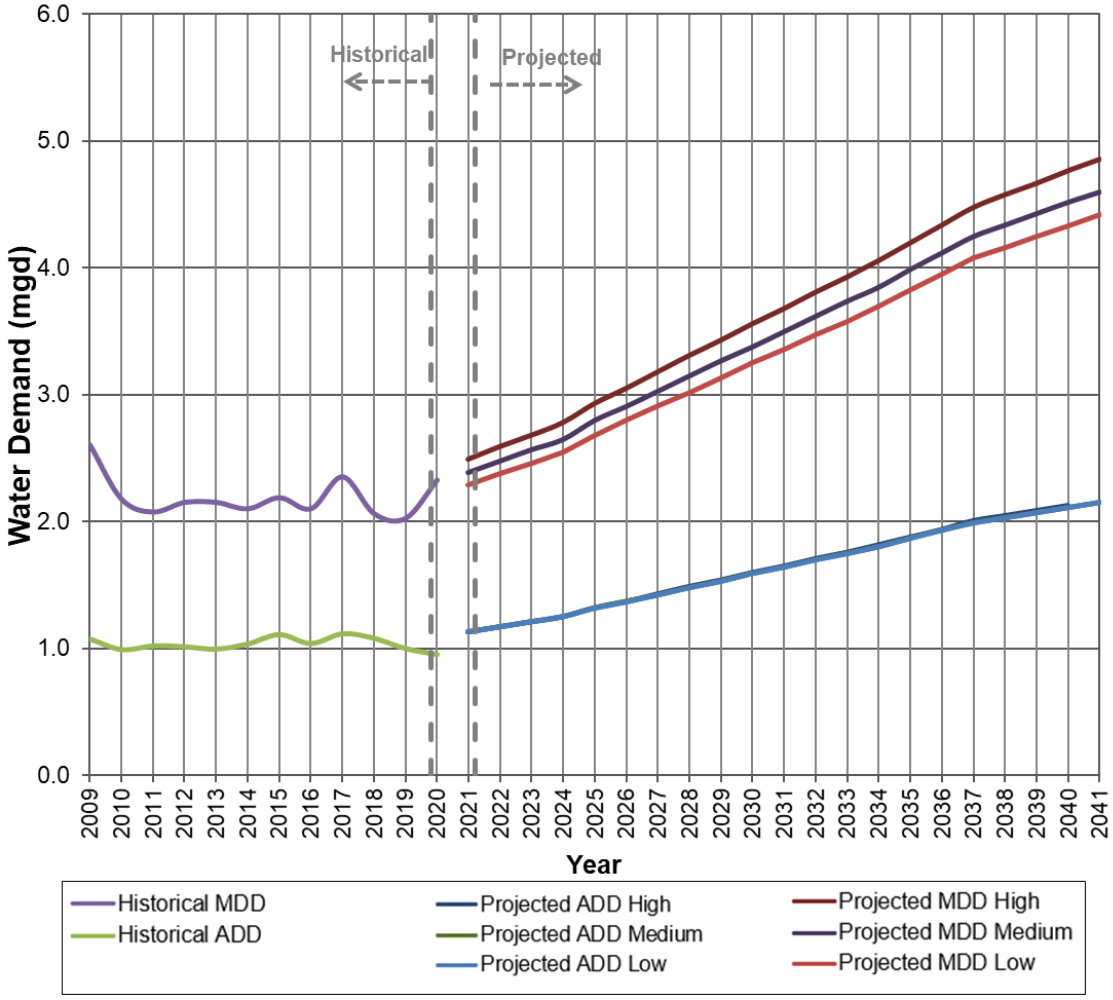


Figure 2.8 Historical and Projected Average and Maximum Day Demands

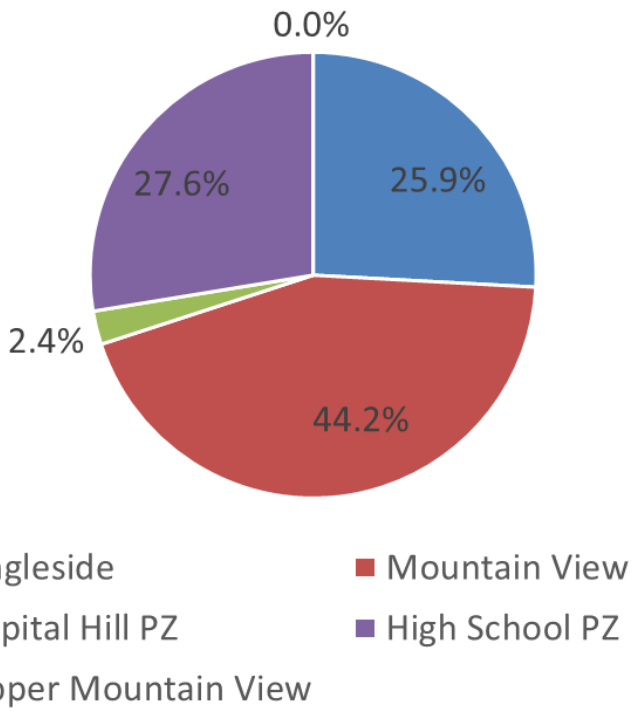


Figure 2.9 Existing Estimated Demand by Pressure Zone (2020)

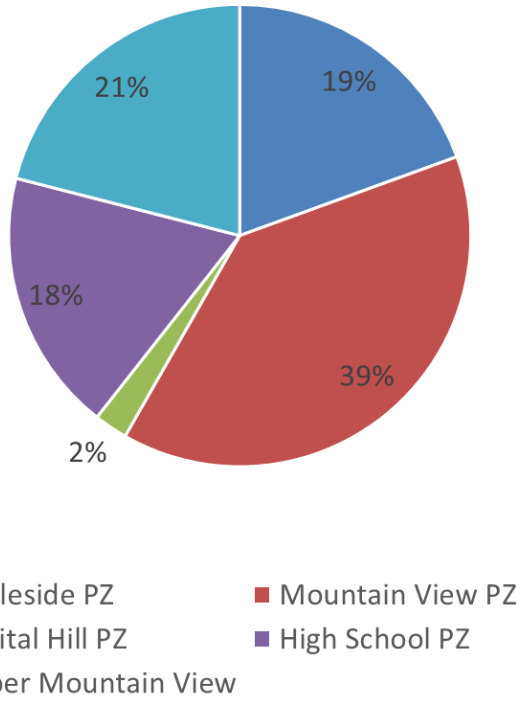


Figure 2.10 Estimated Future Demand by Pressure Zone (2041)

Chapter 3

DESCRIPTION OF THE WATER SYSTEM

3.1 Introduction

The City of Shelton's (City) water system currently serves a population of approximately 13,800 people. As of 2020, it had approximately 3,700 service connections. Of these, 2,920 were single-family residential connections, while the remaining 780 connections were multi-family and non-residential (commercial, industrial, etc.) services.

The existing service area is primarily within city limits, but some areas outside of them are also served.

3.2 Existing Water System

3.2.1 Location

The City is located in Mason County, Washington, and bordered to the east by Oakland Bay, which is a portion of the southeast section of Puget Sound. Total topography ranges from sea level to 350 feet (ft) with the water service area sloping toward Puget Sound.

The primary freshwater stream is Goldsborough Creek, flowing into Oakland Bay from downtown. In addition, several other smaller creeks flow from Shelton Springs into Oakland Bay.

Figure 3.1 shows the City's boundary and urban growth area (UGA), as well as its surrounding region.

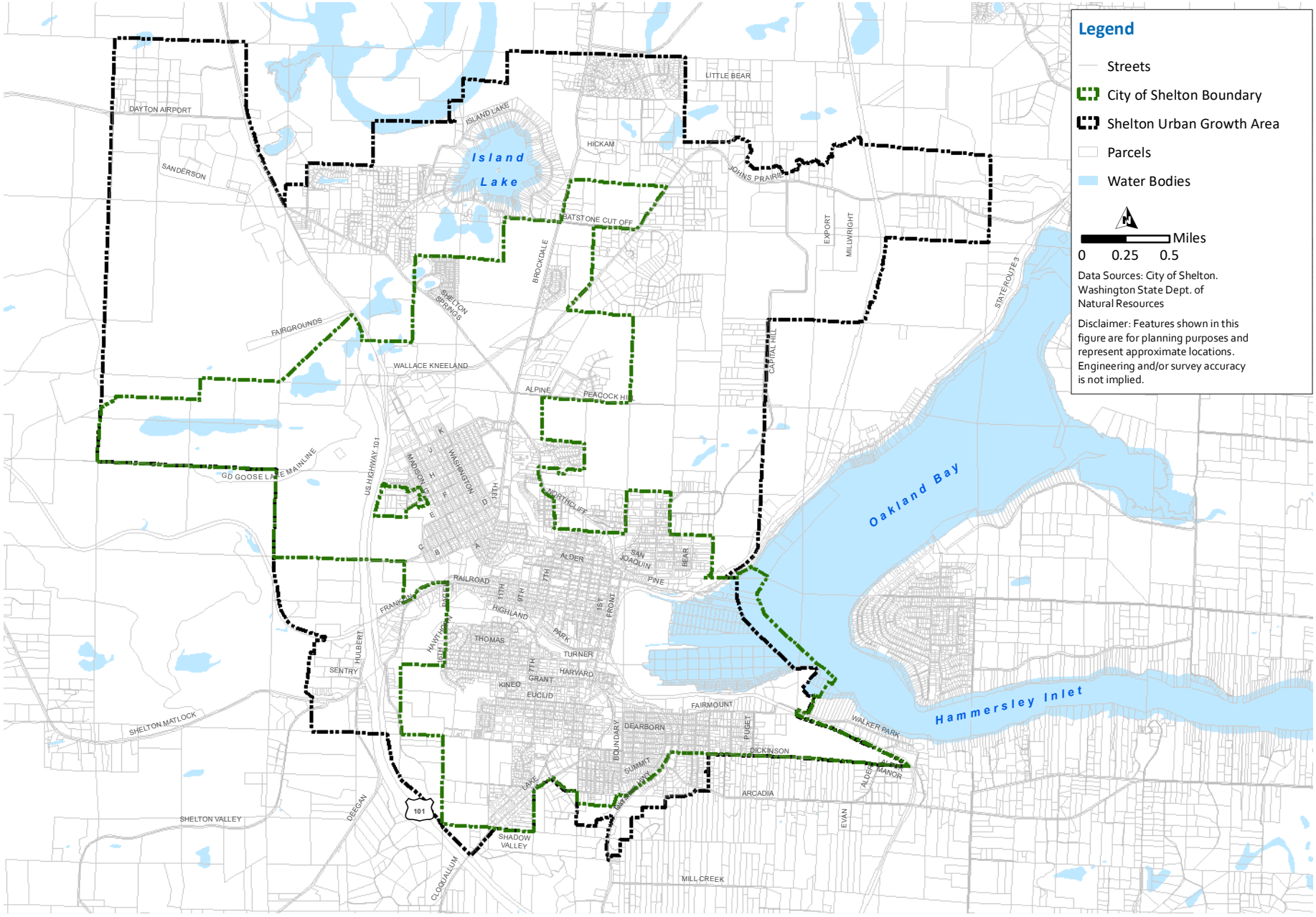


Figure 3.1 Shelton Area Map

3.2.2 System Background

The City's water distribution system consists of nearly 66 miles of water main, three wells, five reservoirs, four BPSs, and pressure-reducing valves (PRVs). The City is currently divided into five distinct pressure zones: Angleside, Capitol Hill, High School, Mountain View, and Upper Mountain View. Historically, Shelton Springs served as the main source of supply for the City; however, it is no longer in use.

3.2.2.1 Water System History

The City was incorporated in 1890. Over the past 130 years, it has evolved into both a residential community and industrial hub for Mason County with several government and retail centers. The current (2018) population is approximately 10,140 or 16 percent of the total population of Mason County[1].

The City currently operates three wells that supply water to its water system customers. Historically, the City supplied its customers with water from Shelton Springs, which was developed in the late 1930s and early 1940s. Shelton Springs was supplemented with water from three wells. However, due to a directive issued by the Washington State Department of Health (DOH) to disinfect Shelton Springs, this source was inactivated on April 21, 2000. According to weekly water quality monitoring data collected for a period of one year, the DOH had determined that Shelton Springs was hydraulically connected to surface water. Results from microscopic particulate analyses showed that, although the source was not under the direct influence of surface water, it was subject to seasonal variation and low to moderate biological activity.

In 2000, the City, along with the Department of Corrections (DOC), the Washington State Patrol (WSP), the Port of Shelton (Port), and Mason County began cooperatively planning a regional water and wastewater system. In 2006, these planning efforts led to the negotiation of utility service agreements between the City, DOC, and WSP, under which the City agreed to a) provide water to the WSP Academy (Academy) (located at the western edge of the City's UGA and b) reserve capacity in the water system to serve the DOC in the future. Appendix 3A presents copies of these agreements, which will be executed once the configuration of the regional water system is finalized (as documented in this Plan) and costs of service are determined.

In consideration of the City's commitments, the DOC, the WSP, Port, and Mason County agreed to contribute to the cost of new water system facilities in an amount proportional to the benefit those public agencies would receive.

3.2.3 Land Use and Zoning

Land use designations and regulation provide important information needed to project future water demands.

3.2.3.1 Existing Land Use

Figure 3.2 shows the existing land use for parcels within the City's UGA. For the purpose of this Plan, the parcels were consolidated into the land use categories shown in Figure 3.2.

[1] State of Washington Office of Financial Management (OFM) Web site: https://ofm.wa.gov/sites/default/files/public/dataresearch/pop/april1/ofm_april1_population_final.pdf

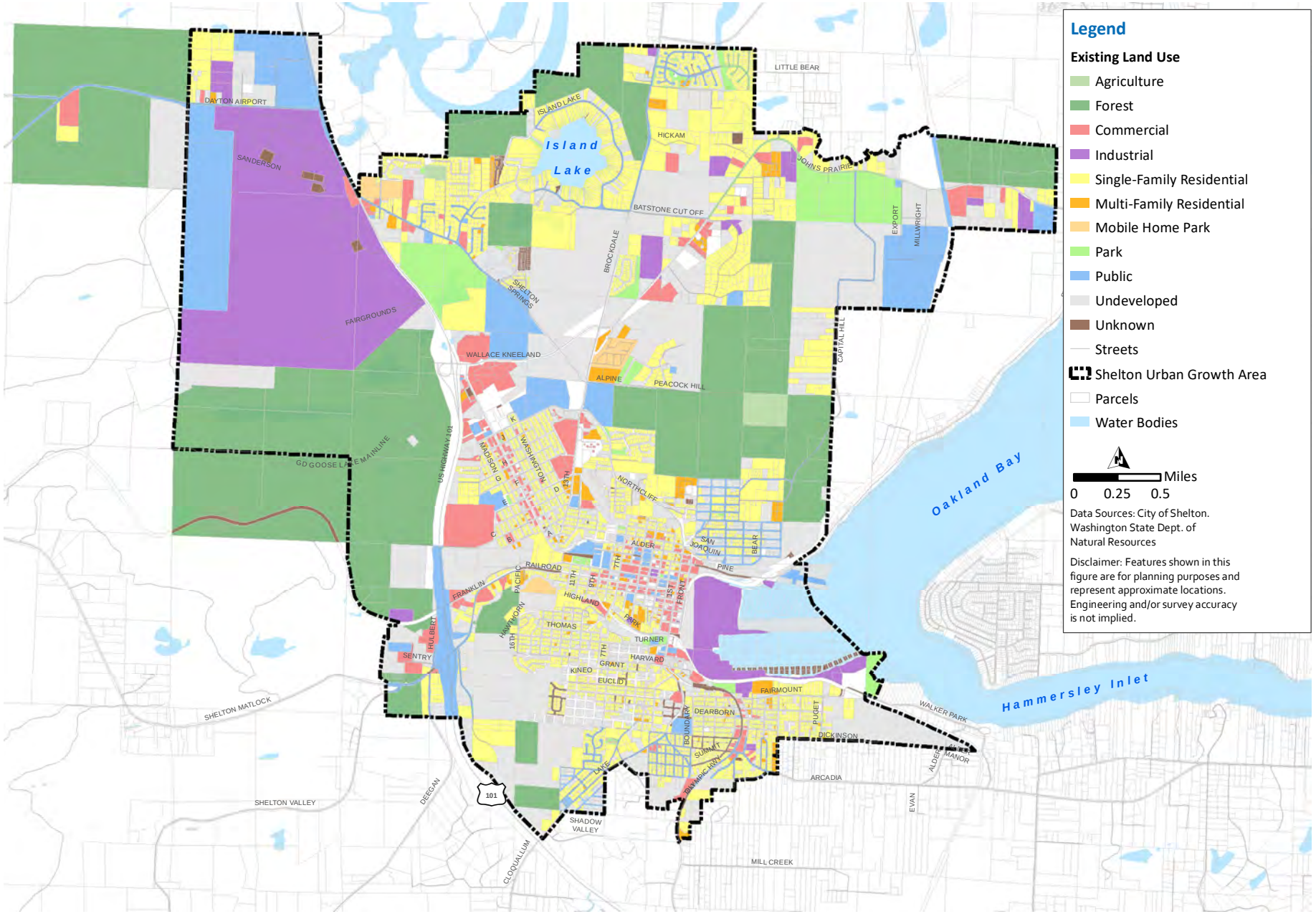


Figure 3.2 Shelton Urban Growth Area Existing Land Use by Parcel

3.2.3.2 Future Zoning

The future land use designations represent the maximum build-out foreseeable by the year 2040. Figure 3.3 shows the future land use designations within the City's UGA.

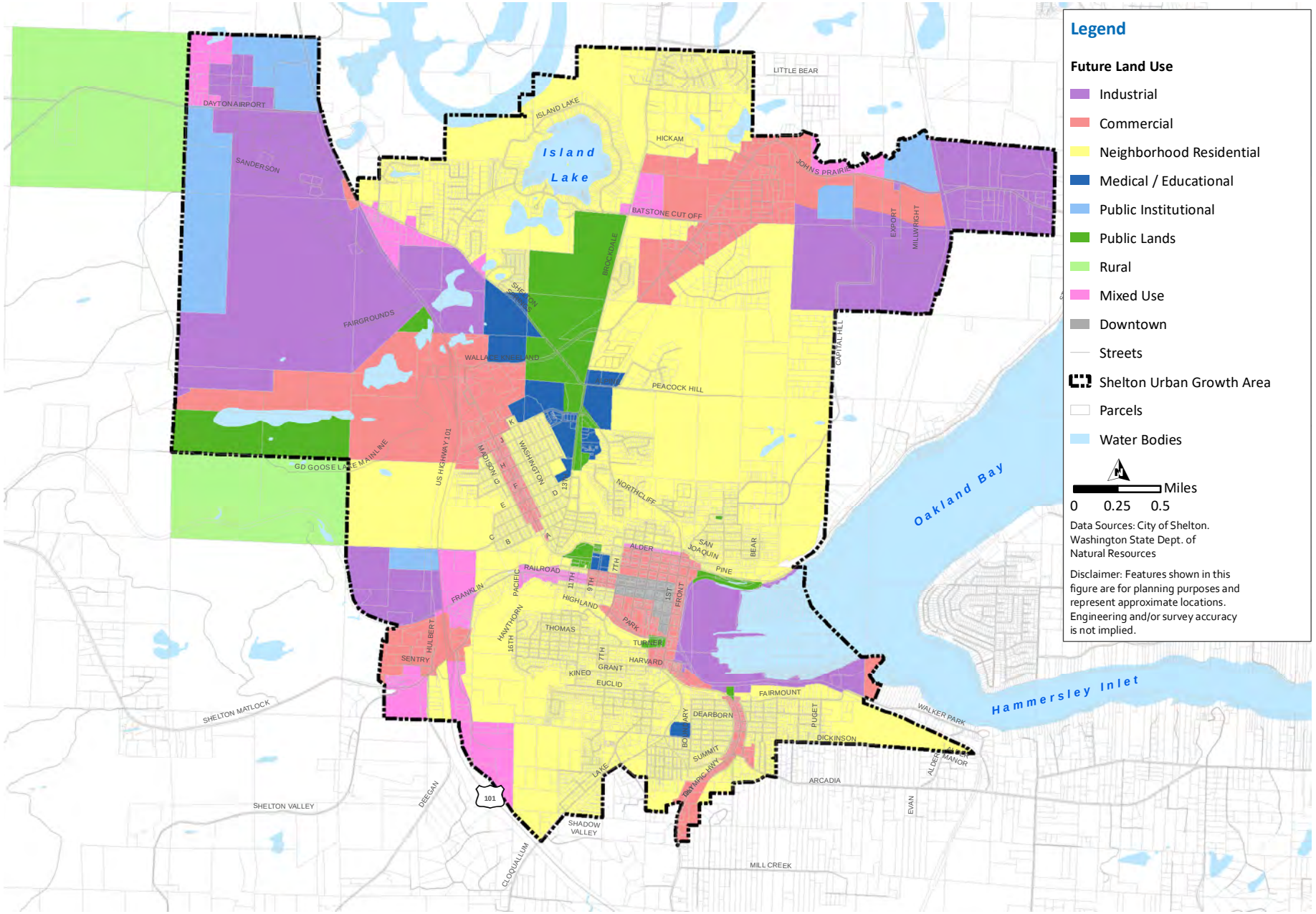


Figure 3.3 Shelton Urban Growth Area Future Land Use

3.3 Neighboring/Adjacent Purveyors

The water purveyors adjacent to the City's systems include the Port, Washington Corrections Center (WCC), the Academy, and multiple small Group A water supply systems. Figure 3.4 shows the locations of these water systems. The City will provide wholesale supply to these purveyors with an Interlocal agreements. Additionally, the City's policy is to accept Group A systems seeking to merge with the City that meet its requirements.

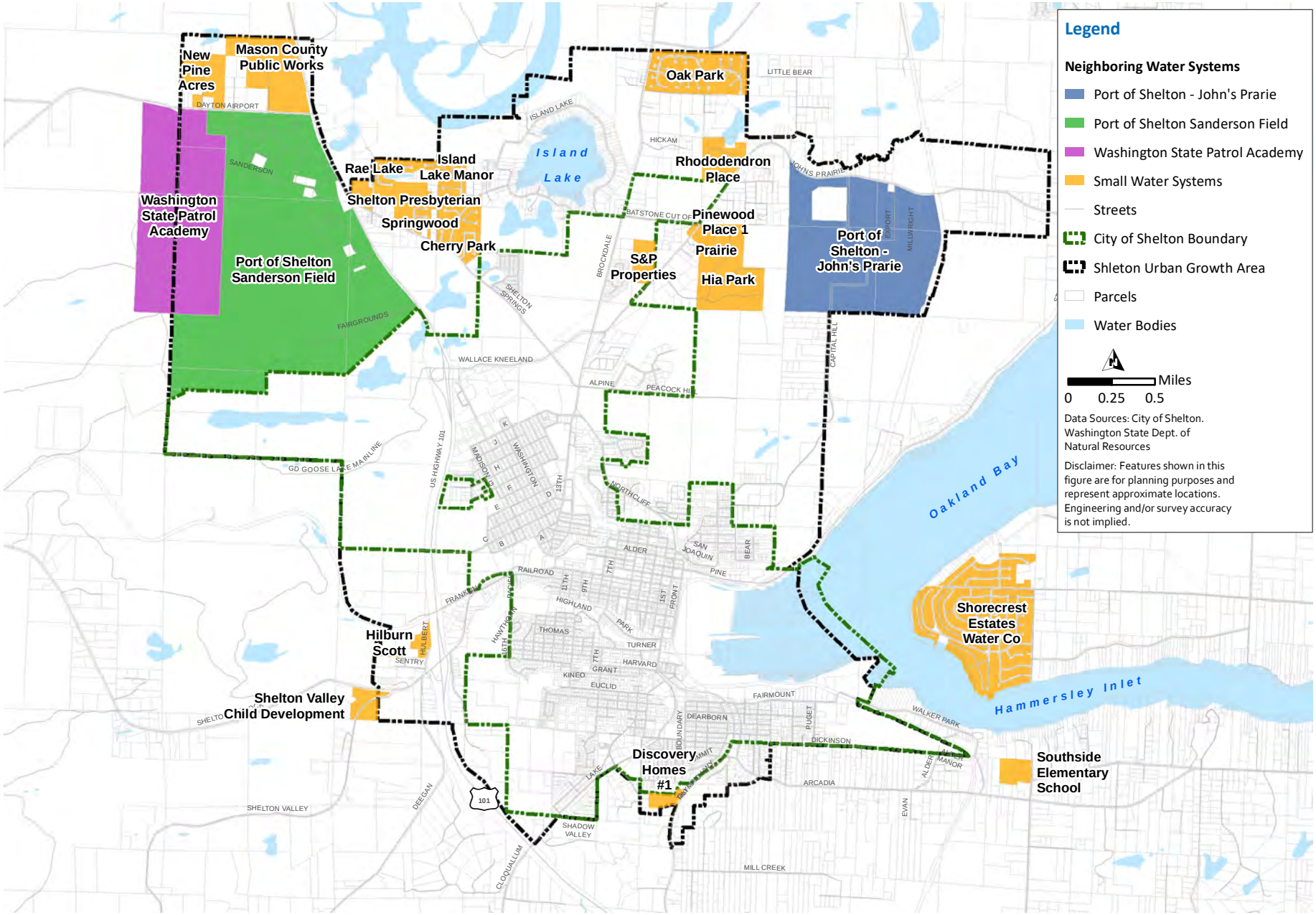


Figure 3.4 Neighboring Water Systems

3.3.1 Port of Shelton

The Port owns and operates two water systems within the City's UGA: the Sanderson Field Industrial Park (Sanderson Field) and John's Prairie Industrial Park (John's Prairie).

3.3.1.1 Sanderson Field Industrial Park

Sanderson Field has 37 service connections serving a non-residential population of approximately 1,580 (reference: DOH Sentry Water System Database) and is supplied by two wells. Water from these wells is pumped to two storage facilities, which have a combined capacity of 675,000 gallons (gals). The Port has indicated that Sanderson Field has sufficient supply and is not planning on purchasing potable water from the City in the next 20 years.

3.3.1.2 John's Prairie Industrial Park

John's Prairie has approximately 17 service connections (reference: DOH Sentry Water System Database) and is supplied by two wells with a total capacity of 325 gallons per minute (gpm). The wells are controlled by the water elevation in a 600,000-gal standpipe reservoir constructed in 1976. Current fire flow needs for John's Prairie are met by this reservoir. The Industrial park obtains water from two untreated wells and wholesale supply from the City. In previous Plans, the Port of Shelton's John's Prairie Industrial Park was considered a large user. John's Prairie is still an existing user, but is no longer considered a large user (no growth is estimated for the planning period).

3.3.2 Washington Corrections Center

The WCC water system serves a population of approximately 1,800 inmates and 430 staff. The WCC is supplied by five wells, and all water pumped from these wells is conveyed to a treatment building, where soda ash is added for corrosion control and sodium hypochlorite is added for disinfection. Sodium hypochlorite is generated on site. Treated water is stored in two elevated-steel reservoirs: a 300,000-gal reservoir constructed between 1962 and 1963 and a 500,000-gal reservoir constructed in 2003.

In the past, the City and WCC has discussed the City providing wholesale supplies. However, with recent water conservation efforts, the WCC no longer anticipates needing wholesale supplies in the next 20 years.

3.3.3 Washington State Patrol Academy

The Academy receives wholesale supply from the City through the 440 pressure zone (PZ). The WSP water system has 18 non-residential service connections and serves a non-residential population of approximately 144 people, on average. Average day demand (ADD) at the Academy is approximately 20,000 gallons per day (gpd), while the water demand for maximum monthly usage is approximately 37,000 gpd. Additionally, the Academy uses reclaimed water from the City in its training activities.

It has limited water rights, which are issued for fire protection and emergency domestic supply. The Academy relies on the Port's water system in the event that a well shuts down or has low pressure and for fire flow.

3.3.4 Neighboring Group A and Group B Water Systems

The DOH's water rights database, Sentry Internet, lists a total of 18 active Group A systems within or adjacent to the City's UGA, whose locations are identified in Figure 3.4.

3.4 Inventory of Existing Facilities

The City serves its customers through well supplies, storage, and its distribution system. General water system facility data is summarized on the DOH's Water Facilities Inventory (WFI) form. Appendix 3B provides copies of the 2018 WFIs.

3.5 Water System Updates Since the 2010 Water Plan

Since the 2010 Plan the City has created the Upper Mountain View PZ to provide service to portions of the City and its UGA. To establish the pressure zone, the City upgraded Well 3 to supply the pressure zone, installed a UMPZ distribution main to Academy, and constructed a 410,000-gal standpipe reservoir to serve the Upper Mountain View PZ. Piping and valves were installed to isolate the Upper Mountain View and Mountain View PZs.

3.5.1 Distribution System Overview

The City's water distribution system is divided into five distinct pressure zones at four different hydraulic grade lines (HGLs):

- Angleside.
- Capitol Hill.
- High School.
- Mountain View.
- Upper Mountain View.

Since the City's 2010 Water System Plan (2010 Plan), the part of the Mountain View PZ was divided into a new pressure zone, the Upper Mountain View PZ.

Two PRVs, one near the High School reservoir (constructed in 2008) and one located downtown near Loop Field (constructed in 2005), allow the Angleside and Mountain View PZs to serve the High School PZ. The Angleside and Mountain View PZs are very close to the same HGL. The pressure zones can function as a single pressure zone if a manual isolation valve that separates the two pressure zones. Table 3.1 summarizes the pressure HGL and service elevations.

Table 3.1 Pressure Zone Summary

Pressure Zone	HGL (ft)	Maximum Service Elevation (ft)	Minimum Service Elevation (ft)
High School	177	110	20
Capitol Hill	334	260	94
Angleside	374	300	58
Mountain View	373	277	158
Upper Mountain View	440	350	201

Figure 3.5 shows the City's existing water system, including the new pressure zone and all water system facilities. The hydraulic profile shown in Figure 3.6 presents details of how the various components of the City's system work together to provide water service to its customers.

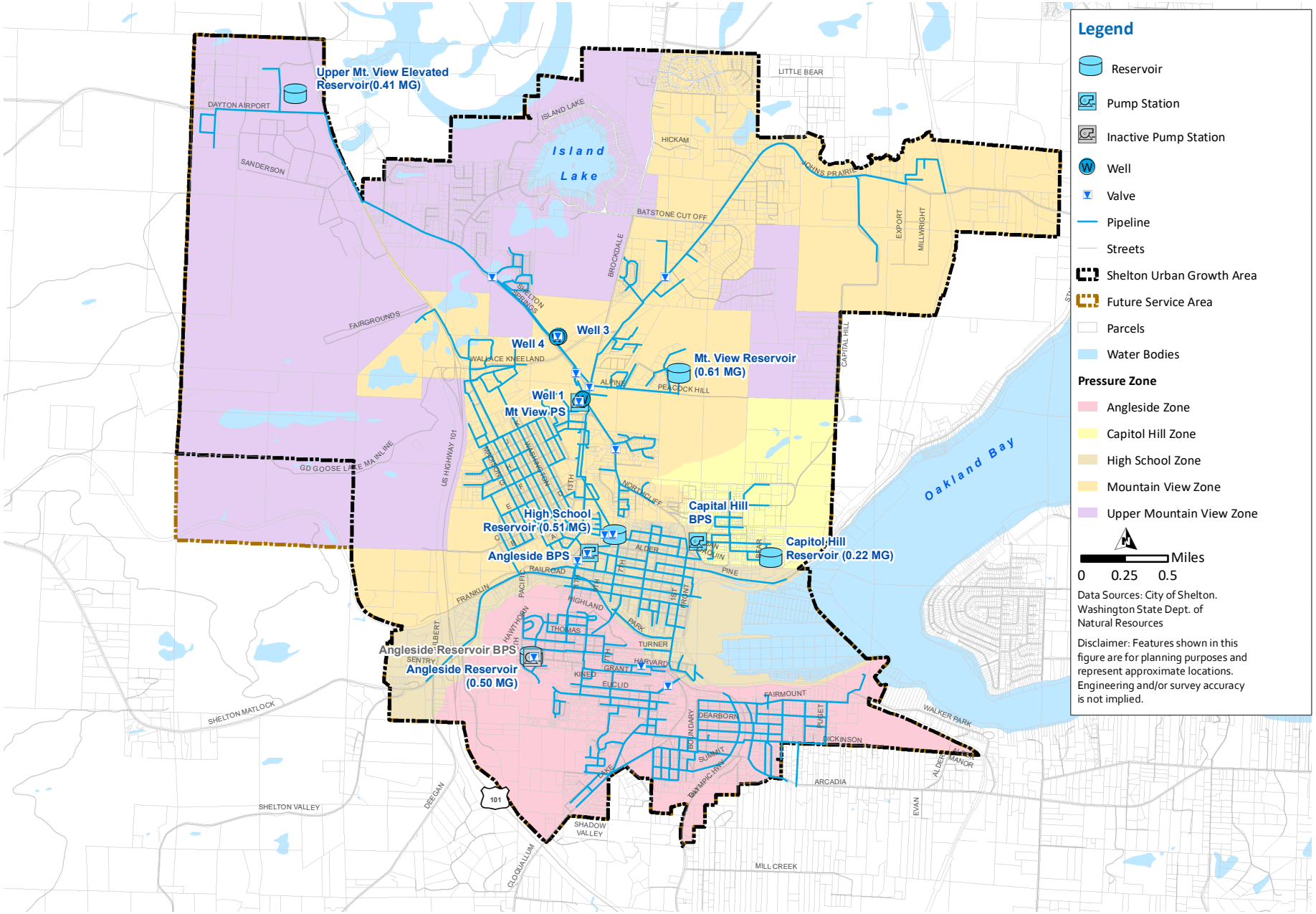
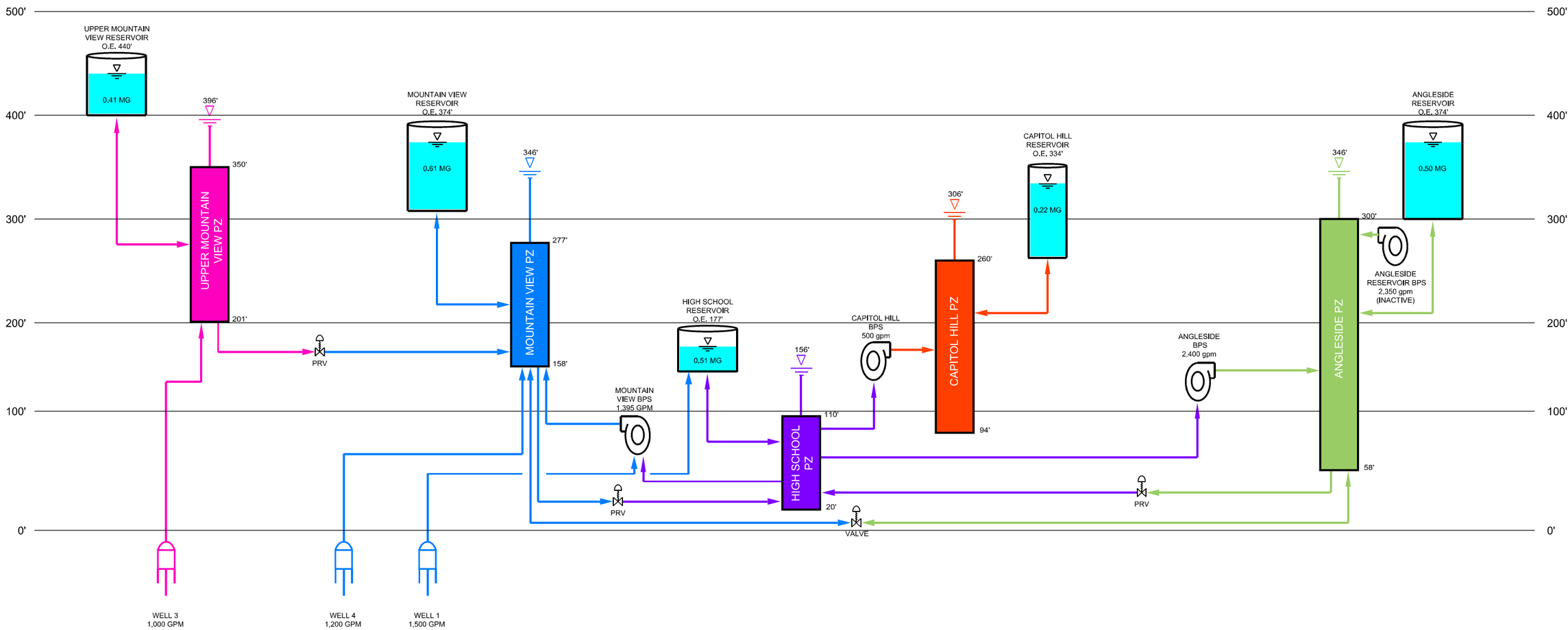


Figure 3.5 Shelton Existing Water System



LEGEND

- UPPER MOUNTAIN VIEW PZ
- MOUNTAIN VIEW PZ
- HIGH SCHOOL PZ
- CAPITOL HILL PZ
- ANGLESIDE PZ

RESERVOIR (X.XX MG)

PRESSURE ZONE
HIGH: HIGHEST ELEVATION SERVED IN ZONE
LOW: LOWEST ELEVATION SERVED IN ZONE
HGL: HYDRAULIC GRADE LINE FOR ZONE

STANDPIPE
LIVE VOLUME INSIDE STANDPIPE

PRESSURE REDUCING VALVE

BOOSTER PUMPING STATION

WELL (SXX XXX GPM)

Figure 3.6
HYDRAULIC PROFILE
CITY OF SHELTON
COMPREHENSIVE WATER SYSTEM PLAN

carollo

$$$$FILE$$$$
$$$$DATE$$$$
$$$$USER$$$$

3.5.1.1 Water Mains

The City's water distribution system consists of approximately 66 miles of water main, including 6 miles that have been installed since the 2010 Plan. Approximately 4 miles of the new pipeline connects the Mountain View PZ and the new Upper Mountain View PZ reservoir.

The City's transmission and distribution system consists of pipes ranging in diameter from 2 to 24 inches (in). The various pipe materials include ductile iron, asbestos-cement, polyvinyl chloride, cast iron, steel, and high density polyethylene. Table 3.2 provides a summary of the length water main by diameter.

Table 3.2 Water Mains by Diameter

Pipe Diameter (in)	Length (ft)
< 6	9,509
6	140,483
8	91,759
10	5,074
12	78,432
14	2,396
16	18,718
20	2,139
24	2,497
TOTAL	**351,007**

3.5.2 Source Supply

The City's primary supply source comes from wells (specifically Wells 1, 3, and 4). Well 4 supplies the Mountain View PZ. Well 3 supplies the Upper Mountain View PZ. Well 1 rehabilitated design is ongoing and once complete is anticipated to directly supply both the Mountain View and High School PZ. Shelton Springs, the source of Shelton Creek, is designated as an emergency source.

3.5.2.1 Water Rights

The water rights information for this section was obtained from files maintained at Washington State Department of Ecology (Ecology), as reported in the City's 2010 Water System Plan. Table 3.3 summarizes the City's water rights, and Chapter 5 provides the current and future Water Rights Self-Assessment Forms. Appendix 3C presents copies of available water rights documentation.

An instantaneous right (Qi) represents the maximum pumping capacity of a well or maximum diversion rate for a spring or surface water source. An annual right (Qa) represents the total quantity of water that may be withdrawn or diverted during an entire year. The priority date helps rank those water rights that are junior or senior according to the dates on which the application was submitted to Ecology. The right with the earliest date has the highest priority for withdrawal.

The City has water rights issued by Ecology for a total instantaneous right of 7,450 gpm. The instantaneous water right issued to Shelton Springs is 5 cubic-feet-per-second (cfs) or 2,250 gpm. This instantaneous quantity corresponds to an annual water right of 3,620 acre-feet per year (AFY) from Shelton Springs.

Water right certificate G2-25241 issued for Well 3 is supplemental to rights for Shelton Springs and Wells 1 and 2. A condition of this certificate is that "the total quantity of water allocated to the City under all water rights shall not exceed 4,034 acre-feet per year." Therefore, the current total annual water right is 4,034 AFY.

The purpose or "type of use" specified for the City's water rights is "municipal supply." In the most recent water right certificate, the "place of use" is described as the "area served by the City of Shelton."

The annual water right equates to an ADD of 3.6 million gallons per day (mgd). The Superseding Certificate G2-25241 for Well 3 reduced the instantaneous quantity for that source from 2,000 gpm to 1,000 gpm. The total instantaneous quantity of 7,450 gpm is equivalent to a maximum day demand (MDD) of 10.73 mgd.

Table 3.3 City of Shelton Water Right Summary

Name	ID Number	Instantaneous Qi (gpm)	Annual Qa (ac-ft)	Priority Date
Shelton Springs	233	5 cfs or 2,250 gpm	3,620[P](1, 5)	6/25/1926
Well 1	1008-A	3,000	1,190[P](2, 5)	3/11/1948
Well 4	2072-A	1,200	1,433[S](3, 5)	7/20/1953
Well 3	G2-25241 Superseding certificate	1,000	1,500[S](4, 5)	5/21/1979
Total		7,450	4,034	

Notes:
(1) Qa for Shelton Springs is based on year-round production at the instantaneous water right rate of flow.
(2) The Report of Findings for this source states, "The well is to be used to replace other wells of the city and is to be used a maximum of 3 months full time per summer season at 3,000 gpm, if obtainable which amounts to 1,190 acre-feet per year."
(3) The Report of Examination for this source states, "The total withdrawal authorized under this permit shall not exceed 1,344 acre-feet per year, less any amount available under existing rights."
(4) Superseding Certificate G2-25241 has the provision that "[t]he annual quantity of water allocated to the City of Shelton under all existing rights shall not exceed 4,034 acre-feet per year."
(5) Previously associated with Well 2.
[P] = Primary water right.
[S] = Supplemental water right, not additive.
Abbreviation: ac-ft – acre feet; ID – identification.

3.5.2.2 Supply Infrastructure

City supplies are from three wells and a spring Table 3.4 summarizes the depth, pumping capacity, and status of the sources. Additional information on each well are presented below.

Table 3.4 Source Pumping Capacity

Source	Depth (ft)	Pumping Capacity (gpm)	Status
Shelton Springs	Spring	--	Inactive; Emergency Use Only
Well #1	745	1,500	Active
Well #3	278	1,000	Active
Well #4	298	1,200	Active

3.5.2.3 Well 1

Well 1 is cased with 20-, 16-, and 12-in-diameter steel to a depth of 745 ft. It is located to the south of Shelton Springs Road in the SE 1/4, SW 1/4, Section 7, Township 20 N, Range 3 W. The 2010 Plan reported that this well was perforated from a depth of 515 ft to 725 ft, and water system staff indicated that it's plugged to a shallower depth whose first open interval is 265 ft. The well driller's log indicates that a sanitary seal was placed in the annular space surrounding the casing to a depth of 200 ft, but the type of grout material is not specified.

The well is equipped with a 100-horsepower (hp), Byron Jackson submersible pump and a flow meter. The reported maximum pumping capacity of the well is 1,475– 1,500 gpm.

The well discharges to a gravity line flows from the well to either the High School PZ reservoir or a Clearwell at the Mountain View booster pump station (BPS). The Well 1 connection to the Mountain View BPS is used during an emergency.

This well is an active permanent source that is available upon a demand signal released from the supervisory control and data acquisition (SCADA) system according to High School PZ reservoir levels. Typically, this source is utilized to meet MDD by blending with the other well sources to meet customer expectations for taste and odor. Iron and hydrogen sulfide have been detected in this source at moderately low levels.

3.5.2.4 Well 2

Well 2 is a 12-in-diameter, 285-foot-deep well located to the north of Shelton Springs Road in the NE 1/4, SW 1/4, Section 7, Township 20 N, Range 3 W. It was originally drilled to a depth of 708 ft then sealed to a shallower depth due to water quality concerns with the deeper aquifer.

The well's casing is perforated from a depth of 205 ft to 278 ft with 1/4- by 2-in slots. It is equipped with a 60-hp, Worthington, water-lubricated, vertical-line shaft turbine pump and a flow meter. The pumping capacity is 855 gpm.

This well has experienced problems in the past and has occasionally had elevated levels of iron. Thus, Well 2 is physically disconnected from the water system and protected in a secure enclosure; it was replaced by Well 4 in 2005. Still, the City intends to maintain this well as an emergency source or monitoring well in the future.

3.5.2.5 Well 3

Well 3 is drilled to a depth of 278 ft, with a 16-in-diameter casing. It is located to the north of Shelton Springs Road just 117 ft northwest of the old Well 2. A stainless steel screen is located between a depth of 212 ft and 273 ft. A bentonite surface seal was placed in the 4-in annular space to a depth of 68 ft where it was seated into a clay layer.

The well is equipped with a 75-hp Dempster Industry pump with an Exodyne motor, flow meter, and water level recorder. The reported pumping capacity for the well is 1,200 gpm but the authorized instantaneous flow (Qi) for this well per the associated water right is only 1,000 gpm. This well is an active permanent source that is available upon a demand signal from SCADA according to Upper Mountain View PZ reservoir levels.

3.5.2.6 Well 4

Well 4 was drilled in 2005 to a depth of 298 ft and located in the NE 1/4, SW 1/4, Section 7, Township 20 N, Range 3 W. The well has a 16-in-diameter casing with a bentonite surface seal to a depth of 20 ft. A stainless steel slotted screen is installed from a depth of 197 ft to 274 ft.

The well is equipped with a submersible pump that is reported to produce 1,200 gpm. Pumping is activated upon a demand signal from SCADA according to Mountain View PZ reservoir levels. The DOH finalized the approval of this source in September 2007.

3.5.2.7 Shelton Springs

Shelton Springs was constructed in 1927 and is currently designated as an emergency source. As mentioned earlier, it is the source of Shelton Creek.

In 2007, the City submitted a water rights transfer application for Shelton Springs to transfer these rights to two new deep wells at locations that had not yet been determined.

3.5.2.8 Treatment Facilities

In October 2003, the DOH Office of Drinking Water required permanent and continuous disinfection of the water system due to the continued and intermittent coliform presence in the system. Today, the City disinfects all active source water with sodium hypochlorite chlorination at each source. The dedicated transmission main from Well 1 to a Mountain View PZ BPS clearwell has no service connections to it and provides chlorine contact time for the full distance between the wells and the clearwell. Chlorine contact time for Wells 3 and 4 is achieved in the transmission main, which conveys water to customers before the water reaches the service connections.

At set rates noted in Table 3.5, metering pumps inject sodium hypochlorite solution into the individual wellhead plumbing before the water meters. The target for the disinfection system is to maintain a minimum of 0.2 milligrams per liter (mg/L) chlorine residual at the end of the system.

Table 3.5 Disinfection Metering Pumps

Well	Well pump rate[(1)] (gpm)	Metering pump (stroke/min)	Metering pump rate (gal/hr)	Chlorine dose (mg/L)
1	1,500	335	1.90	3.2[(2)]
4	1,200	85	0.24	0.4
3	1,000	85	0.31	0.6

Notes:
(1) If any well is modified to pump at a different rate than noted, the metering pump for that well must be readjusted to maintain the desired chlorine dose.
(2) The reason for the high chlorine dose for Well 1 is that there appears to be a high chlorine demand in the gravity pipeline between Well 1 and the High School Reservoir
(3) Information is from the O&M Manual for Well Nos. 1, 4, and 3 Hypochlorination System at City of Shelton Water System, November 2007.
Abbreviations: min – minute; hr – hour; gal/hr – gallons per hour.

3.5.2.9 Ability to Serve

The ability to serve was determined for each of the City's sources. The ability to serve is the maximum capacity of a source considering water rights, pumping capacity, treatment capacity, and aquifer or regulatory limitation. The City's existing ability to serve is tabulated in Table 3.6. The table consist of the following components:

- Pumping Capacity: The pump or physical capacities at each source.
- Instantaneous Water Right (Qi): The sum of instantaneous water rights on contractual maximum at each source.
- Treatment Capacity: The available treatment capacity for each applicable source.
- Other Limitations: Designation of source as an emergency source.

Table 3.6 City of Shelton Pumping Ability to Serve

Supply Source	Pumping Capacity (gpm)	Qi (gpm)	Treatment Capacity (gpm)	Ability to pump (gpm)	Other Limitations	Limiting Component
Shelton Springs	--	2,250	--	--	Emergency Source	Emergency Source
Well 1	1,500	3,000	1,500	1,500	--	Pumping and Treatment
Well 4	1,200	1,200	1,200	1,200	--	
Well 3	1,000	1,000	1,000	1,000	--	
Total	3,700	7,450	3,700	3,700	--	

3.5.3 Storage

The City has one storage tank for each of the following pressure zones within the service area: Mountain View, Angleside, High School, Capitol Hill, and Upper Mountain View. These tanks have a total storage capacity of 2.25 million gallons (MG). Each reservoir supplies a distinct pressure zone with an HGL established by the reservoir overflow elevation. Table 3.7 summarizes the storage reservoir information.

3.5.3.1 Mountain View Reservoir

The Mountain View tank is a 611,000-gal steel standpipe with a height of 65 ft, diameter of 40 ft, base elevation of 308 ft, and an overflow elevation of 373 ft. Built in 1972, this tank serves the Mountain View PZ. The tank can receive water from the Mountain View BPS, the Angleside BPS, or directly from Well 4. Relevant BPSs are also discussed in Section 3.5.4.2.

3.5.3.2 Angleside Reservoir

The Angleside tank has a normal volume of 448,000 gals and was built in 1967. It is a steel standpipe tank. The tank is 66-ft high and 34 ft in diameter and has a base elevation of 308 ft and an overflow elevation of 374 ft. This storage tank can receive supplies from the Angleside Pump Station (PS). The City has constructed the Angleside Reservoir BPS to pump the dead storage from the Reservoir, which can be operated manually by the City.

3.5.3.3 High School Reservoir

Built in the early 1950s, the High School storage tank is a steel reservoir with a normal volume of 507,000 gals. The tank is 24-ft high and 60 ft in diameter and has a base elevation of 153 ft and

an overflow elevation of 177 ft. The tank receives water from Well 1, through a 20-in steel gravity line that flows into the top of the tank or is supplied from the Mountain View PZ through an altitude valve.

3.5.3.4 Capitol Hill Reservoir

The Capitol Hill tank is a 218,000-gal steel standpipe tank with a base elevation of 264 feet and an overflow elevation of 334 ft. Built in 1954, the tank is 23 ft in diameter and 70-ft tall. Water is supplied from the High School PZ to this reservoir via the Capitol Hill BPS.

3.5.3.5 Upper Mountain View Reservoir

The Upper Mountain View reservoir is an elevated, 410,000-gal storage tank, which has a base elevation of 400 feet and an overflow elevation of 440 ft and is 40-ft tall and has a diameter of 42 ft. This tank receives water from Well 3 and serves the Upper Mountain View PZ.

Table 3.7 Storage Reservoir Summary

Name	Type	Volume (gal)	Base Elevation (ft)	Overflow Elevation (ft)	Diameter (ft)	Height (ft)
Mountain View	Standpipe	611,000	308	373	40	65
Upper Mountain View	Elevated	410,000	400(1)	440	42	40
Angleside	Standpipe	448,000	300	374	34	74
Capitol Hill	Standpipe	218,000	264	334	23	70
High School	Standpipe	507,000	153	177	60	24

Note:
(1) The ground elevation under the Upper Mountain View Reservoir is 303 ft.

3.5.4 Booster Pump Stations

The City has three BPSs that serve the Mountain View, Angleside, and Capitol Hill PZs and one pump station at the Angleside Reservoir. Table 3.8 summarizes the BPS information.

3.5.4.1 Mountain View Booster Pump Station

The Mountain View BPS is located adjacent to Shelton Springs and is fed through a bypass line from the City's wells that discharge into a 10,000-gallon clearwell. Built in 1972, this facility is equipped with two pumps, each with 50-hp motors. The actual observed pumping capacity is 770 gpm for Pump 1 and 625 gpm for Pump 2, according to a direct reading of the magnetic flow meter.

Pump 1 was replaced in 1999 with a 50-hp Paco pump and motor.

3.5.4.2 Angleside Booster Pump Station

The Angleside BPS was constructed in 1998 to replace an older booster station. It is equipped with two 1,000-gpm nominal capacity Paco pumps, each with 100-hp motors. With one pump running, the observed output is approximately 1,200 gpm, according to a direct reading of the magnetic flow meter.

The building and pipe layout is sized to accommodate one additional 1,000 gpm pump with a 100-hp motor.

3.5.4.3 Angleside Reservoir Booster Pump Station

The Angleside Reservoir BPS was constructed in 2016. It is equipped with two 500-gpm nominal capacity pumps and one 1,350-gpm nominal capacity pump. The Angleside Reservoir BPS is currently only able to be operated manually.

3.5.4.4 Capitol Hill Booster Pump Station

The Capitol Hill BPS, located at Magnolia St. and E Fir St., is equipped with a 40-hp primary pump with an observed capacity of 430 gpm and a backup pump rated at 140 gpm with a 15-hp motor. The combined capacity of the two pumps is approximately 500 gpm.

Table 3.8 Booster Pump Station Summary

Name	Pump	HP	Capacity (gpm)	Total Capacity (gpm)	Ground Elevation (ft)
Mountain View	1 2	50 50	770 625	1,395	215
Angleside	1 2	100 100	1,000 1,000	2,000	30
Angleside Reservoir BPS	1 2 3	45 115 45	500 1,350 500	2,350	300
Capitol Hill	1 2	40 15	430 140	500	140

3.6 Policies and Criteria

The City is responsible for managing and operating its water system in accordance with all known local, state, and federal regulation. To best manage the system and comply with regulations, the City has adopted water system policies and criteria that guide the development and financing of the infrastructure required to provide water service and help the City document its commitments to current water system customers as well as those considering service.

The following sections outline the City's policies and design criteria for water system planning. Tables 3.9 and 3.10 list existing policies; proposed policies are also listed at the bottom of each table if applicable.

The policies and criteria are organized into the following categories:

- Water service and service extensions, including Duty to Serve.
- System Criteria including facility requirements, reliability recommendations reliability, and fire protection.
- Agency coordination.
- Financial policies.

Appendix 3D provides the City's Design and Construction Standards.

3.6.1 Water Service and Service Extensions

Table 3.9 summarizes the existing and proposed policies for the water service area and extension of water service to additional properties. The City is committed to serving customers within its retail service area (RSA) in accordance with established policies.

Table 3.9 Water Service and Service Extensions

Subject	Policy / Goal	Source
Duty to Serve	Municipal water supplies have a duty to provide service to all new connections within their retail service area when the circumstances meet the following four threshold factors: 1. The municipal water supplier has sufficient capacity to serve water in a safe and reliable manner. 2. The service request is consistent with adopted local plans and development regulations. 3. The municipal water supplier has sufficient water rights to provide service. 4. The municipal water supplier can provide service in a timely and reasonable manner.	DOH 331-366
Fire Flow Requirements for Existing Construction	The minimum fire flow available to existing facilities shall be the fire flow requirements at the time of construction. Existing structures are not required to upgrade the water system infrastructure to meet current fire flow and development standards unless redevelopment of the structure of property triggers such upgrades. Similarly, the Utility is not obligated to upgrade available fire flow to meet current code requirements. However, when analyzing the need for water system improvements, improved fire flow should be considered when weighting the project's merits.	Proposed New Policy
Water main extensions	A. A main extension shall be required whenever the property to be served fails to abut a water main, or the existing main is inadequate to provide the necessary water pressure or flow characteristics. B. All main extensions shall extend to and across the full width of the property served with water, unless otherwise approved by the City. Corner lots shall extend to the middle of the intersection.	SMC 15.24.010
Design and performance	All design and construction plans and specifications shall be in accordance with American Public Works Association standards and development standards adopted by the City.	SMC 15.24.030 and City Design and Construction Standards
Oversizing main extensions	The City may require that any water main be oversized if the City determines that oversizing will be in the best interest of the City's water system, and the larger size is reflected in the City's water comprehensive plan.	SMC 15.24.090

Subject	Policy / Goal	Source
Water outside city limits	Any person owning property outside the city limits and desiring to have their property connected to the City's water and sewer systems shall make application at the office of the City Clerk. Every applicant for water and sewer service outside the city limits, except for municipal corporations or quasi-municipal corporations, such as water, sewer or fire districts making application under Section 17.10.010, must sign a utility extension agreement with the City, which conditions the provision of the service. Terms to be included in the extension agreement are identified in Section 17.10.020 (Appendix 1G). It is the City's policy that the property owner is not necessarily required to construct and connect to both water and sewer concurrently, but that the owner agree to connect, once the systems are available.	SMC 17.10.010 SMC 17.10.020
Extensions for public health, safety, or environmental reasons.	Owners of property located outside the City UGA boundary may make application for expansion or extension of sewer and water service to their property outside the City UGA boundary. The City Council shall review the application and may, in its sole discretion, allow the extension or expansion of sewer and water service if the council finds: 1. That the requested service is necessary to protect basic public health and safety and the environment; 2. That the requested service is financially supportable at rural densities and does not permit urban development; 3. That the City's NPDES permit will not be affected by the extension or expansion; and 4. That the extension or expansion is consistent with the goals of the City's sewer comprehensive plan, its water comprehensive plan, and all other applicable law, including, but not limited to, the Public Water System Coordination Act (RCW 70.116), and SEPA (RCW 42.31C). The City Council's approval of any extension or expansion under the criteria above may be conditioned. Such conditions may include, but shall not be limited to, the following: 1. Restrictions may be placed on the hours that the City will accept sewage flow from the applicant. 2. Restrictions may be placed on the amount of sewage flow or water provided to the applicant. 3. The applicant shall have the responsibility to maintain and operate its own facilities. (Ord. 1921-0518 (part); Ord. 1690-0107 § 1 (part), 2007)	SMC 17.10.040

Subject	Policy / Goal	Source
City contribution to developer-initiated public projects.	Projects proposed by private developers that provide benefit to the existing water system may be evaluated by the council at a developer's request to determine whether it is in the best interest of the public for the City to contribute funds or resources to the project. The council will base their decision on guidelines outlined and established in a written policy.	SMC 15.24.120
Latecomer agreements	A person who constructs a main extension in excess of minimum standards may enter contract with City for reimbursement the portion of construction costs that benefit adjoining landowners.	City Development Standards Section 1.16.
Local improvement districts outside corporate boundaries	For the purpose of water system planning, City practice has been that Local Improvement Districts may only be created within City boundaries or an area annexed into the City, which is a condition for water service. In the future the City will consider the formation of LIDs on a case-by-case basis.	
Direct connection and satellite/remote systems	It is the City's policy that all new development within the retail service area will be served by direct connection to the City's water system. The City does not intend to become a DOH-approved satellite management agency. If the City is called upon to be a satellite management agency, the council would be required to adopt a Satellite System Management Program prior to taking control of the system.	
Cross connection control	Installation of a cross-connection is prohibited. Standards are WAC 246-290-490 as amended. Furnishing water service is contingent upon the customer providing cross-connection control approved by the City for protecting the city water supply from backflow.	SMC 15.08.080
Wholesaling water	The City will evaluate the feasibility of wholesaling water to other utilities on a case-by-case basis. Implementation of the regional plan will result in the City wholesaling water to the Academy. In the future, once the system is extended to the WCC, the City will also wholesale water to the Department of Corrections. Wholesaling of water to the Port's water system at John's Prairie is also anticipated once the City system is extended along John's Prairie Road. As a condition of service, wholesale water customers will be required to monitor and report DSL.	
Wheeling water	The City does not have a policy for wheeling water to another system. The City will evaluate any future plan to wheel water on a case by case basis. No interconnections to systems that would potentially wheel water are anticipated in this Plan.	

Subject	Policy / Goal	Source
Service to customers outside city limits	It is the City's policy that all water and water-related services furnished to a user outside the city limits shall be charged at the rate of 150 percent of the schedule for rates and charges for city residents.	SMC 15.28.080
Group A and Group B Water Systems (Proposal)	The City may assume the operation of a public Group A and Group B water system at their request, if the following conditions are met and subject to approval by the City Council: • The water system is within the City's service area boundaries. • The properties served by the water system are annexed or become annexed by the City boundary. • The water system facilities meet the City's engineering Standards and Conditions or a plan is in place to assure that the system will be brought up to the City's standards without adversely impacting the balance of the City's customers financially or with regard to LOS. • The City may require the private water system to successfully transfer ownership of its water supply and associate water rights (if significant) to the City through the appropriate process with Ecology to permit municipal use, prior to commitment for water from the City.	

Subject	Policy / Goal	Source
Satellite System Management Program (proposal)	The City may be called upon to provide some level of response to adjacent areas beyond District boundaries that require a public water supply. The City will evaluate requests or application on a case-by-case basis. The City will review requests for satellite management of separate and self-contained water systems based on the following considerations: • Economic Feasibility. Economic feasibility is gauged by the distance between the project site and the City's system, engineering variables that might affect cost, the size of the project to be served by the water system, possible participation by other interested parties, and other factors the City considers relevant. Whenever connection to the City's system is economically feasible, the City will not provide satellite management services. Instead, these properties would be required to extend the City's permanent water system to obtain water service. • Existing Systems. The condition of the existing system and its compatibility within the City's system must be determined by the City. The ability of property served by the system to fund necessary upgrades, either privately or through municipal funding mechanisms will also be evaluated. Supply adequate in quantity and quality must be available, and water rights must ultimately be transferred to the City. • New System. The applicant must possess water rights adequate to supply the project and be willing to transfer those rights to the City. This would generally only apply to those systems that collectively have an average daily use of more than 5,000 gals. In typical scenarios, public water system with fewer than seven connections are not required to have water rights. The system must be constructed according to City standards and specifications. Except when otherwise approved, the City will own all systems which it agrees to manage, and rates and charges will be established by the Board according to law. Satellite systems will be subject to all rules and regulations of the District, and will be connected to the District's system when public service is available to the property or properties.	

Note:
Abbreviations: DSL – distribution system leakage; LID – local improvement district; LOS – level of service; NPDES – National Pollutant Discharge Elimination System; Plan – City of Shelton Water System Plan; RCW – Revised Code of Washington; SEPA – Washington State Environmental Policy Act; SMC – City of Shelton Municipal Code; WAC – Washington Administrative Code.

3.6.2 System Analysis Criteria

Table 3.10 outlines current system criteria, including facility requirements, reliability recommendations, and fire protection. These criteria are used to perform the system analysis as presented in Chapter 5.

Table 3.10 System Analysis Criteria

Subject	Policy	Source
Source		
Storage	The sum of: **Operational Storage**: Volume sufficient to prevent pump recycling, **Equalizing Storage**: ES = (PHD – QS) * 150 minutes **Standby Storage**[1,2]: SB = 2 days * (ADD – (QS – QL) * 1440 minutes/day) **Fire Suppression Storage**[1]**:** FSS = FF * T where: PHD = Peak hour demand, gpm ADD = Average day demand, gpd QS = Capacity of all sources, excluding emergency sources, gpm QL = Capacity of largest source, gpm FF = Required fire flow, gpm T = Fire flow duration, min The smaller volume between fire suppression storage volume and standby storage volume may be "nested" within the larger volume, subject to local ordinances. DOH recommends that SB volume be no less than 200 gallons/ERU.	DOH Water System Design Manual, Ch. 9
Minimum System Pressure	The system should be designed to maintain the following minimum pressures: 30 psi in the distribution system under peak hour demand. 20 psi under fire flow conditions during MDD.	DOH Water System Design Manual, Ch. 8
Fire flow Standard	The minimum FF shall be determined by the local fire authority or WAC 246-293 for systems within a CWSSA.	Reference memo from Dave Salzer, Asst. Fire Chief, Mason Co. FD 5, May 28, 2009. Appendix 3A and Section 3.3.2. In general, requirement is 750 gpm for 120 minutes for residential areas and 1,500 gpm for 120 minutes for commercial areas.
Minimum Pipe Size	The diameter of a transmission line shall be determined by hydraulic analysis. The minimum size distribution system line shall not be less than 6-inches in diameter. The City has adopted a minimum water distribution main diameter of 8-inches.	DOH Water System Design Manual, Ch. 8

Subject	Policy	Source
Reliability Recommendations	Sources capable of supplying MDD within an 18-hour period. Sources meet ADD with largest source out of service. Backup power equipment for pump stations unless there are two independent public power sources. Provision of multiple storage tanks. Standby storage equivalent to ADD X 2, with a minimum of 200 gpd/ERU. Low and high level storage alarms Looping of distribution mains when feasible. Pipeline velocities not > 8 fps at PHD. Flushing velocities of 2.5 fps for all pipelines.	Same as DOH Water Design Manual, Chapter 5, with exception of: Flushing velocity goal of 2.5 fps, but a lower velocity may be realized in existing neighborhoods. Distribution mains shall be looped when longer than 1,200 ft. Transmission mains 12-in and larger that are designed to extend service to the limits of the service area are not required to be looped unless feasible.
Valve and hydrant spacing	Sufficient valving should be placed to keep a minimum of customer out of service when water is turned off for maintenance or repair. Fire hydrants on laterals should be provided with their own auxiliary gate valve.	Valve standard are outlined in the City's Design and Construction Standards. Minimum hydrant spacing is 300 ft in residential areas.

Note:
Abbreviations: CWSSA - critical water supply service area; ERU - Equivalent Residential Unit; FF – fire flow; fps – feet per second; gpd/ERU – gallons per day per Equivalent Residential Unit; PHD – peak hour demand; psi – pounds per square inch.

3.6.3 City of Shelton Comprehensive Plan Policies

The City's Comprehensive Plan and Mason County's Shelton UGA Plan address future land use, development, and population trends within the City's UGA. Appendix 3E presents chapters from these two plans that establish policies related to the City's water system.

3.6.3.1 Public Utility Policies

The City has established public utility policies as a portion of Chapter VI of the 2017 Shelton Comprehensive Plan. This general policy section recognizes the need to coordinate planning and provide for service demands created by new growth. In addition, they express a commitment to appropriate rate structures, environmental compatibility, and reduction of solid wastes. These general policies are as follows:

- Capital Facilities and Utilities (CFU) 1. Ensure that utilities, public facilities, and services are provided, operated, and maintained in an effective and efficient manner:
  - CFU1a. Utilities, public facilities, and services should be designed and constructed to handle the anticipated growth of the service area, and to minimize future maintenance and repair costs.
  - CFU1b. Sewer and water lines and related facilities needed to serve new development should be the responsibility of the developer or provided through a local improvement district.
  - CFU1c. The City should update and conduct capital facilities planning through the annual review process of the Capital Facilities Element (CFE), mandated by the Growth Management Act (GMA).
  - CFU1d. The City should apply for all available state and federal grants and other funds to assist development and improvement of sewer, water, and other public facilities and services.
  - CFU1e. Siting for new utilities and facilities shall be compatible with other plan elements and consider impacts on future City development and land use patterns.
  - CFU1f. The City should, in conjunction with private utility providers and special purpose districts, designate areas for the location of utility facilities when it is known that facilities are needed and planned.
- CFU2. Maintain and enhance current level of service (LOS) standards and capacities, as growth occurs, to enhance quality of life in the City:
  - CFU2a. The City will maintain a Concurrency Management System to monitor the effects of population growth and contain requirements for maintaining the adopted transportation LOS standards.
  - CFU2b. Ensure that new development occurs only when adequate utilities and public facilities necessary to support the development are available.
- CFU3. Prioritize capital facilities in such a way that existing deficiencies are eliminated before other improvements are considered.
  - CFU3a. The City should actively seek public input and analyze needs when establishing capital facility priorities.
  - CFU3b. Available revenue sources should be allocated to finance facility improvements that eliminate the most important deficiencies first.

- CFU4. The City should maintain a financing strategy to cover the costs of needed facilities and improvements contained in the CFE:
  - CFU4a. The City's CFE shall identify all funding sources to pay for the needed projects, as required by the GMA.
  - CFU4b. If probable funding falls short the City shall incorporate one or all of the following:
    - a. Reassess the Land Use Element to reduce the impacts associated with densities and land use designations;
    - b. Lower the adopted LOS standards to reflect service levels that can be maintained given the known financial resources;
    - c. Increase the amount of available revenue through rate increases;
    - d. Impose impact fees; or
    - e. Decrease the amount of project costs.
- CFU5. A concurrency management system should support adopted service standards for parks and open space.
  - CFU5a. Development in the City and UGA are required to satisfy at least one of the following requirements in a manner proportional to the impact and/or size of the development as part of expected growth:
    - a. Provide an open space easement or dedication as a development requirement if within designated open space areas. Development incentives may be offered for remainder of property. These could include, current use taxation programs, or transfer of development rights programs; or
    - b. Contribute to open space acquisition fund; or
    - c. Donate property open space designation to the City; or
    - d. Create an irrevocable living will or trust providing that the open space area will be donated or an easement created in the future. Such agreements must be guaranteed by an encumbrance to property title. (For purposes of this policy, "development" is defined as any construction of a new residential unit, or a commercial or industrial building.)
- CFU6. Implement the Capital Facilities Plan in a manner that coordinates and is consistent with the plans and policies of other elements of the Comprehensive Plan, Countywide Planning Policies, and the GMA:
  - CFU6a. All capital facilities and improvements should be consistent with the adopted Land Use Map and the goals and policies of other elements of this Comprehensive Plan.
  - CFU6b. The City should maintain a Memorandum of Understanding with Mason County to coordinate planning for and development of the UGA, and to ensure that development and facilities follow the vision set out in the Comprehensive Plan.
- CFU7. Promote consistency between the long-range capital facilities and utilities planning and the Comprehensive Plan:
  - CFU7a. The City shall adopt the following utilities plans as they now exist, and as subsequently amended, as part of this comprehensive plan: The City of Shelton Water System Plan, the City of Shelton Sewer Comprehensive Plan, Shelton Regional Sewer Plan Wastewater Facility Plan and Water Comprehensive Plan Amendment and Project Report for the Shelton Area Regional Water System,

Addendum to Shelton Regional Sewer Plan Wastewater Facility Plan and to Shelton Water Comprehensive Plan and Project Report for the Shelton Area Regional Water Systems.
  - CFU7b. All utility master plans should be updated to support the objectives of the Comprehensive Plan.
  - CFU7c. The City should provide periodic updates of population, employment, and development forecasts to all utility managers to promote joint planning efforts.
- CFU8. Provide and maintain public utility facilities and services to all persons living within utility service areas in a cost-effective manner:
  - CFU8a. Promote conservation and demand management programs to reduce the need for rate increases and new facilities created by future growth.
  - CFU8b. Public utility maintenance and rehabilitation programs should be implemented to reduce maintenance costs and minimize rate increases.
  - CFU8c. Public facilities and services should be designed and constructed to handle the anticipated growth of the service area, and to minimize future maintenance and repair costs.
- CFU9. Ensure environmentally sensitive, safe, and reliable capital facility and utility services that are reasonably compatible with surrounding land uses:
  - CFU9a. The City should ensure that capital facilities and utilities are reasonably compatible with surrounding land uses and reasonably minimize their impacts on the natural environment, consistent with the serving utility's public service obligations.
- CFU10. Provide an adequate and effective recycling program to serve the needs of City's residents:
  - CFU10a. The City should encourage multi-family and commercial developments to provide onsite recycling containers through land development regulations.
- CFU11. Process permits and approvals for utility facilities in a fair and timely manner and in accord with the development regulations:
  - CFU11a. The City should promote, when reasonably feasible, co-location of new public and private service distribution facilities in shared trenches and coordination of construction timing to minimize construction-related disruptions to the public and reduce the cost to the public of service delivery.
  - CFU11b. Private utility providers and special purpose districts shall prepare such plans and strategies as may be necessary to provide necessary services concurrent with demand.

3.6.3.2 Shelton UGA Plan Service Area Policies

The City has established UGA policies as a portion of Chapter X of the 2017 Shelton Comprehensive Plan. This general policy section established the goals and policies of the UGA. As appropriate, the UGA Plan goals and policies shall be applied together with other Comprehensive Plan goals and policies. The general policies that relate to the water system are as follows:

Urban Growth Area Services Provision

The following goals and policies for future annexations and the provision of services in the UGA provide direction regarding utility extension and the circumstances in which it will occur. This will

help to facilitate a seamless transition of services in the UGA if and when properties become annexed to the City.

UGA Goal 4: Provide effective, efficient, and quality capital facilities and public services at the level necessary to meet community needs and support allowed growth.

Policy UGA4a. The County and City should coordinate with service and utility providers to ensure UGA services support planned growth, meet desired customer service needs, and result in a comparable community system in the greater Shelton area.

Policy UGA4b. The City and County should coordinate with local Fire Districts, to ensure adequate fire and emergency response in the UGA.

Policy UGA4c. The City's LOS standards for sewer and water service should be applied to the UGA once services are extended into the UGA. Sewer and water improvements and services should be consistent with the Regional Water and Sewer Plans identified in the City's Comprehensive Plan Utilities Element as amended over time. City of Shelton Comprehensive Plan – Urban Growth Area Element – November 2017 X-11

Policy UGA4d. In consultation with the Mason County Sheriff's Department, the City should ensure adequate police services are provided within the UGA.

Policy UGA4e. To avoid City assumption of nonconforming infrastructure, a coordinated Capital Improvement Program and maintenance plan should be prepared between the City and County. Such a program should be developed prior to annexation required to meet levels of service are implemented concurrent with new development. When considering annexation proposals that have significant existing nonconforming infrastructure, the City should consider service delivery and revenue enhancement options.

Policy UGA4f. The City will consider extension of water and sewer services outside City limits based on criteria including, but not limited to the following:

- The lands to be served must be, either:
  - Inside the City's UGA, or
    - Intended to service essential public facilities, or
    - In rural areas only in limited circumstances when shown necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development, consistent with State law.
  - Extension of services to Regional Plan Partners is to be accomplished in accordance with Regional Water and Sewer Plans and agreements.
  - Land owners requesting water and/or sewer service outside the City limits are to sign a utility extension agreement that addresses the following:
    - Costs of design, engineering, construction, and inspection of extension as paid by the owner;
    - Easements and permits to be secured and obtained by the owner;
    - Dedication of capital facilities to the City;
    - Connection charges paid by the owner;
    - Agreement by the owner not to protest annexation;
    - Connection to both sewer and water services;
    - Waiver of right to protest local improvement district;

- Development of property to conform to City code when developing or redeveloping the property subject to the agreement; and
- Remedies that may be required due to noncompliance with the terms of the agreement.

3.6.4 Financial Policies

The City currently has many financial policies related to the water system, which include user fees, water system development charges, feeds pertaining to extensions, and policies regarding operating fund balances available for the utility system. Chapter 10 discusses the City's financial policies in more detail.

Chapter 4

WATER CONSERVATION PLAN

4.1 Introduction

This chapter presents the City of Shelton's (City's) Conservation and Water Use Efficiency (WUE) Program for the planning period. The City recognizes the important of water use efficiency efforts and is in compliance with annual submissions of its WUE report to the Washington State Department of Health (DOH).

4.2 Conservation Program Development and Implementation

In 2003, the Washington State Legislature passed Engrossed Second Substitute House Bill 1338, more widely known as the Municipal Water Law, to address the increasing demand on the state's water resources. The law established that all municipal water suppliers must use water more efficiently in exchange for water right certainty and flexibility to help meet future demand. In 2007, DOH required that all Class A municipal water systems develop a WUE program to plan for conservation. This program consists of the following five key parts:

- Collect Data.
- Forecast Demand.
- Evaluate WUE measures.
- Calculate distribution system leakage (DSL).
- Implement a WUE program to meet goals.

4.3 Data Collection

A detailed analysis of water production and distribution characteristics is presented in Chapter 2 of this Water System Plan (Plan). The City meets the data collection requirement by collecting source meter data and service meter data for all sources and all service connections.

4.4 Demand Forecasting

Chapter 2 of this Plan presents projections of future demands for the City's water system. The demand forecasts include a low demand scenario where future WUE measures are considered.

4.5 WUE Measures

A detailed analysis of water production and distribution characteristics and projections of future demands is presented in Chapter 2 of this Plan. Based on the findings of this analysis and per the requirements of DOH's Water Use Efficiency Guidebook, the City has adopted three WUE goals, as described below. The Annual WUE Performance Report Form prepared by the City for the year 2019 is included in Appendix 4A.

The number of required goals and measures in a WUE program depends on the water system size and type. For the City, the following goal and measure requirements and definitions apply:

- **Goals:** Benchmarks to measure WUE. At least one supply-side goal (production) and one demand-side goal (consumption) need to be established.
- **Measures:** Specific activities and programs to achieve the goal. Based on the number of connections, the City is required to implement six measures.

4.5.1 WUE Goal 1: Reduce Total Consumption

4.5.1.1 Existing Goal: Reduce Total Consumption by 1 Percent Annually from 2014 to 2020

The first goal that the City identified was to reduce total consumption annually by 1 percent per year from 2014 to 2020. The City has not achieved this goal, where total consumption has increased since 2014. The year 2014 was the lowest water use in the City's modern history (from 1997 to 2017) and subsequent years are typical for annual water use since 2010. So while the goal was not achieved, there is not a clear trend in increasing total consumption.

4.5.1.2 Future Goal: Reduce Total Consumption per Customer by 1 Percent Annually through 2029

The City has revised Goal 1 to reduce total consumption per customer by 1 percent annually for the next 10 years (2029). Table 4.1 summarizes the projected demand if this WUE goal is met. The City anticipates substantial growth in the next 10 years that will result in the total consumption will increase; however, that increase would be less than without the WUE activities.

Table 4.1 Total Demand Projection with WUE Goal 1

2021 Projected Demand (ac-ft)	2031 Projected Demand (ac-ft)	2031 Projected Demand if per Customer Total Consumption is Decreased by 1% Annually (ac-ft)
1,265	1,836	1,500

Note:
Abbreviation: ac-ft – acre-feet.

In order to achieve a decrease in demand compared to what has been projected, the City will implement the following measures:

- **Reclaimed water:** In late 2009, the City completed construction of a satellite water reclamation plant (WRP) that provides Class A reclaimed water. This reclaimed water will be available to the Regional Partners and will offset the demand on the City water system after the connection of the Regional Partners.
- **Efficient fixtures in new development:** Through the building permit process, the City requires compliance with the latest version of United Plumbing Code (UPC). The UPC requires installation of low-flow plumbing fixtures in new and remodel construction projects.
- **Water bills showing consumption history:** The City's billing software allows consumption history information to be included on water bills.
- **Water conservation kits:** The City provides both indoor and outdoor conservation kits to its customers at the Shelton Civic Center. Indoor and outdoor kits are available for customers.

- **Public education:** The City provides information and news articles on its website, which describe both methods to conserve water and the importance of doing so. Information provided on the Web site is provided in Appendix 4B.
- **Rate structure for single-family residential homes that encourages conservation:** Single-family residential water rates are currently billed using an inclined block rate structure which encourages conservation. Single-family residential users pay an increased rate for all water consumed in excess of 600 cubic feet per month.
- **Rate structure for multifamily and duplex residential units that encourages conservation:** Customers in mobile homes, duplexes, and multifamily homes are also billed with a rate structure designed to encourage conservation by charging for consumption, as well as a separate higher consumption rate for irrigation meters.

4.5.2 WUE Goal 2: Maintain Low Distribution System Leakage

4.5.2.1 Existing Goal: Maintain Distribution System Leakage Amount Equal to or Lesser Than 8 Percent for 2014-2020

The second goal that the City adopted, a supply-side conservation goal, is to reduce DSL to 8 percent or less within 6 years. In 2019, 3-year rolling average DSL was calculated to be 11.2 percent.

4.5.2.2 Future Goal: Maintain Distribution System Leakage to Less than or Equal to 8 Percent on a 3-year rolling average through 2029

The City is committed to reducing DSL to less than or equal to 10 percent on a 3-year rolling average through 2029. The City's DSL has increased in recent years. The City has developed a water loss control plan to bring DSL to less than 10 percent. It has implemented several measures to address this increase, including the completion of distribution system repair projects and compliance with the following required measures:

- **Production meters:** All active city wells are metered.
- **Consumption meters:** The City's Municipal Code (SMC) 15.12.040 requires that all individual service connections be metered. The SMC also includes a provision for the City to maintain all water service meters. The City has a program to repair or replace all meters once they become unserviceable. The City will consider DOH recommendation that 10 percent of all service meters should be replaced annual to maintain 10-year life span.

In addition to the measures which have already been implemented, the City plans to complete the following supply-side measures to continue to meet its DSL goal for the next 6-year planning period.

- **Annual leak detection surveys:** The City began performing annual leak detection surveys in 2011. The City completed the most recent leak detection survey in October 2020. Following the survey, the City will systematically address all detected leaks on City mains and alerts customers to detected leaks on private laterals.
- **Complete capital projects to identify and repair leaking transmission mains:** Capital improvement projects, including an implementation schedule, are described in detail in Chapter 6 of this Water System Plan.
- **Customer leak repair education and incentives:** The City website also gives guidance on identifying common household leaks. Additionally, the City provides incentives for

customers who discover and repair leaks in a timely manner to any plumbing on their premises. According to SMC 15.20.40, after the repair is complete, the customer may request a credit for up to 4 months of excess consumption.

4.5.3 WUE Goal 3: Reduce Residential Water Consumption

4.5.3.1 Existing Goal: Reduce Residential Water Consumption by 3 Percent from 2014 to 2020

In total, residential water users account for approximately 60 percent of total water consumption (including single-family, multifamily, and duplex units) with single-family residential users account for 50 percent of consumption. The third WUE goal that the City adopted aims to reduce total annual consumption by residential connections by 3 percent from 2014 to 2020. The City did not achieve its goal through 2017. Similar to total consumption, 2014 was one of the lowest water residential water use years in the City's modern history (from 1997 to 2017) and subsequent years are typical for annual water use since 2010. So while the goal was not achieved, there is not a clear trend in increasing residential water consumption.

4.5.3.2 Future Goal: None

WUE Goal No. 3 Residential Water Use Goal is anticipated to be addressed if the City achieves WUE Goal No. 1 Reduce Total Water Consumption in the future. Therefore, the goal will not be continued.

4.6 Enhanced Conservation Measures

The description of the City's water conservation program in Section 4.6 shows that efforts the City has already made to reduce DSL and educate users about conservation have had a substantial positive impact on water use. In addition, the City has identified a number of WUE measures that will be implemented to achieve aggressive WUE goals.

4.7 Distribution System Leakage

As outlined in Chapter 2, the City's rolling 3-year average DSL has been between 7.3 percent and 13.9 percent in the past five years. WUE Rule requirements establish a ten percent or less DSL standard on a 3-year rolling average. As described in Section 4.3.2, the City's WUE Goal 2 addresses the DSL standard exceedance. Per requirements, the City has developed a water loss control action plan (WLCAP). The goal of the WLCAP will be to:

- Assess data accuracy.
- Assess data collection methods and errors.

4.7.1 Water Loss Control Action Plan

This section summarizes the City's WLCAP. The City's WLCAP includes two main activities:

- The City will conduct a water audit using the America Water Works Association (AWWA) water audit methodology. AWWA published their M36 Manual in 2010 that adopted this methodology to evaluate water loss and provides free tools for Utilities. The water audit is intended to better understand data accuracy and collection methods and errors.
- The City began performing annual leak detection surveys in 2011. The City completed the most recent leak detection survey in October 2020. City staff will repair identified leaks. Customer leak repair education will be conducted for leaks identified on private services.

WLCAP activities are anticipated to be completed by 2022. The City does not anticipate large costs associated with the WLCAP activities. The City intends to fund the activities through its current operations budget. If the Water Audit or Leak Detection Survey results indicate a large capital project is needed, then the City will seek out loans and grants as a means to pay for the infrastructure improvements.

4.8 WUE Program Implementation

4.8.1 Public Notice

A public forum to describe the proposed goals and solicit public comment on the City's WUE goals was held on March 17, 2014. At this meeting, the three WUE goals outlined in Section 4.3 were re-established. No goals were changed since the previous public forum in 2008.

The customer goals must be re-established every six years through the public process. The City plans to hold a public forum in 2020 to establish the future WUE goals described in Section 4.3. This WUE goal setting forum will include a WUE public notice that will be published and state that the water use efficiency goals will be discussed. Following the meeting, a copy of the minutes showing the WUE goal setting was addressed at the public forum will be provided.

4.8.2 WUE Reports

By July 1 every year, WUE reports must be submitted to customers and to DOH, and also made available to the public. The City is in compliance with this requirement and has submitted WUE Reports annually. The City submitted its 2019 WUE Report, which can be found in Appendix 4A, in June 2020.

4.9 Use of Reclaimed Water

The City began operation of its WRP in 2009. Class A reclaimed water from the WRP will initially be used to offset potable water usage at the Washington State Patrol Academy. Additional customers will be connected to the reclaimed water distribution system as potential demands are identified. For example, the County's Public Works maintenance shop near the intersection of Highways 101 and 102 is one potential customer that has been identified.

Chapter 5

SYSTEM ANALYSIS

5.1 Introduction

The City of Shelton's (City's) water distribution system was evaluated for its supply and pumping capacity and reliability, the capacity of its storage facilities, and for adequate pressures and fire flow capacity using the City's updated hydraulic model under 2031 and 2041 conditions using the medium demand project scenario, developed in Chapter 2.

This chapter discusses recommendations to deficiencies identified as part of the system analysis for this Water System Plan Update (Plan). These recommendations form the basis of the City's Capital Improvement Plan (CIP) outlined in Chapter 9.

5.2 System Analysis Planning Scenarios

Consistent with the demand projections in Chapter 2, the system analysis evaluates the City's water system for the 10-year and 20-year planning horizon. The medium demand scenario, which is predicted to most closely match the City's future demands, was used when performing the system analysis. Table 5.1 summarizes the projected average day demands (ADD), and maximum day demands (MDD) for the medium demand scenario.

Table 5.1 Projected Demands for Medium Demand Scenario

	2021	2031	2041
ADD (mgd)	1.32	1.86	2.39
MDD (mgd)	2.81	3.98	5.13

Note:
Abbreviation: mgd – million gallons per day.

5.3 Distribution System and Planned Improvements

The City provided geographic information system (GIS) data on September 20, 2017. This data represents the City's current water system, including all facilities, service area boundaries, land use, and zoning.

The Shelton Hills master-planned development requires a new elevated reservoir in the Upper Mt. View Pressure Zone (PZ) and transmission mains to provide fire flow to be online by the 20-year planning horizon. Figure 5.1 shows the Upper Mt. View transmission mains assumed for the Shelton Hills development. The elevated reservoir and transmission mains are assumed to be online by 2041 for the system analysis. No water distribution specific projects were identified for inclusion in this Plan except the Shelton Hills master-planned development.

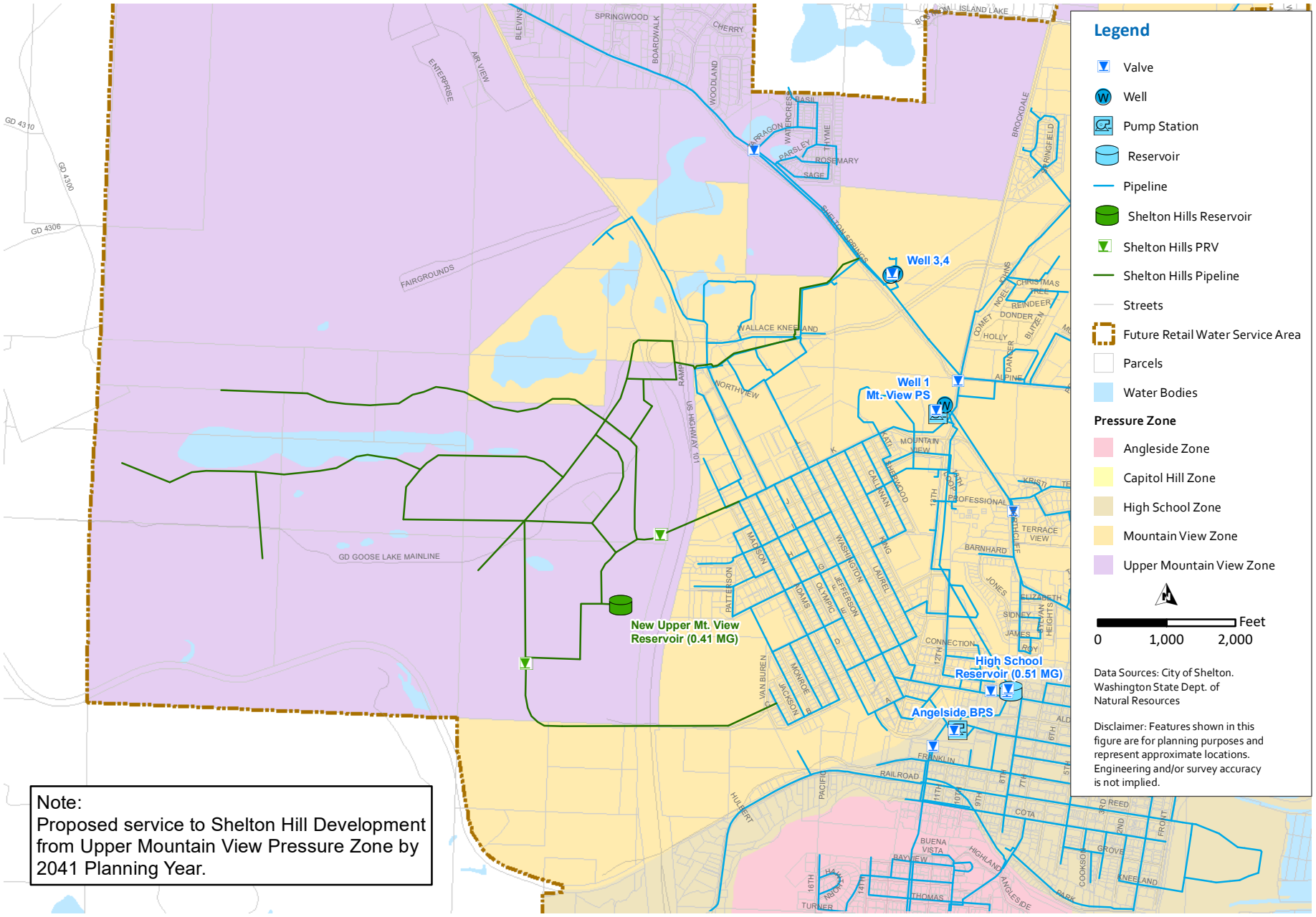


Figure 5.1 Shelton Hills Development by 2041 Planning Year

5.4 Supply Analysis

The capacity and redundancy of the City's supplies were evaluated to determine if the system meets the City's goal defined in Chapter 3.

5.4.1 Criteria and Methodology

The supply analysis was performed in two steps:

- First, a system-wide analysis was used to confirm if the City could meet its goal. As outlined in Chapter 3, the City's goal is that the combined source capacity of the water system can provide maximum day demands for the entire system with the largest source out-of-service.
- Secondly, the supply analysis was performed within each pressure zone to evaluate if each pressure zone has sufficient supply individually.

5.4.2 Existing Sources of Supply

The City's current water supply is provided by three groundwater wells: Well 1, Well 3, and Well 4, as summarized in Chapter 2.

The City has designated Shelton Springs, the source of Shelton Creek, as an emergency water source.

5.4.3 System-Wide Analysis

The City's water rights were summarized in Chapter 3, and Appendix 3B presents copies of available water rights documentation. Based on this information, the City has sufficient water rights to meet the 2041 planning year demands. Additional details can be found in the Water Rights Self-Assessment presented in Appendix 5B.

Additionally, water treatment (chlorination) capacities, or other operational issues are not a limitation to supplying the 2041 planning year demands.

Both total and redundant capacities of the existing supply sources were compared to the projected MDD for the 2041 planning year. Note, the total capacity corresponds to the sum of all active, non-emergency supplies, while the redundant capacity corresponds to the total capacity with the largest source out-of-service.

Table 5.2 presents the results of the system-wide supply analysis for the 2041 planning year for existing supplies.

Table 5.2 Existing Supplies with 2041 Demands

Source	Total Capacity[1] (gpm)	Redundant Capacity[2,3] (gpm)
Well 1	1,500	0
Well 3	1,000	1,000
Well 4	1,200	1,200
Source Total	3,700	2,200
Total 2041 MDD	3,192	3,192
Surplus/(Deficit)	508	(992)

Notes:
(1) Total capacity is the total pumping capacity of the wells.
(2) Redundant capacity is the capacity of the wells with the largest well out-of-service.
(3) Well 1 is the largest well so it was assumed to be out-of-service for the redundant capacity analysis.
Abbreviation: gpm – gallons per minute.

As shown in Table 5.2, the system has sufficient total capacity to provide the projected 2041 MDD but cannot meet the City's goal of providing 2041 MDD with the largest supply out-of-service.

Note, the excess capacity with all supplies online is limited for future growth past 20 years.

DOH recommends that with the largest source out-of-service, the remaining sources can provide a minimum of ADD for the water system. The redundant capacity of the sources (2,200 gpm or 3.17 mgd) can meet the 2041 ADD of 2.15 mgd, as outlined in Table 5.1.

5.4.4 System-Wide Supply Recommendations

To meet future redundant supply needs, it is recommended that the City develop a new well with a capacity of 1,000 gpm. This new well would entail transfer of a portion of the water right for Shelton Springs. The water right for Shelton Springs includes 2,250 gpm primary instantaneous flow rate and 3,620 ac-ft annual volume allowed.

Table 5.3 presents the results of the system-wide supply analysis for the 2041 planning year with the new recommended well.

Table 5.3 Future Supplies with 2040 Demands

Source	Total Capacity[1] (gpm)	Redundant Capacity[2,3] (gpm)
Well 1	1,500	0
Well 3	1,000	1,000
Well 4	1,200	1,200
New Well	1,000	1,000
TOTAL	4,700	3,200
Total 2040 MDD	3,192	3,192
Surplus/(Deficit)	1,508	8

Notes:
(1) Total capacity is the total pumping capacity of the wells.
(2) Redundant capacity is the capacity of the wells with the largest well out-of-service.
(3) Well 1 is the largest well so it was assumed to be out-of-service for the redundant capacity analysis.

As shown in Table 5.3, when a new well with a capacity of 1,000 gpm is added to the distribution system, the City would have sufficient redundant supplies to meet its supply goal.

5.4.5 Supply Analysis by Pressure Zone

It is critical to also evaluate supply capacities in each pressure zone. This analysis ensures that each pressure zone has sufficient total and redundant capacities to serve each pressure zone future demands while meeting the City' supply goal. For this analysis, supply to a pressure zone includes both wells/springs and booster pump stations.

5.4.5.1 All Sources in Service

Figure 5.2 is a simplified schematic showing the available supplies in each of the City's five pressure zone with all sources online. The left-hand schematic shows the analysis results if all sources are online, and there are no supply improvements. As shown in the left-hand schematic, there is no redundancy to serve the Upper Mt. View PZ. The rest of the pressure zones have sufficient supplies if all sources are online.

Based on the lack of redundancy in the Upper Mt. View PZ, an Upper Mt. View Booster Pump Station (BPS) is recommended to provide the Upper Mt. View PZ with sufficient redundant supply for projected 2041 demands.

The right-hand schematic in Figure 5.2 shows the supply by pressure zone with recommended Upper Mt. View BPS. Figure 5.2 (right) illustrates that with the recommended Upper Mt. View BPS, each pressure zone has sufficient supplies to meet the 2041 MDD demands with all sources online.

5.4.5.2 Largest Source Out-of-Service

Figure 5.3 is a simplified schematic showing the available supplies in each of the City's five pressure zone with the largest source system wide (Well 1) out-of-service. The left-hand schematic shows the analysis results with no supply improvements. As shown in the left-hand schematic, with the largest source out-of-service, there is insufficient supply capacity to serve most pressure zones.

Based on the deficiencies with the largest source out-of-service, a New Well is recommended. The New Well is recommended to have a capacity of 1,000 gpm to meet the City's supply goal. If the well is located in the Angleside PZ, the Angleside, High School, Mt. View and Capitol Hill PZs would have sufficient redundant supplies.

The right-hand schematic in Figure 5.3 shows the supply by pressure zone with recommended Upper Mt. View BPS and New Well in the Angleside PZ. Figure 5.3 (right) illustrates that with the recommended improvements, each pressure zone has sufficient supplies to meet the 2041 MDD demands with the largest source out-of-service.

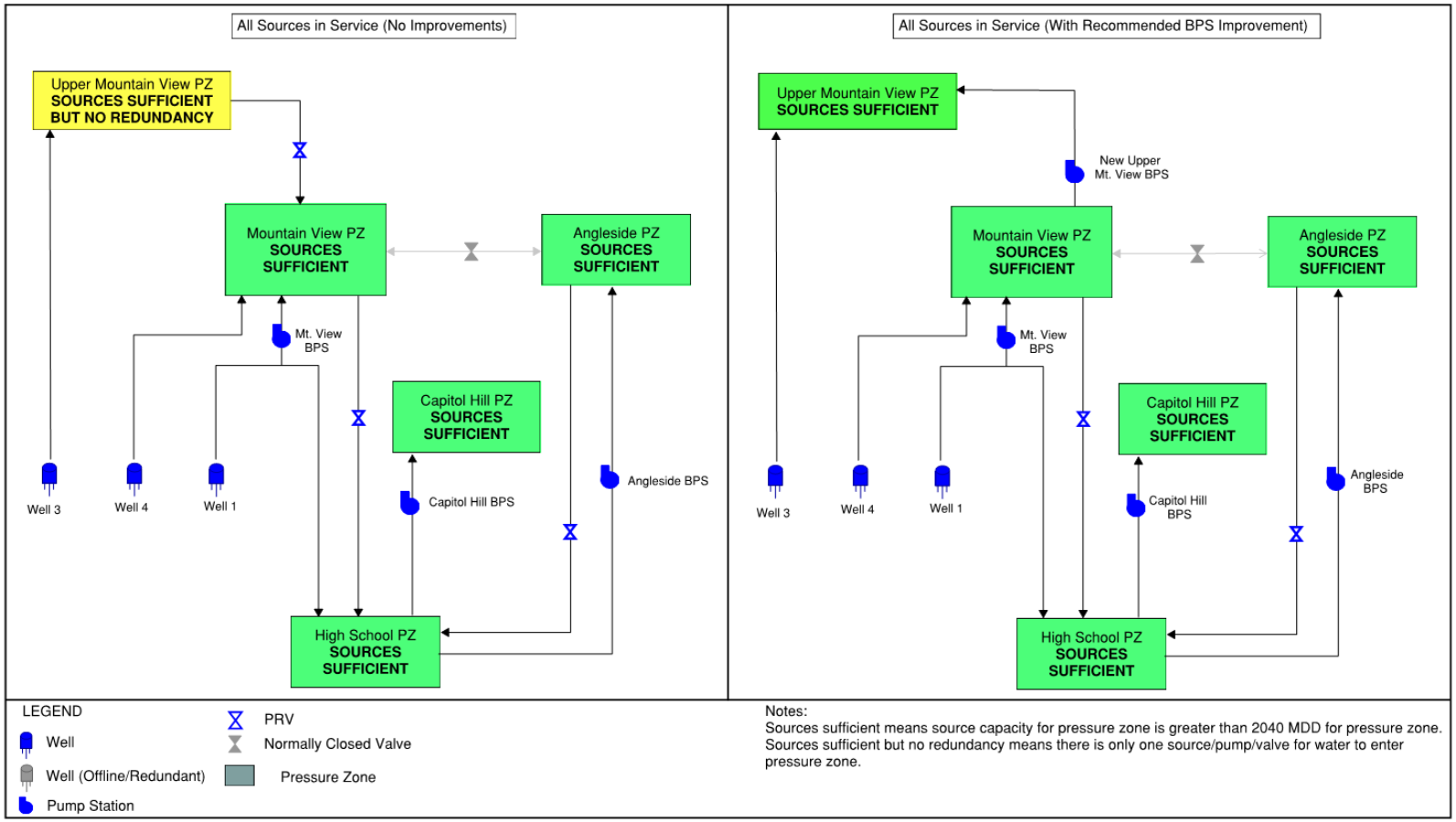


Figure 5.2 Supply by Pressure Zone Analysis (Left: All Sources in Service; Right: All Sources in Service with Recommended Improvement)

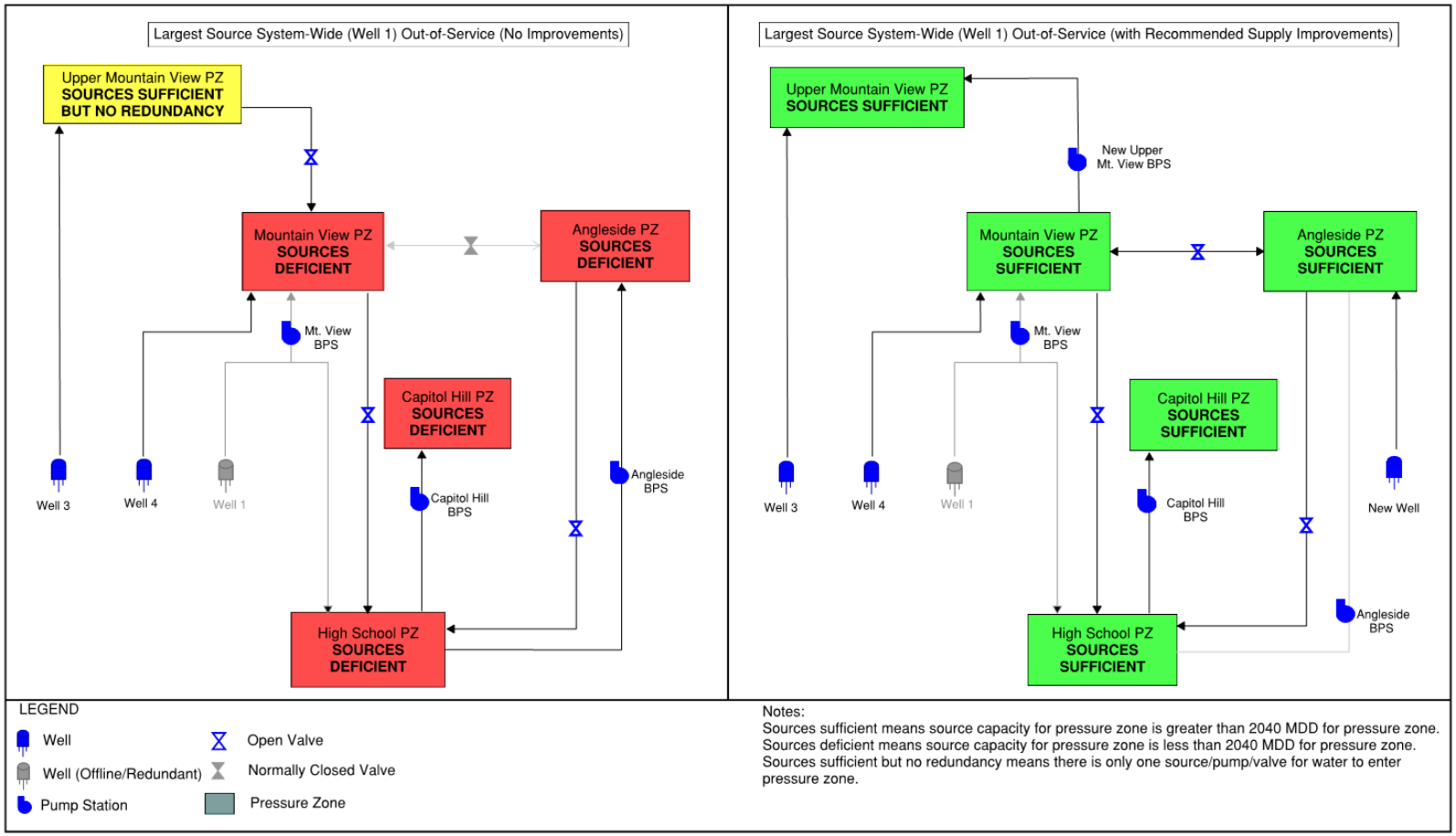


Figure 5.3 Supply by Pressure Zone Analysis (Left: Largest Source Out-of-Service; Right: Largest Source Out-of-Service with Recommended Improvements)

5.4.6 Supply Recommendations Summary

The total capacity of the wells is sufficient to provide system-wide projected 2041 MDD and ADD. However, to meet the City' supply goal of supplying MDD demands with the largest source out-of-service, a new well is recommended to provide redundancy. It is recommended that the City plan to have this new well online by 2035, when projected demands are anticipated to reach 85 percent of the total 2041 MDD.

From the results of the supply analysis by pressure zone, it is recommended to locate the new well in the Angleside PZ. This well would provide redundant capacity to the Angleside, Capitol Hill, High School, and Mt. View PZs when the largest source is out-of-service. Note, the new well would entail transfer of a portion of the water right for Shelton Springs.

A new Upper Mt. View BPS is recommended to provide a redundant source of supply to the Upper Mt. View PZ if Well 3 is offline.

5.5 Storage Analysis

The City's storage requirements are a function of the City's booster pump operation, water demands, supply capacity, and fire flow requirements. The following sections summarize the available storage of the water system, describe the required storage components, and present recommendations to address identified storage deficits.

5.5.1 Storage Components

Water storage volumes are comprised of five components:

- Operational storage.
- Equalizing storage.
- Standby storage (SS).
- Fire suppression storage (FSS).
- Dead storage.

The City policy is to "nest" storage, which means combining standby and fire suppression storage as a single storage band. Figure 5.4 schematically shows these components.

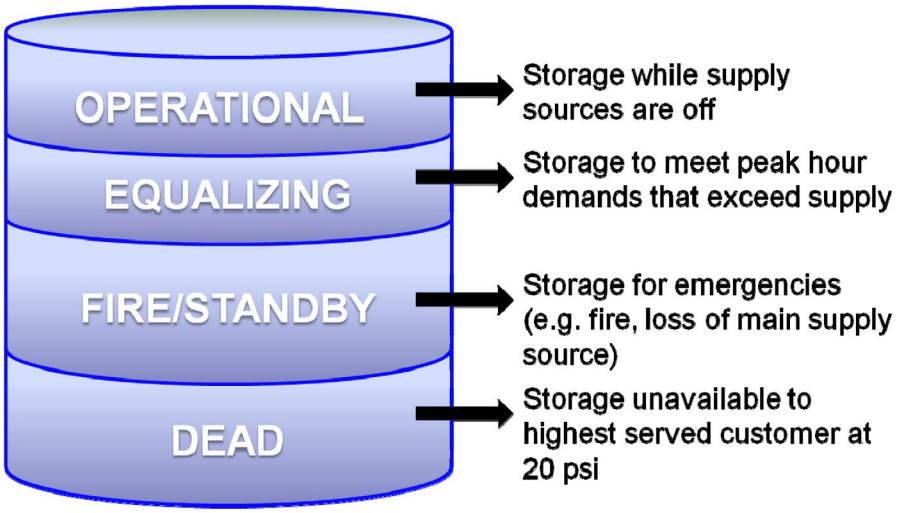


Figure 5.4 Storage Components

5.5.2 Criteria and Methodology

The storage analysis is based on the City's storage criteria and Washington State Department of Health (DOH) storage calculations, which are outlined in Table 5.4. The storage analysis was first performed system-wide to determine if the City has sufficient system-wide storage to meet City criteria using DOH storage calculations. The recommended improvements were then reviewed to confirm that each pressure zone had sufficient storage to meet the City's storage criteria and goals.

The storage analysis was performed for the 2021, 2031, and 2041 planning years.

Table 5.4 Storage Criteria

Storage Component	Equation	Req. Pressure to Highest Customer (psi)
Operational Storage	3 feet of reservoir depth	30
Equalizing Storage	$(Q_{ph}-Q_s)*150$	30
Standby Storage(3) (nested)	(2 days)*[(ADD)(N)-$t_m(Q_s-Q_L)$] OR no less than 200 gallons/ERU	20
Fire Suppression Storage(3) (nested)	Largest Required Fire Flow in Pressure Zone x Duration	20
Dead Storage	Storage below 20 psi to highest customer in pressure zone	n/a

Notes:
(1) Nested storage: largest of the standby or fire suppression storage dictates the required storage at 20 psi.
Abbreviations: Q_{ph} – peak hour demand, in gpm; Q_s – capacity of all sources, in gpm; ERU – equivalent residential unit; N – number of ERUs; t_m – time the remaining sources are pumped on the day when the largest source is not available, in minutes; Q_L – the largest capacity source available to the water system, in gpm; psi – pounds per square inch.

5.5.3 Storage Requirements

The City has five storage reservoirs with a total capacity of 2.25 million gallons (MG), as shown in Table 5.5. The available storage in each pressure zone area is controlled by the elevation of the highest customer in the system and the hydraulic grade level (HGL) required to serve that customer (with a pressure of at least 20 psi in the case of a fire or other emergency, or 30 psi under normal conditions).

For the storage analysis, it was assumed that the Future Shelton Hills Development Reservoir (0.41 MG) is online for the 2041 planning year.

5.5.3.1 Dead Storage

Dead storage is the volume of water at the bottom of the storage reservoir that cannot be used because it's physically too low to be withdrawn from the tank or, if withdrawn from the tank, would result in water pressures in the distribution system that are below the acceptable criteria of 20 psi during a fire or emergency situation. Table 5.5 summarizes the maximum customer elevation within each pressure zone the reservoir serves and the dead storage volume in each reservoir.

5.5.3.2 Operational Storage

Operational storage is the band of storage within each reservoir that is utilized during periods of average demand. It is typically estimated based on the volume of water each reservoir drops

prior to calling on the supply sources and is measured as the volume of water stored between the pump call-off and pump call-on levels. Operational storage was set at three feet based on input from City's operation staff. The operational storage volumes by reservoir are summarized in Table 5.5.

Table 5.5 Existing, Dead, and Operational Storage

Reservoir	Nominal Volume (MG)	Base Elev. (ft)	Overflow Elev. (ft)	Max. Elevation within PZ (ft)	Dead Storage (MG)	Operational Storage (MG)
Mt. View Reservoir	0.61	308	373	277	0.36	0.03
Upper Mt. View Elevated Reservoir	0.41	400	440	350	0.01	0.03
Angleside Reservoir	0.50	300	374	300	0.31	0.02
Capitol Hill Reservoir	0.22	264	334	260	0.13	0.01
High School Reservoir	0.51	153	177	110	0.07	0.06
New Shelton Hills Development Reservoir(1)	0.41	400	440	350	0.01	0.03

Notes:
(1) Reservoir considered online for 2040 storage analysis.
Abbreviation: ft – feet.

5.5.3.3 Equalizing Storage

Equalizing storage is the volume needed to satisfy peak hour demand (PHD). It must be available at 30 psi to all service connections. The City's equalizing storage criteria is determined using the peak hour demand and capacity of all sources as outlined in Table 5.4. Table 5.6 summarizes the required equalizing storage by pressure zone.

Table 5.6 Required Equalizing Storage by Pressure Zone

Pressure Zone	2021	2031	2041
Angleside	0.11	0.13	0.15
Capitol Hill	0.01	0.01	0.02
High School	0.11	0.13	0.14
Mt. View	0.00(1)	0.00(1)	0.00(1)
Upper Mt. View	0.00(1)	0.00(1)	0.02
System-wide	**0.23**	**0.27**	**0.34**

Note:
(1) Peak hour demand in pressure zone is smaller than capacity of all sources in pressure zone so equalizing storage is zero.

5.5.3.4 Nested SS and FSS

Standby storage volumes are required to supply reasonable system demands during a water system emergency, such as a disruption of the water supply caused by equipment failure, power outage, valve failure, or other water system interruptions. The City policy for calculating standby storage is outlined in Table 5.4. Table 5.7 summarizes the required standby storage by pressure zone.

Fire suppression storage is based on the largest fire flow requirement in each pressure zone, as defined by the maximum flow rate and duration. The water system must have fire suppression storage that can meet fire flow requirements while maintaining 20 psi throughout the distribution system. The required maximum fire flow and duration, and corresponding volume for each pressure zone are as follows:

- Angleside PZ: 1,500 gpm for 2 hours.
- Capitol Hill PZ: 750 gpm for 2 hours.
- High School PZ: 2,000 gpm for 3 hours.
- Mt. View PZ: 1,500 gpm for 2 hours.
- Upper Mt. View PZ: 2,000 gpm for 3 hours.

Since City policy is to nest SS and FSS, the larger of the two requirements will determine the required nested SS/FSS storage volume required. Results are summarized in Table 5.7.

Table 5.7 Required Nested Standby Storage/FSS by Pressure Zone

Pressure Zone	FSS (MG)	SS(1) (MG)			Nested SS/FSS (MG)		
		2021	2031	2041	2021	2031	2041
Angleside PZ	0.18	0.33	0.40	0.47	0.33(2)	0.40(2)	0.47(2)
Capitol Hill PZ	0.09	0.03	0.04	0.06	0.09(3)	0.09(3)	0.09(3)
High School PZ	0.36	0.35	0.39	0.44	0.36(3)	0.39(2)	0.44(2)
Mt. View PZ	0.18	0.57	0.76	0.95	0.57(2)	0.76(2)	0.95(2)
Upper Mt. View PZ	0.36	0.01	0.27	0.52	0.36(3)	0.36(3)	0.52(2)
System-wide		--	--	--	**1.71**	**2.00**	**2.47**

Notes:
(1) For all pressure zones, standby storage is governed by the 200 gallons/ERU requirement.
(2) Nested storage is controlled by standby storage requirement.
(3) Nested storage is controlled by FSS requirement.

5.5.4 Storage Analysis

The City's storage was analyzed system-wide to evaluate if the system meets the storage components required by DOH. Table 5.8 presents the results of the system-wide storage evaluation through the 2041 planning year. Table 5.8 compares the system-wide available storage and the total required storage to determine if there is a storage deficiency in the system.

Table 5.8 System-Wide Storage Analysis

Parameter (MG)	2021	2031	2041(1)
Total Storage	2.25	2.25	2.66
Dead Storage	0.88	0.88	0.89
Available Storage (at 20 psi)	1.37	1.37	1.77
Required Storage			
Operational Storage	0.15	0.15	0.18
Equalizing Storage	0.23	0.27	0.34
Standby/FSS	1.71	2.00	2.47
Total Required Storage	**2.09**	**2.42**	**2.99**
Excess or (Deficit)(2)	**(0.72)**	**(1.05)**	**(1.22)**

Notes:
(1) Includes Future Shelton Hills Development Reservoir (0.41 MG nominal capacity).
(2) Nested total storage minus available storage (at 20 psi).

As shown in Table 5.8, the City's distribution system is storage deficient under all planning years, starting in 2021.

5.5.5 Storage Recommendations

The following storage improvement projects are recommended to address storage deficiencies:

- Upper Mt. View Elevated Reservoir in Shelton Hills (0.41 MG) (Developer-funded): This project is already included in Tables 5.10 and 5.11.
- New Mt. View Reservoir near Well 1 (1.0 MG): To address storage deficiencies in the Mt. View PZ, a new 1.0 MG ground reservoir is recommended to be built at the Well 1 site.
- New Angleside Reservoir (1.0 MG): To address storage deficiencies in the Angleside PZ, a new reservoir with a booster pump station in the Angleside PZ is recommended. The reservoir and booster pump station should be co-located with the new well in the Angleside PZ, if possible, to aid in operations. The reservoir will have surplus storage, which can be shared with lower pressure zones with storage deficiencies, such as the High School / Capitol Hill PZ.
- Capitol Hill Reservoir taken offline in year 2040: To address distribution system deficiencies in the Capitol Hill PZ, it is recommended that the Capitol Hill Reservoir be taken out of service to allow customers to be served from a higher grade in the future. A new transmission main is also recommended as part of this project.

Table 5.9 shows the system-wide storage analysis with the recommended improvements.

Table 5.9 System-Wide Storage Analysis with Improvements

Parameter (MG)	2031[1]	2041[2]
Total Storage	4.25	4.44
Dead Storage	0.96	0.84
Available Storage (at 20 psi)	**3.29**	**3.60**
Required Storage		
Operational Storage[3]	0.40	0.42
Equalizing Storage	0.27	0.32
Standby/FSS	2.00	2.38
Total Required Storage	**2.67**	**3.12**
Excess or (Deficit)[4]	**0.62**	**0.48**

Notes:
(1) Includes Future Mt. View Reservoir and Future Angleside Reservoir.
(2) Includes Future Shelton Hills Development Reservoir; Capitol Hill Reservoir is taken offline in year 2040 only.
(3) Includes 0.12 MG operational storage in Future Mt. View Reservoir and 0.13 MG operational storage in Future Angleside Reservoir.
(4) Nested total storage minus available storage (at 20 psi).

As shown in Table 5.9, the total system storage requirements are met with the future storage improvements.

The storage recommendations were evaluated against each pressure zone's requirements to confirm that each zone met the City's criteria in the future. Table 5.10 summarizes the future storage evaluation by pressure zone for the 2040 demand scenario. The results in this table include all planned, future storage projects and recommended improvements.

Table 5.10 Future Storage by Pressure Zone with 2041 Demands

Storage Component (MG)	Angleside PZ + New Reservoir	High School/ Capitol Hill PZ	Mt. View PZ + New Reservoir	Upper Mt. View PZ[1]
Existing Storage	0.50	0.51	0.61	0.82
New Storage	1.0	-	1.0	-
Dead Storage	0.35	0.07	0.40	0.02
Available Storage[1]	1.15	0.44	1.21	0.80
Required Storage[1]	0.77	0.64	1.10	0.60
Storage Surplus/(Deficit)[2]	**0.38**	**(0.20)**	**0.11**	**0.20**

Notes:
(1) Includes Future Shelton Hills Development Reservoir.
(2) At 20 psi.

As shown in Table 5.10, the Angleside PZ will have a surplus storage of 0.38 MG. This surplus can be shared with the High School/Capitol Hill PZs though a pressure reducing valve (PRV) (to the High School PZ) and the Capitol Hill Pump Station (PS). This strategy will allow the High School/Capitol Hill PZ to have sufficient storage available, instead of constructing an additional new reservoir.

5.6 Hydraulic Model Update and Calibration

The City's hydraulic model is the primary tool for evaluating the City's distribution system. The model evaluates how the City's water infrastructure handles future demands and verifies that recommended improvements will eliminate system deficiencies.

As part of this Plan, the City's Innovyze H_20 Map hydraulic model was converted to the GIS-based Innovyze InfoWater hydraulic model. The hydraulic model was then updated and calibrated. Pipes in the hydraulic model were updated based on comments from the City. A marked-up version of the City's water map was provided on November 6, 2018 and is included in Appendix 5A.

5.6.1 Hydraulic Model Calibration Overview and Methodology

Calibration is the process of comparing model simulation results to actual field data and making corrections and adjustments to the model to achieve a loose agreement between model predictions and field measured data. This section describes the hydraulic model calibration process and results.

5.6.1.1 Model Calibration Overview

The purpose of the water system hydraulic model is to estimate, or predict, how the water system will respond under a given set of conditions. One way to test the accuracy of the hydraulic model is to create a set of known conditions in the water system and then compare the results observed in the field against the results of the hydraulic model simulation using the same conditions. Data obtained from the field tests can be used to determine appropriate roughness coefficients for each pipeline, as roughness coefficient can vary with age, pipe material, and construction quality.

5.6.1.2 Hydrant Flow Test Calibration Overview

During ADD conditions, roughness coefficients have a relatively small effect on operation of the distribution system due to low velocities. As flows increase in the system on higher demand days or during fire flows, velocities within pipelines increase leading to higher system head losses.

The hydrant flow tests stress the distribution system by creating a differential between the HGL at the point of hydrant flow and the system HGL at neighboring hydrants. This HGL differential increases the effect of the roughness coefficients on system losses. The model is calibrated by simulating the hydrant flow test and adjusting settings and parameters to match the field measured pressures under similar demand and system boundary conditions. For the monitoring hydrants, the results are considered acceptable if model pressures are within 10 feet of pressure (4.3 psi) or have a 10 percent difference to both the static and residual field data. Model pressures within 5 ft of pressure or 5 percent of the field measurements are considered very good.

The Hazen-Williams roughness coefficient, or C-factor, is a function of pipeline material, diameter, and age. Hydrant test calibration refines the initial estimation of the value of roughness coefficients that best represent current conditions within the City's distribution system. The roughness coefficients should be adjusted only within the accepted roughness coefficient range of $80 < C < 130$.

A single static pressure scenario was created in the model. For each hydrant flow test, a residual pressure scenario was also created in the hydraulic model. Each residual pressure scenario comprises of a different demands dataset in order to produce the model conditions similar to the field conditions during each hydrant flow test.

5.6.1.3 Hydrant Flow Test Data

The City conducted a hydrant flow test program throughout the entire system on June 20, 2017 in order to gather recent and detailed information for calibration of the updated hydraulic model. The City conducted six flow tests in all five of the system's pressure zones. Typically, when conducting hydrant flow tests, there should be a minimum 10 psi pressure drop (static pressure minus residual pressure) to assist in calibration. Values less than this are within the range of error seen in a planning-level model. However, a 10 psi pressure drop is difficult to achieve for the City due to the redundant nature of the City's distribution system.

Figure 5.5 shows the locations of all hydrant flow tests performed in the distribution system. Appendix 5A documents the complete hydrant flow test program and test report and system operating data.

5.6.1.4 Hydrant Flow Test Calibration Results

Calibration to hydrant flow tests is conducted individually in order to specifically represent the conditions of the system at the time of the test. Therefore, numerous simulation are performed during the calibration phase. Adjustments are made to the model between runs to minimize the difference between the model and the field-measured results. Supervisory control and data acquisition (SCADA) data on reservoir levels, pump stations, and inlet flows are available in Appendix 5A.

The results of the calibration as summarized in Table 5.11 and Figure 5.6. Figure 5.6 summarizes all calibration point results on a 1 to 1 plot. Discussion from the hydrant test calibration results are as follows:

- Hydrant Test 1: The residual pressure differences for hydrant MV277 are most likely due to hydrant losses. Recorded pressures increased during flow test for hydrant WV279 so the results should be ignored.
- Hydrant Test 4: Field data matches better if two pumps are running at the Capitol Hill PS. SCADA data indicates only one pump was running during this test.
- Hydrant Test 6: The pressures at hydrant AS021 appear to be a misread as the pressure are impossible for this area. The pressure losses for hydrant AS019 are most likely due to hydrant losses.

As shown in Figure 5.6, the model was calibrated within the +/-10 psi threshold for static calibration results, with the exception of the results for hydrant AS021.

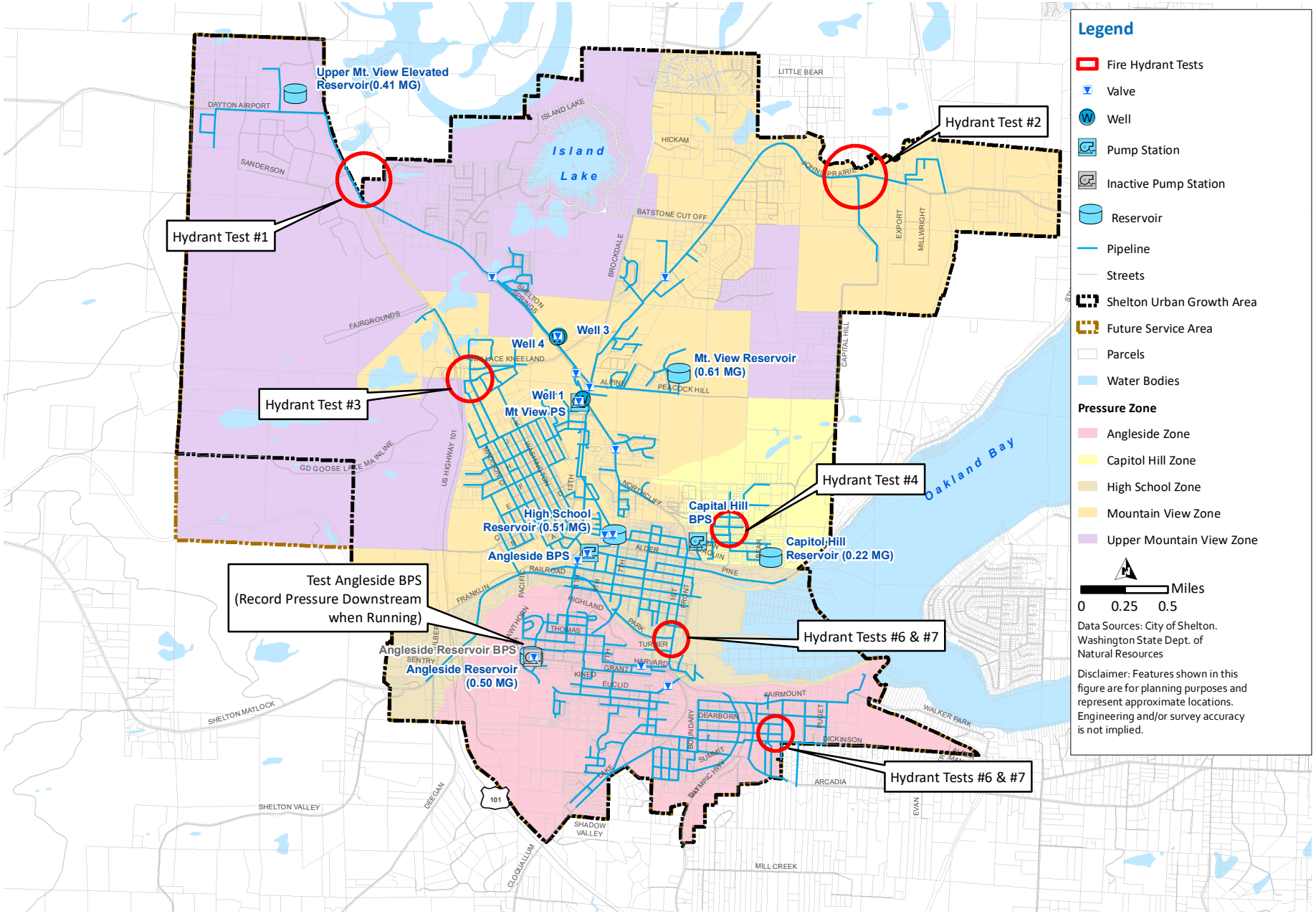


Figure 5.5 Hydrant Flow Test Locations

Table 5.11 Calibration Summary Results

Test No.	Hydrant Number	Model Junction ID	El. (ft)	Flow (gpm)	Field Results		Model Results		Comparison			
					Static Pressure (psi)	Residual Pressure (psi)	Static Pressure (psi)	Residual Pressure (psi)	Static Pressure Diff (psi)	Residual Pressure Diff (psi)	Static Pressure Error (%)	Residual Pressure Error (%)
1	MV278	1659	183.15	1,060	66	50	66	61	0	-11	0%	-21%
	MV277	J72	165.71	0	65	60	68	63	-3	-3	-5%	-5%
	MV279	J74	147.15	0	62	69	64	59	-2	10	-3%	14%
2	MV247	J76	129.86	1,060	64	52	68	60	-4	-8	-6%	-16%
	MV246	J78	117.8	0	63	58	68	60	-5	-2	-8%	-4%
	MV249	J80	154.89	0	65	58	68	60	-3	-2	-4%	-4%
3	MV057	1859	362.9	1,130	58	50	61	55	-3	-5	-6%	-10%
	MV056	J84	349.89	0	58	52	61	55	-3	-3	-5%	-7%
	MV058	J82	357.79	0	59	52	62	56	-3	-4	-4%	-7%
4	CH012	24	137.37	1,060	73	45	75	37	-2	8	-3%	18%
	CH010	J86	146.91	0	72	65	75	47	-3	18	-4%	27%
	CH013	22	138.03	0	79	52	78	40	1	12	1%	24%
5	DT102	J88	160.19	1,060	60	42	60	46	0	-4	0%	-8%
	DT100	694	146.24	0	68	60	68	58	0	2	0%	3%
	DT105	J90	130.62	0	58	42	59	45	-1	-3	-2%	-6%
6	AS020	J92	179.66	920	39	30	38	35	1	-5	3%	-17%
	AS019	472	170.83	0	32	32	27	26	5	6	15%	20%
	AS021	864	159.59	0	61	60	32	30	29	30	47%	50%

Note:
Abbreviations: ID – identification; El – elevation.

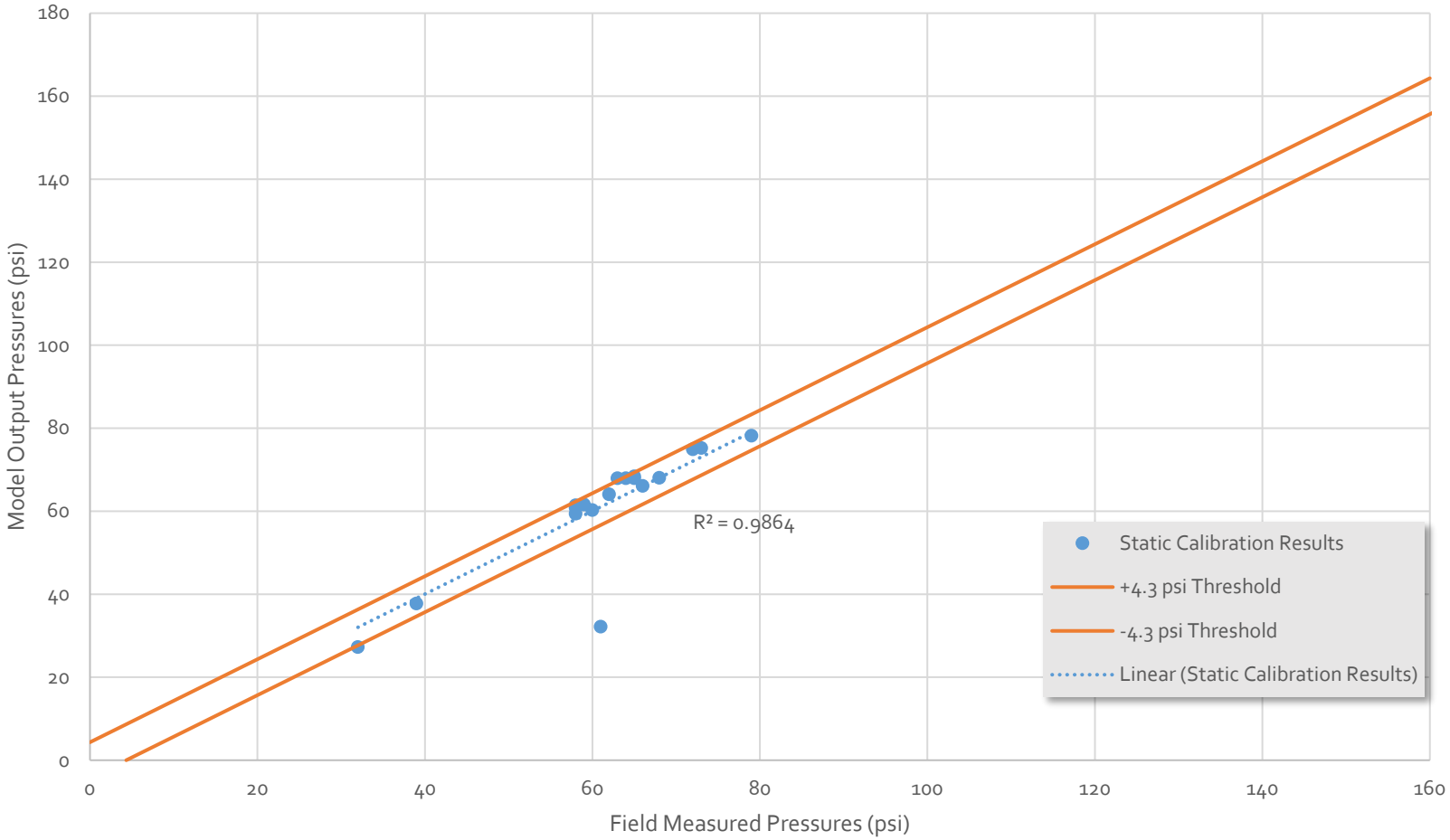


Figure 5.6 Static Calibration Results

5.6.2 Model Recommendations

The calibrated hydraulic model provides an excellent tool for evaluating the distribution system. The model should be updated periodically to maintain reasonable prediction of water system conditions. An update would include incorporating main replacements and improvements, adding new service areas, incorporating operational changes to the reservoirs and pumps, adjusting PRV settings, and adjusting demands to match demand projections and land use. As part of this periodic update, hydrant flow tests should be conducted to verify the accuracy of the model and aid in monitoring system changes. Additionally, fire flow tests should be conducted to validate model results for new developments in areas with low pressures or high head loss.

5.7 Distribution System Analysis

The hydraulic model was used to evaluate the distribution system under future demand conditions. The distribution system was evaluated against four performance criteria. Areas not meeting the criteria are considered deficient and system improvements are identified to achieve the required level or service.

5.7.1 Key Hydraulic Model Scenarios

The hydraulic model scenarios that were used to identify distribution system deficiencies include:

- 2021 ADD: used to determine maximum pressures at junctions with demands.
- 2041 MDD: used to determine minimum pressures at junctions with demands and maximum velocities in pipes.
- 2041 MDD + Fire Flow: used to determine fire flow deficiencies at junctions with fire flow requirements.

The demand allocation in the hydraulic model was based on projected demands summarized in Section 2.5. Diurnal demand patterns used in the hydraulic model can be found in Appendix 5A.

5.7.2 Model Assumptions for Improvement Projects

The following improvement projects and developments were assumed to be online by the 2041 planning year and were included in the hydraulic model 2041 scenarios (Figures 5.8 through Figure 5.12 show these improvement projects as future infrastructure in orange):

- Mt. View Ground Storage Tank.
- Upper Mt. View BPS.
- The entire Shelton Hills Development, including the Reservoir and PRVs.

It should be noted that the recommended new well and new Angleside Reservoir were not included in the hydraulic model because the potential locations are not currently known. Also, since the Angleside Reservoir PS is only able to operate manually, it is assumed to be offline for all model scenarios.

5.7.3 Evaluation Criteria

Chapter 2 discussed system policies and criteria in detail. Key parameters evaluated with the hydraulic model include the following:

- High ADD Pressure: identify pressures greater than 80 psi during ADD to recommend potential needs for individual PRVs to customers.
- Low PHD Pressures: minimum allowed pressure is 30 psi during PHD.
- High Velocity under PHD Conditions: identify pipes with maximum velocity greater than 8 feet per second (ft/s) (Likely pipe to upsize if future deficiencies identified in the area).
- Available fire flow: residual pressure at hydrants during MDD plus fire flow must remain above 20 psi.

5.7.4 Analysis

This section will summarize the deficiencies identified during the distribution system analysis.

5.7.4.1 Maximum pressures during ADD

The model was run in extended period simulation (EPS) during ADD conditions to evaluate the maximum pressures in the system for the near-term and long-term planning years. This approach allows the sources, pumps, and reservoirs to operate as their SCADA and controls are set.

Using the criteria presented in Section 5.7.3, the hydraulic model provides maximum pressures under ADD conditions. Figure 5.7 shows the nodes with maximum pressures outside of the planning criteria for 2021, which represents the worst-case scenario for high pressures. Figure 5.7 is shown to aid the City in operations and future development. No recommended improvements are made based on high system pressures.

5.7.4.2 Minimum Pressures during PHD

The model was run in EPS during MDD conditions to evaluate the minimum pressures in the system for the near-term and long-term planning years.

Using the criteria presented in Section 5.7.3, the hydraulic model provides minimum pressures under MDD conditions. Figure 5.8 shows the nodes with minimum pressures lower than 30 psi during PHD in 2041, which represents the worst-case scenario for low pressures (i.e. the most headloss in the distribution system). The figure also shows minimum pressures between 30 psi and 40 psi for reference.

5.7.4.3 Maximum Velocity during MDD

The City's goal is to maintain velocities under 8 ft/s in distribution pipes during PHD. Figure 5.9 shows that no pipes exceed the velocity criteria in 2041, which represents the worst-case scenario for velocities. The figure shows velocities between 4 ft/s and 8 ft/s for reference. There are no recommended improvements based on velocity deficiencies.

5.7.4.4 Residual Pressures during MDD + FF

Fire flow (FF) demand is the quantity of water required in general by each customer type for firefighting as defined by City staff in coordination with the Fire Marshall. During development review, the Fire Marshall provides a specific fire flow that may differ from the general amount. If greater than planned, then the developer must work with the City to provide sufficient fire flow.

Firefighting often places the largest demands on a water system because a high volume of water must be supplied over a short time period. The required fire flow and duration of the fire flow in the hydraulic model assigned according to land use designation. During any fire event, the minimum pressure must be greater than 20 psi throughout the distribution system per the Washington Administrative Code (WAC). Figure 5.10 shows the figure flow requirements at junctions throughout the system according to land use. Only junctions near hydrants were assigned a fire flow.

Fire flows are typically the largest flows a system experiences and often a major factor in pipe sizing and network configurations. The model was used to perform a general system-wide fire analysis for all system nodes with service connections for 20 psi in both 2031 and 2041. Figure 5.11 shows nodes that do not meet the 20 psi requirement under fire flow conditions in the 2041 planning year, which represents the worst-case scenario for fire flow conditions.

The City can use the updated and calibrated hydraulic model to evaluate residual pressures at future developments to determine if improvements are needed before development begins. The City can also use Figure 5.11 to evaluate the location of a future development to determine if the location is within an area with low residual pressures. If the proposed development is in an area with low residual pressures, distribution system improvements may be necessary before development occurs.

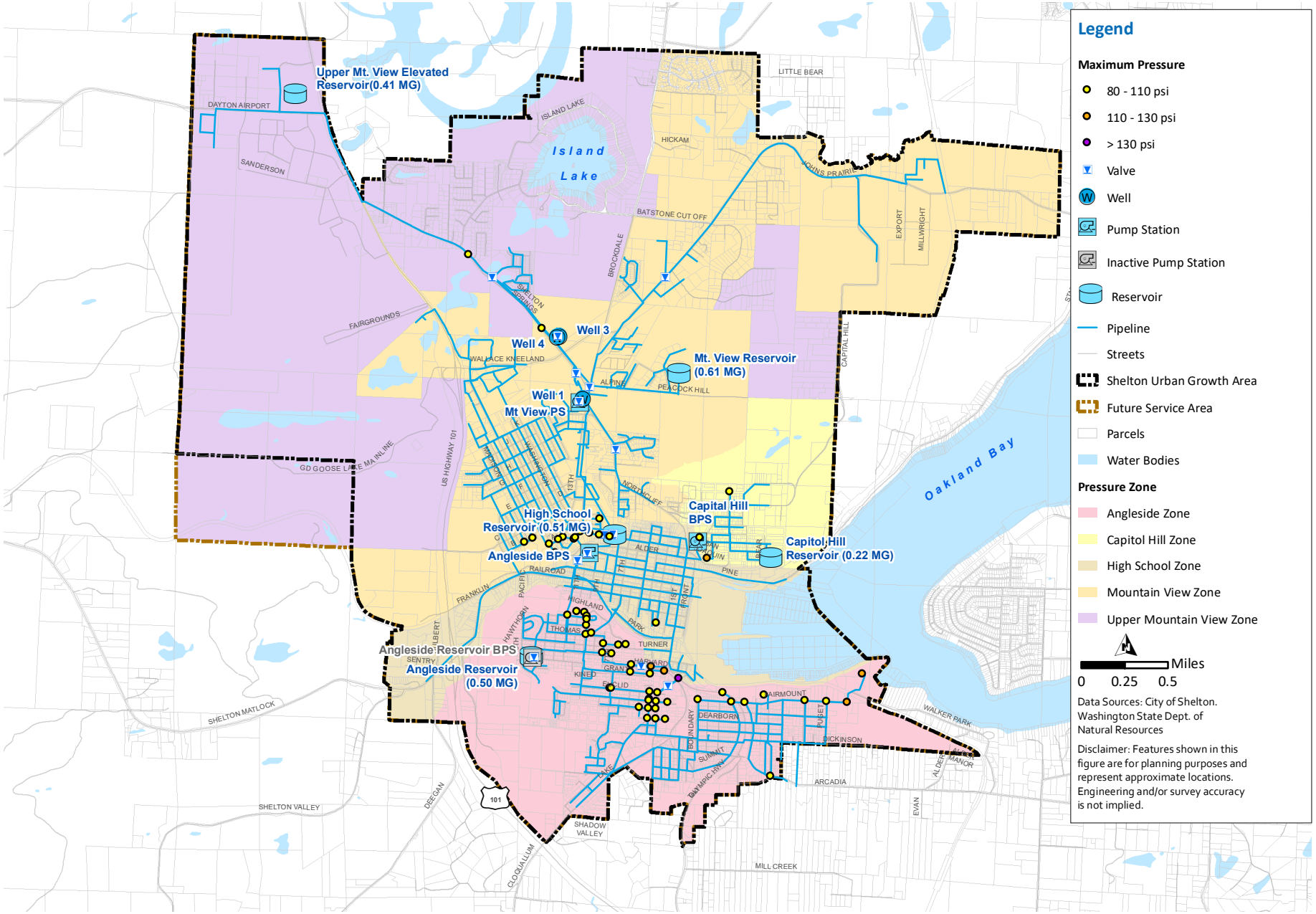


Figure 5.7 Maximum Pressure during 2021 ADD Conditions

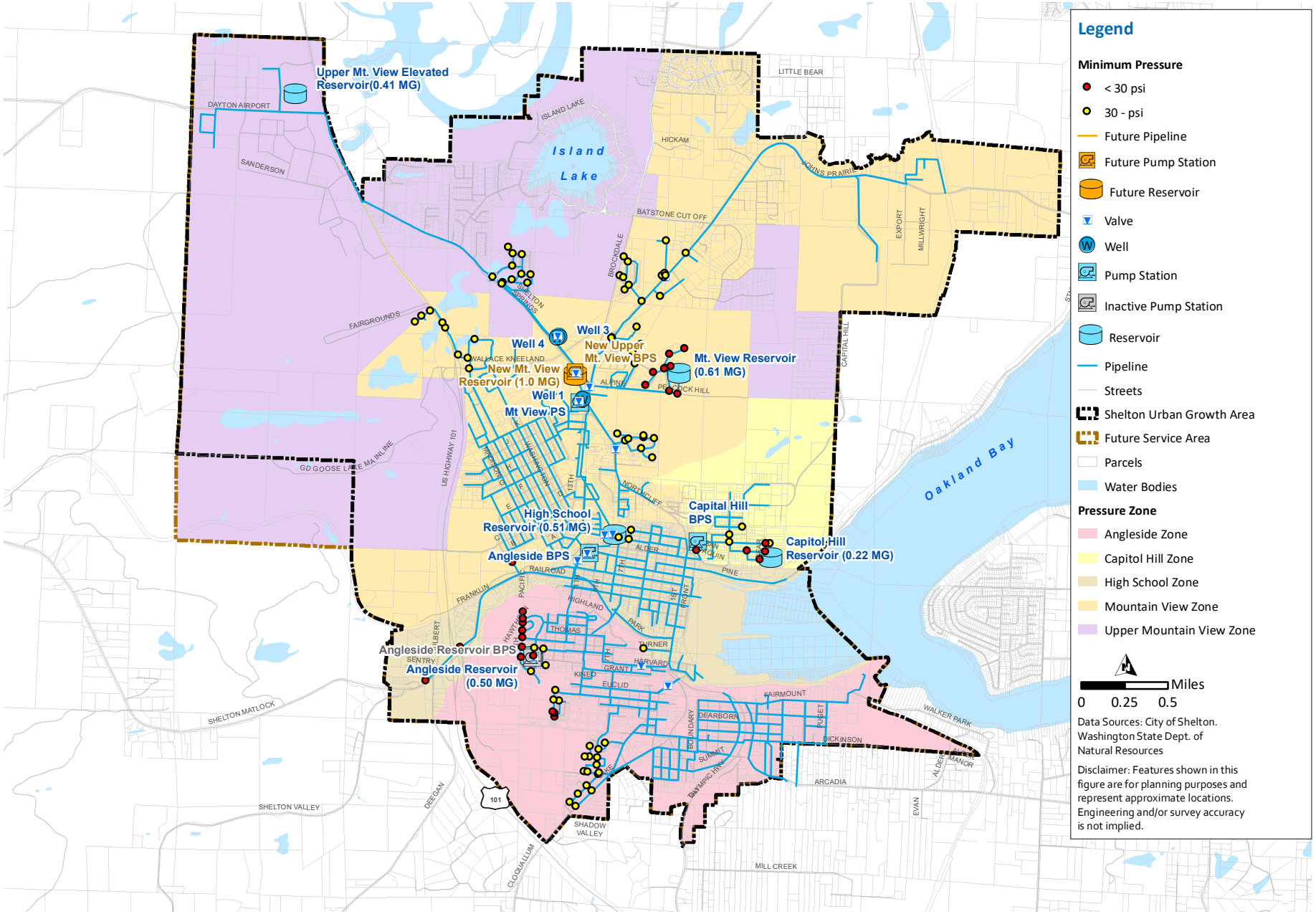


Figure 5.8 Minimum Pressure during 2041 PHD Conditions

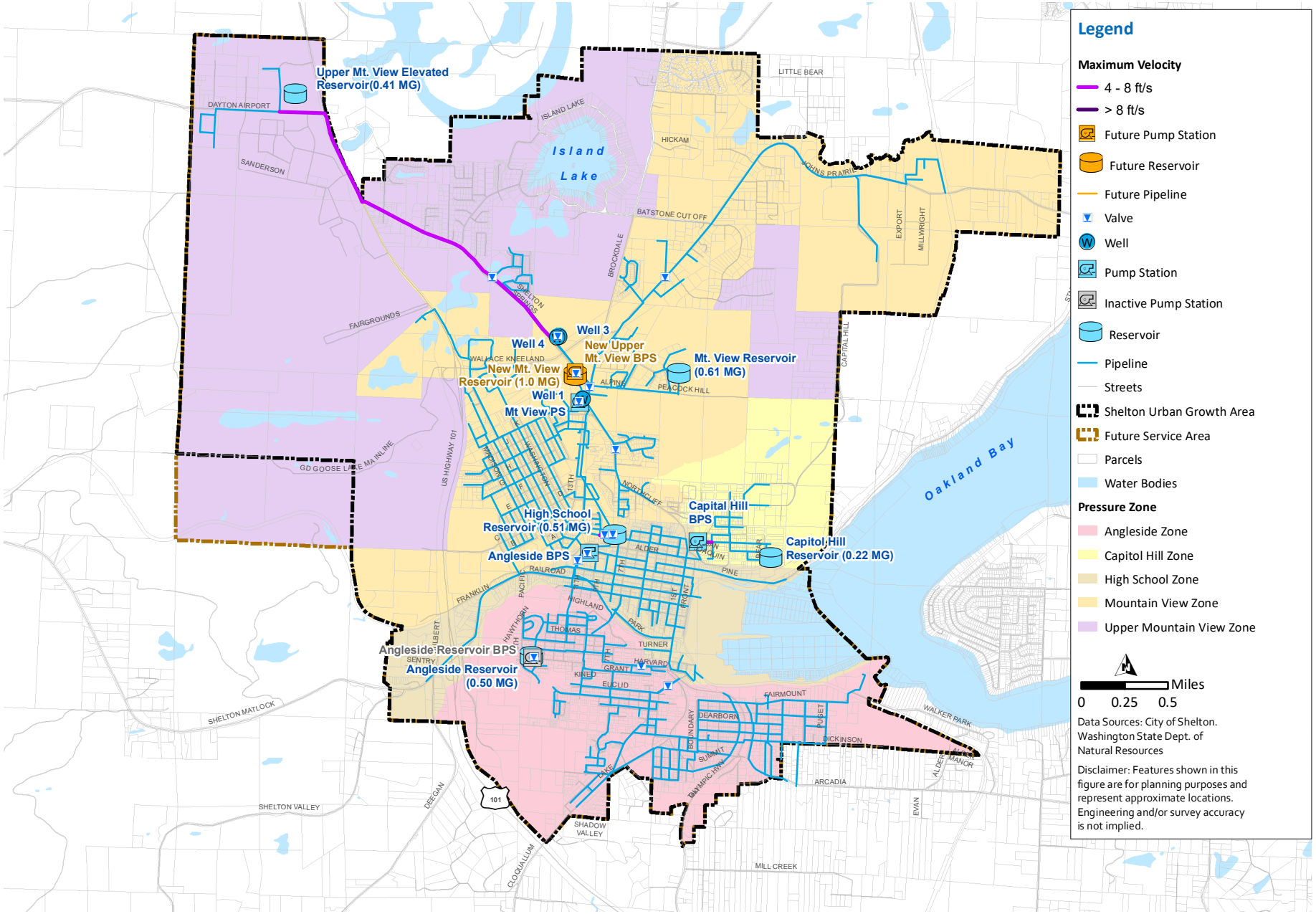
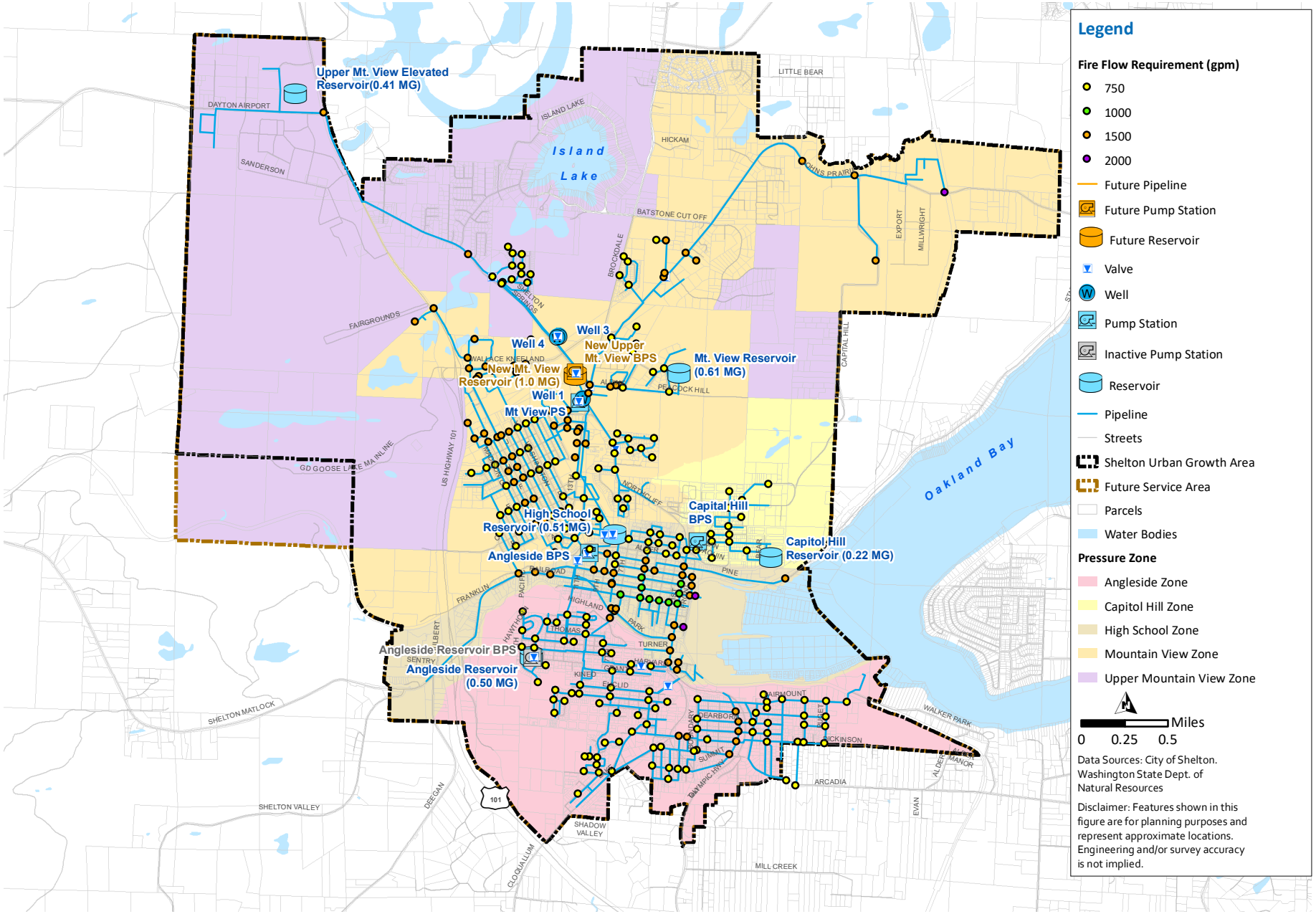


Figure 5.9 Maximum Velocity during 2041 MDD Conditions



Legend

Fire Flow Requirement (gpm)

- 750
- 1000
- 1500
- 2000

- Future Pipeline
- Future Pump Station
- Future Reservoir
- Valve
- Well
- Pump Station
- Inactive Pump Station
- Reservoir
- Pipeline
- Streets
- Shelton Urban Growth Area
- Future Service Area
- Parcels
- Water Bodies

Pressure Zone

- Angleside Zone
- Capitol Hill Zone
- High School Zone
- Mountain View Zone
- Upper Mountain View Zone

Miles
0 0.25 0.5

Data Sources: City of Shelton. Washington State Dept. of Natural Resources

Disclaimer: Features shown in this figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy is not implied.

Figure 5.10 Fire Flow Requirements

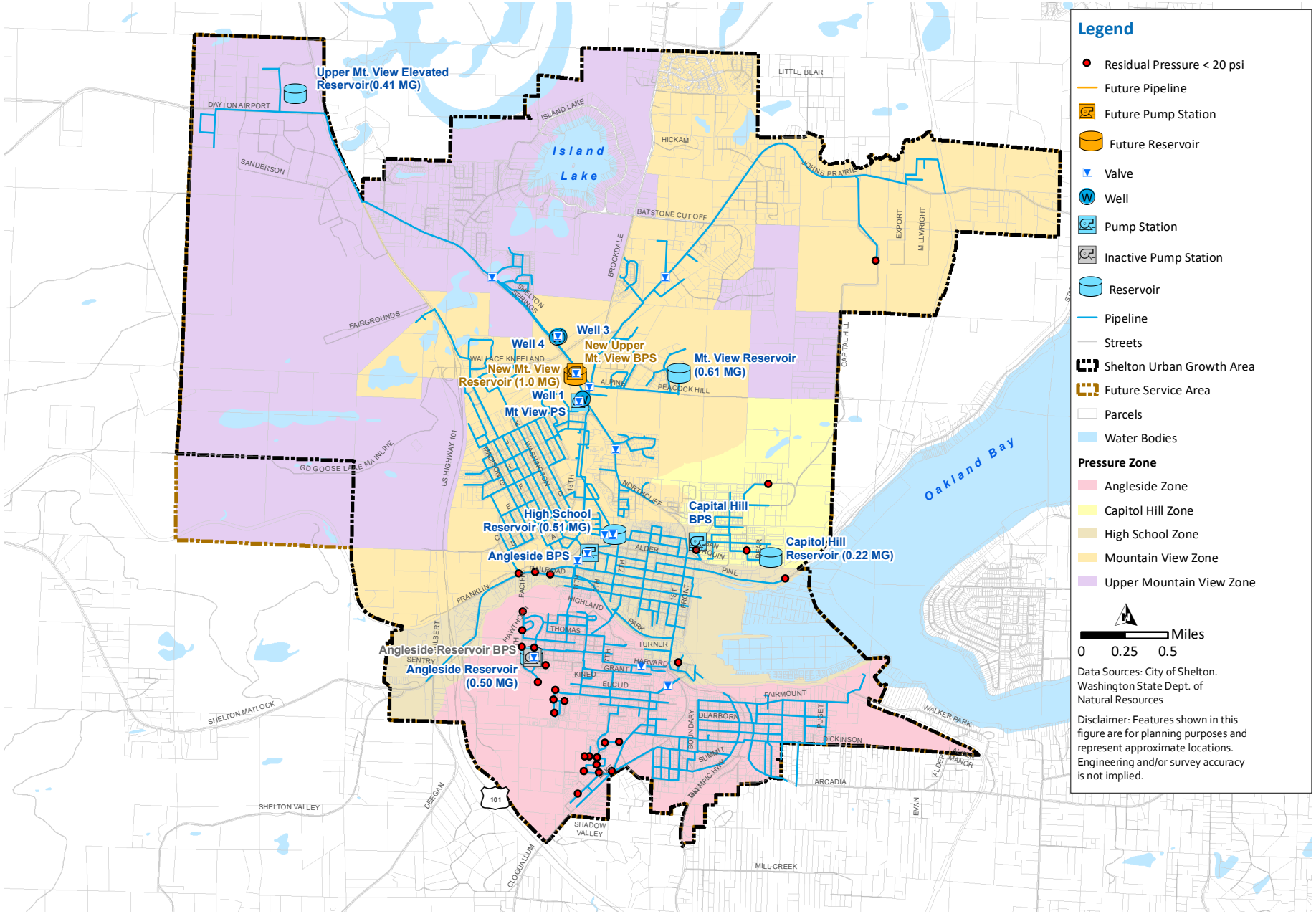


Figure 5.11 Residual Pressure during 2041 MDD + FF Conditions

5.7.5 Recommended Improvements

This section summarizes the recommended improvements based on deficiencies identified during the distribution system analysis.

5.7.5.1 Recommended Improvements for Low Pressure Deficiencies

There are customers in the Capitol Hill, Mt. View, and Angleside PZs that have low pressures during PHDs, as seen in Figure 5.8. The low pressures are largely due to high elevations, with limited effects from distribution system head losses. Therefore, to increase pressures, improvement projects in these three pressure zones are recommended.

Figure 5.12 shows the areas that have high customer elevation. It is recommended that the City does not add new customers to the water system in the areas shown in Figure 5.12, without addressing the low pressures.

The two recommended pressure zone projects to address low pressures in the Mt. View and Angleside PZs during peak hour demands include the following:

- Mt. View PZ Pressure Improvements: This project is to rezone a section within the Mt. View PZ to the Upper Mt. View PZ to provide peak hour demand pressures greater than 30 psi to all customers. The transmission of the Upper Mt. View PZ supply will require 3000 linear feet (LF) of 12-inch pipe from well 3/4 site, south on N Shelton Springs Rd to N 13th St, and east on W Alpine Way to Alpine Dr.
- Angleside PZ Pressure Improvements: This project is to add small jockey pumps to two areas of the pressure zone with high elevations to provide domestic flows at pressure greater than 30 psi during peak hour demands. Fire flows deficiencies for these two areas will be addressed in Section 5.7.5.2. The two areas identified are: Vista View, and S 16th St/Eaglewood Way.

To address low pressures in the Capitol Hill PZ, it is recommended that the Capitol Hill PZ be converted to a closed pressure zone. To convert the existing open pressure zone to a closed pressure zone, the Capitol Hill Reservoir would be decommissioned by 2041 and a new Capitol Hill BPS would supply customers at a higher hydraulic grade. This project requires increasing the BPS capacity to meet the peak hour demands and fire flows of approximately 1,750 gpm. This project will also address storage deficiencies in the Capitol Hill PZ identified in Section 5.5.4. The High School PZ will feed this new closed pressure zone and will provide FSS via the surplus storage in Angleside PZ as outlined in Section 5.5.5.

5.7.5.2 Recommended Improvements for Fire Flow Deficiencies

As seen in Figure 5.11, the fire flow deficiencies in the 2041 planning year mostly correspond to areas with low PHD pressures or areas on dead end pipes. First, it is recommended that the City work with the Fire Department to identify ways to provide fire flow in the interim until any recommended improvements are constructed. This may require the City to paint, move, and hood/remove fire hydrants as agreed with the Fire Department.

It should be noted that a field investigation by the City identified some hydrants that were not commonly tested due to lack of stormwater control, therefore, stormwater improvements may also assist with long-term maintenance of hydrants.

The following projects are recommended to address the figure flow deficiencies identified in Figure 5.11:

- W Railroad Ave Pipe Upsize: Upsize approximately 1,700 ft of 8-inch pipe to 12-inch pipe on W Railroad Ave in the High School PZ. This project is recommended to address fire flow deficiencies that are due to 1,500 gpm fire flow demands on long, dead end pipe.
- E Pine St Pipe Upsize: Upsize approximately 3,200 ft of 6-inch pipe to 12-inch pipe on E Pine St in the High School PZ. This project is recommended to address fire flow deficiencies that are due to 1,500 gpm fire flow demand on long, small diameter, dead end pipe.
- Alleghany St Pipe Upsize: Upsize approximately 230 ft of 6-inch pipe to 8-inch pipe on Alleghany St in the High School PZ. This project is recommended to address fire flow deficiencies that are due to 1,500 gpm fire flow demand on small diameter, dead end pipe.
- Capitol Hill Hydrant Lateral Relocation: Move hydrant lateral to address fire flow deficiency at pressure zone boundary between the High School and Capitol Hill PZ. The deficiency is due to 750 gpm fire flow demand at hydrant with high elevation in the High School PZ.
- S 16th St Pipe Project: Upsize/Install approximately 800 ft of 8-inch pipe on S 16th St from May Ave north to end of street in the Angleside PZ. This project is recommended to address 750 gpm fire flow demand at hydrants with high elevations in the Angleside PZ.

To address the fire flow deficiencies in the Angleside PZ, an Angleside Reservoir PS Control Study and Improvements project is recommended. Higher pressures are needed during fire flow to mitigate deficiencies in high elevation areas of the Angleside PZ. Currently, the Angleside Reservoir PS is run manually. The recommended project is to construct control improvements to allow automated use of the City's Angleside Reservoir PS. The Reservoir PS may not automatically start for low flow hydrant if available flow is below control trigger. These hydrants will need to be addressed separately with the Fire Department.

This project will require new control valves, variable frequency drives (VFDs), and site piping at the Angleside Reservoir PS site, and the Angleside BPS as needed. Figure 5.13 shows a schematic of the recommended infrastructure. There are two recommended, automated control modes: high reservoir outflow (fire flow) and low reservoir level (emergency supply). The simplified high reservoir outflow controls are as follows:

- Normal Conditions: During normal conditions, the recirculation valve is passively closed, the inflow control valve is off, the Reservoir PS is off, and the isolation valve is open.
- Switching from Normal Conditions to Fire Flow Conditions: High flow is detected at flow meter, the Reservoir PS turns on (operates on downstream pressure), and the isolation valve closes.
- During Fire Flow Conditions: If high pressure at Angleside BPS is detected, the recirculation valve opens.
- Switching from Fire Flow Conditions to Fill Conditions: If the Reservoir PS produces less flow (PS operates on downstream pressure), normal flow is detected, the Reservoir PS turns off, and the Angleside BPS meets demand.

- Reservoir Fill Conditions: The inlet valve opens to fill the Reservoir, the Angleside BPS meets demand and fills the Reservoir.
- Reservoir Fill to Normal Conditions: The inlet valve closes, and the isolation valve opens when an acceptable level is reached in the Reservoir.

During low reservoir levels without high flows (emergency conditions), the simplified PS controls are as follows: a low level is detected in the Reservoirs, the inlet valve closes and the Reservoir PS turns on. The Reservoir PS shut down process is the same as with the fire flow controls.

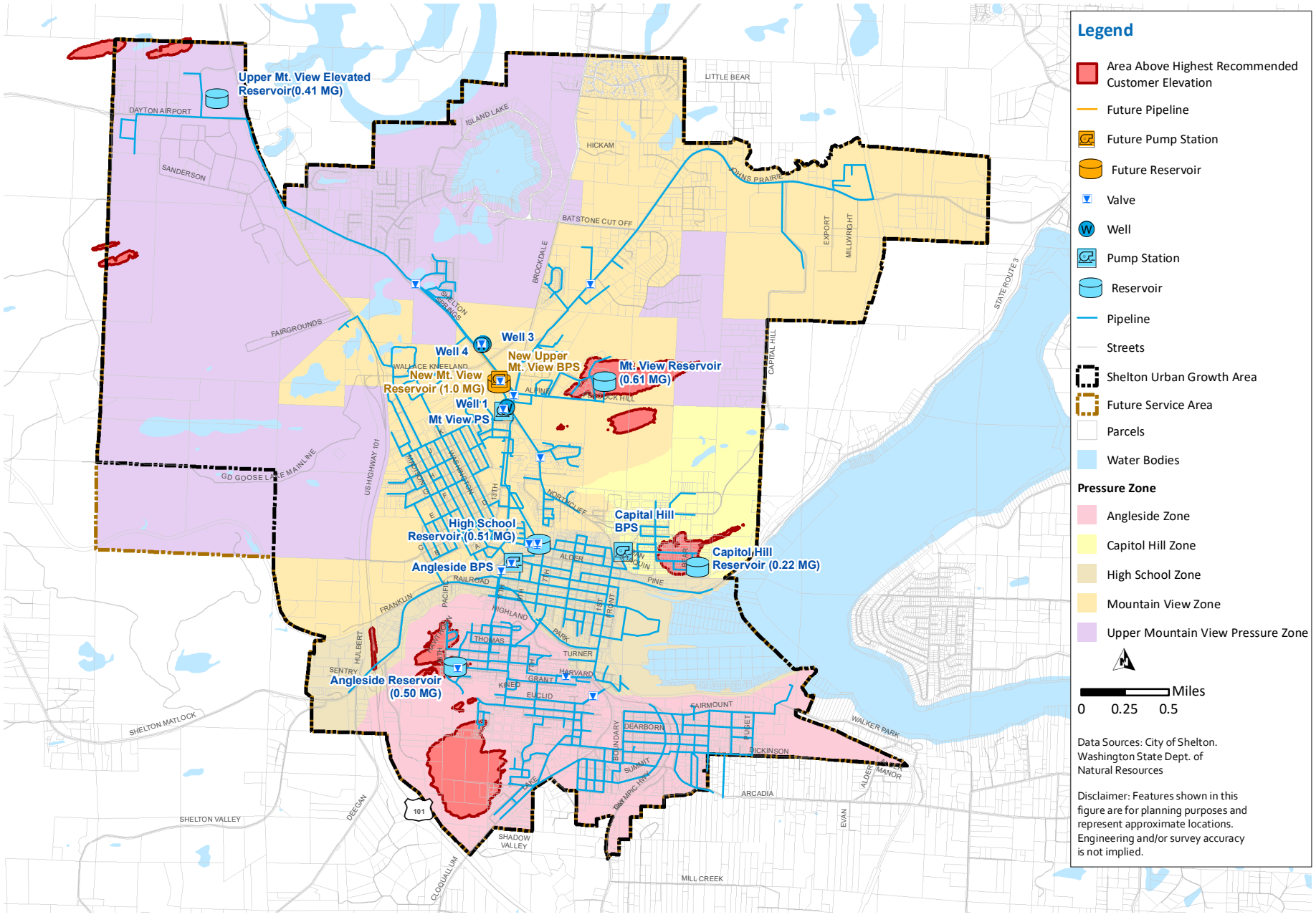


Figure 5.12 Areas above Highest Recommended Customer Elevation

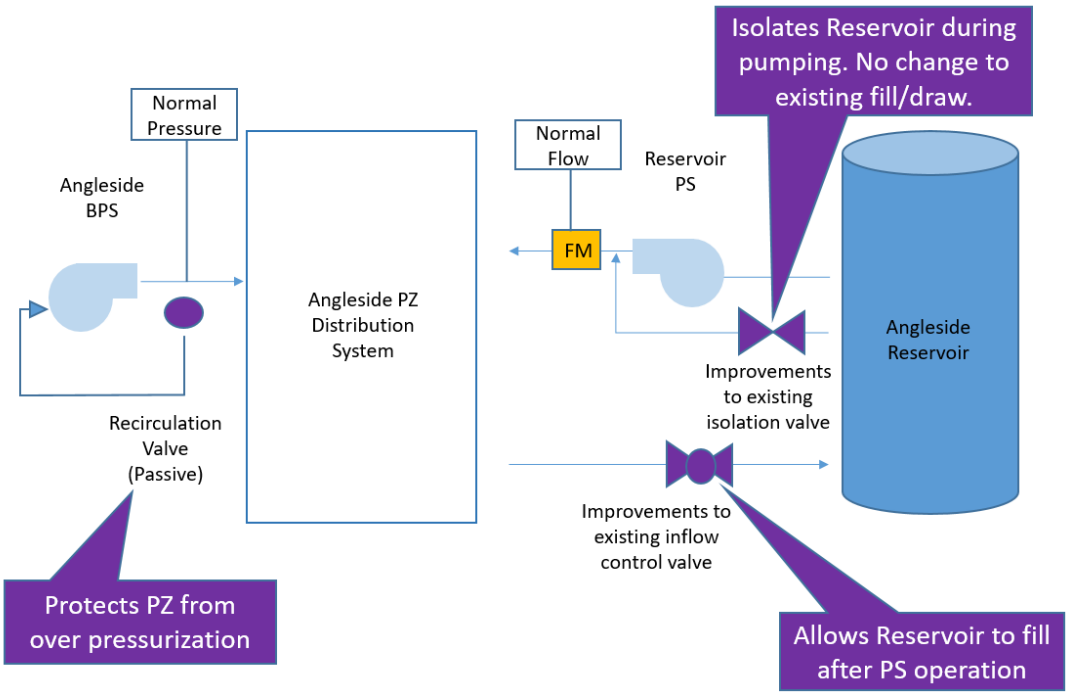


Figure 5.13 Angleside Reservoir PS Control Improvements Diagram

5.8 Limiting Capacity Analysis

The limiting capacity of the City's physical water system was determined for the 2041 planning year with the assumption that all recommended improvement projects will be online. The limiting capacity analysis uses the methodology described in DOH Water System Design Manual (2009) Worksheet 6-1 and Table 6-1. The physical capacity of the water system components is summarized in Table 5.12. The table includes each limiting component, the number of ERUs that can served in 2041 by the component, and the equation or rationale for in calculating the ERU. As shown in Table 5.12, the City has sufficient physical capacity to meet the 2041, with the MDD source capacity being the most limiting.

5.8.1 Data sources

The limiting capacity considers ERUs for both MDD and ADD, which were calculated based on the demand projections in Chapter 2 - Water Requirements. The ADD ERU Value is 158 gallons per day per Equivalent Residential Unit (gpd/ERU) and the MDD ERU value is 343 gpd/ERU. Supply and Storage capacity is based on the information provided in this Chapter.

5.8.2 Source Limiting Capacity

The City's physical source capacity criteria were used to evaluate its limiting capacity in 2041. The physical capacity of the ADD supply sources was calculated by dividing the pumping source capacity by the ADD ERU value. Similarly, the physical capacity of the MDD supply sources were calculated by dividing the firm source capacity by the MDD ERU value. These values represent the amount of ERUs that can be served by the City's supplies. The MDD supply sources had the lowest limiting capacity value making it the most limiting physical component. However, neither supply components were found to be limiting with all recommended improvement projects online.

5.8.3 Treatment Limiting Capacity

The treatment capacity of the water system is not considered limiting because the City has designed the treatment capacity with sufficient capacity to serve its sources. The City treats groundwater for disinfection, corrosion control, and aesthetics.

5.8.4 Storage Limiting Capacity

The physical capacity of the City's storage was calculated for both equalizing storage and standby storage. The capacity of equalizing storage was based on the City's calculation of equalizing storage, which uses DOH Equation 6-6. Similarly, the limiting capacity of the City's standby storage was based on the DOH recommendation of 200 gallons per ERU. Neither storage components were found to be limiting.

5.8.5 Distribution / Transmission Limiting Capacity

The distribution water system component is not considered to be limiting because the City has planned projects to address all identified deficiencies and design standards confirm all new development meets City standards. Similarly, the transmission water system component is not considered to be limiting because it is assumed to be addressed as part of source and pumping capacity.

Table 5.12 2040 Limiting Capacity

Water System Component	Value (ERUs)	Equation / Notes
Sources (ADD)	46,030	$N = \frac{Reliable\ Source\ Capacity}{ADD\ ERU\ value}$ where Reliable source capacity = capacity of sources with backup power or generators
Sources (MDD)	14,910	$N = \frac{Firm\ Source\ Capacity}{MDD\ ERU\ value}$ where Firm source capacity = source capacity with largest source (Well 1) offline
Treatment	Not Limiting	The City has designed treatment capacity with sufficiency capacity to serve its sources.
Equalizing Storage (ES)	18,813	$N = \frac{1}{C}\left[\left(\frac{1440}{MDD}\right)\left(\frac{ES}{150} + Q_s - 18\right) - F\right]$ where MDD = MDD, gpd/ERUs C = Coefficient associated with ranges of ERUs F - Factor associated with ranges of ERUs Q_s = Total source pumping capacity, gpm
Standby Storage (SB)	15,306	$N = \frac{SB_t}{(SB_i)(t_d)}$ where SB_t = total volume of water in standby storage component (gal) SB_i = Design level of standby storage to meet reliability considerations per ERU (gpd/ERU) t_d = time that storage is to be used (days)
Distribution	Not Limiting	Not considered capacity limited because the City has planned projects to address all identified deficiencies and design standards confirm all new development meets City standards.
Transmission	Not Limiting	Assumed to be addressed as part of source and pumping capacity.
Limiting Water System Physical Capacity in 2040 (ERUs)	14,910	Sources (MDD)
Projected ERUs for 2041 planning year	12,242	

5.9 Summary of System Analysis Recommendations

This section summarizes the recommended improvements to the City's water system identified during the system analysis. The projects are categorized by infrastructure and use the following abbreviates for project identification:

- Supply (S).
- Storage (ST).
- Pressure Zone (PZ).
- Pump Station (PS).
- General (G).
- Distribution Pipeline (D).

Figure 5.14 shows the locations of the recommended improvement projects.

5.9.1 Recommended Supply Projects

S-01: New Well in Angleside PZ

Existing sources are sufficient to provide projected 2041 MDD but cannot meet City's goal of providing 2041 MDD with the largest supply out-of-service. With a capacity of 1,000 gpm, the future New Well would be sufficient to meet the City's goal of providing 2041 MDD with largest supply out-of-service. If possible, it is recommended that this project be co-located with an at-hydraulic-grade reservoir (ST-02) in the Angleside PZ. This project will entail transferring the water right from Shelton Springs to the New Well.

5.9.2 Recommended Storage Projects

ST-01: New Mt. View Ground Storage Reservoir

A new reservoir with a usable storage capacity of 1.0 MG is recommended to provide additional storage in the Mt. View PZ to help storage deficiencies. Improvements are required to meet DOH storage criteria.

ST-02: New Angleside Reservoir

A new reservoir with a usable storage capacity of 1.0 MG is recommended to help storage deficiencies in the system. The Angleside reservoir can either be ground or standpipe-style reservoir. Both options will require a booster pump station. To aid in operations, it is recommended than an at-hydraulic-grade reservoir (standpipe or elevated) and the New Well be co-located, if possible. See project S-01. Distribution system improvements may be required depending on the location of the reservoir.

ST-03: New Angleside Reservoir

A 0.41 MG Upper Mt. View Pressure Zone elevated tank is needed to provide adequate water service to Shelton Hills Development. This project is required to provide sufficient service pressures during fire flows in the proposed development (Phase 2 and beyond). This project is developer-funded.

5.9.3 Recommended Pressure Zone Improvement Projects

PZ-01: Mt. View PZ Boosted Zone

There are customers within the Mt. View PZ that, due to high elevations, have low pressures during peak hour demands. This project is to rezone a section within the Mt. View PZ to the

Upper Mt. View PZ to provide peak hour demand pressures greater than 30 psi to all customers. The transmission of the Upper Mt. View PZ supply will require 3,000 LF of 12-inch pipe from the Well 3/Well 4 site, south on N Shelton Springs Rd to N 13th St, and east on W Alpine Way to Alpine Dr.

PZ-02: Angleside PZ Boosted Zone

There are customers within the Angleside PZ that, due to high elevations, have low pressures during peak hour demands. This project is to add small jockey pumps to two areas of the pressure zone with high elevations to provide domestic flows at pressure greater than 30 psi during peak hour demands. This project will require improvements in the interim to address fire flow deficiencies at high elevations in the Angleside PZ in projects PS-01, G-01, and D-05.

5.9.4 Recommended Pump Station Improvements

PS-01: Angleside Reservoir PS Control Study and Improvements

Higher pressures during fire flow are needed to resolve deficiencies in high elevation areas of the Angleside PZ. Currently the Angleside Reservoir PS is manually controlled. This project is to construct control improvements to allow automated use of the City's Angleside Reservoir PS. The Reservoir PS may not automatically start for low flow hydrants if available flow is below control trigger. These hydrants will need to be addressed separately with the Fire Department.

This project will require new control valves, VFDs, and site piping at the Angleside BPS and Reservoir PS sites. There are two recommended, automated control modes: high reservoir outflow (fire flow) and low reservoir level (emergency supply).

PS-02: Capitol Hill Pressure Improvements

The existing Capitol Hill BPS and Reservoir are not able to provide 30 psi to all customers during PHD scenarios. To increase the peak hour demand pressures and pump station redundancy, it is recommended the Capitol Hill PZ be converted to a closed pressure zone. This project recommends decommissioning the Capitol Hill Reservoir and constructing a new Capitol Hill BPS to supply customers at a higher hydraulic grade. This will require increasing the BPS capacity to meet the peak hour demand and fire flows of approximately 1,750 gpm of flow (firm capacity). Approximately 1,000 ft of distribution mains may need to be upsized to support the greater pumping rates.

PS-03: Upper Mt. View Booster Pump Station

A new Upper Mt. View BPS will provide supply/pumping redundancy to the Upper Mt. View PS if Well 3 is offline. It is recommended that the BPS is located at the site of project ST-01. This BPS will be sized to supply 1,500 gpm to the Mt. View and Upper Mt. View PZs. The Upper Mt. View Reservoir will remain online to provide storage for the pressure zone. Previous analysis of the Dayton-Airport Road Commercial Industrial Center (DARCI) indicated that additional infrastructure would be needed to support development. This analysis was performed as part of the System Analysis for Urban Growth Area Expansion that included a Technical Memorandum a draft of which was completed in September 2016. This BPS cannot provide fire flow to future DARCI industrial users but could provide domestic water demands.

5.9.5 Recommended Fire Flow Deficiency Improvements

G-01: Hydrant Improvements

Field investigation identified some hydrants that may need repair and/or are severely limited by low system pressure. The recommended project is to work with the Fire Department to identify ways to provide fire flows in these areas, keeping in mind that reservoir levels will be lower in a fire flow condition than normal conditions. Repair, move, and hood/remove fire hydrants as agreed with Fire Department.

D-01 through D-05

Table 5.13 summarizes the recommended distribution system improvements to address fire flow deficiencies, including the project ID, name, and purpose.

5.9.6 Shelton Hills Improvements

The Shelton Hills development is an 800-acre master-planned community in the City west of Highway 101 between "C" St and Wallace Kneeland Blvd. Improvements are developer-funded projects. The development is expected to occur in the long-term planning horizon and will include commercial development with service from the Mt. View PZ, and commercial, business park, and residential development with service from the Upper Mt. View PZ. The development will require a new elevated reservoir in the Upper Mt. View PZ, and a transmission main to provide fire flow to the area. Improvements are planned to be online by 2041.

The Shelton Hills Improvements are developer-funded projects.

ST-02: Shelton Hills Elevated Reservoir

A 0.41 MG Upper Mt. View PZ elevated reservoir is needed as part of the Shelton Hills Development.

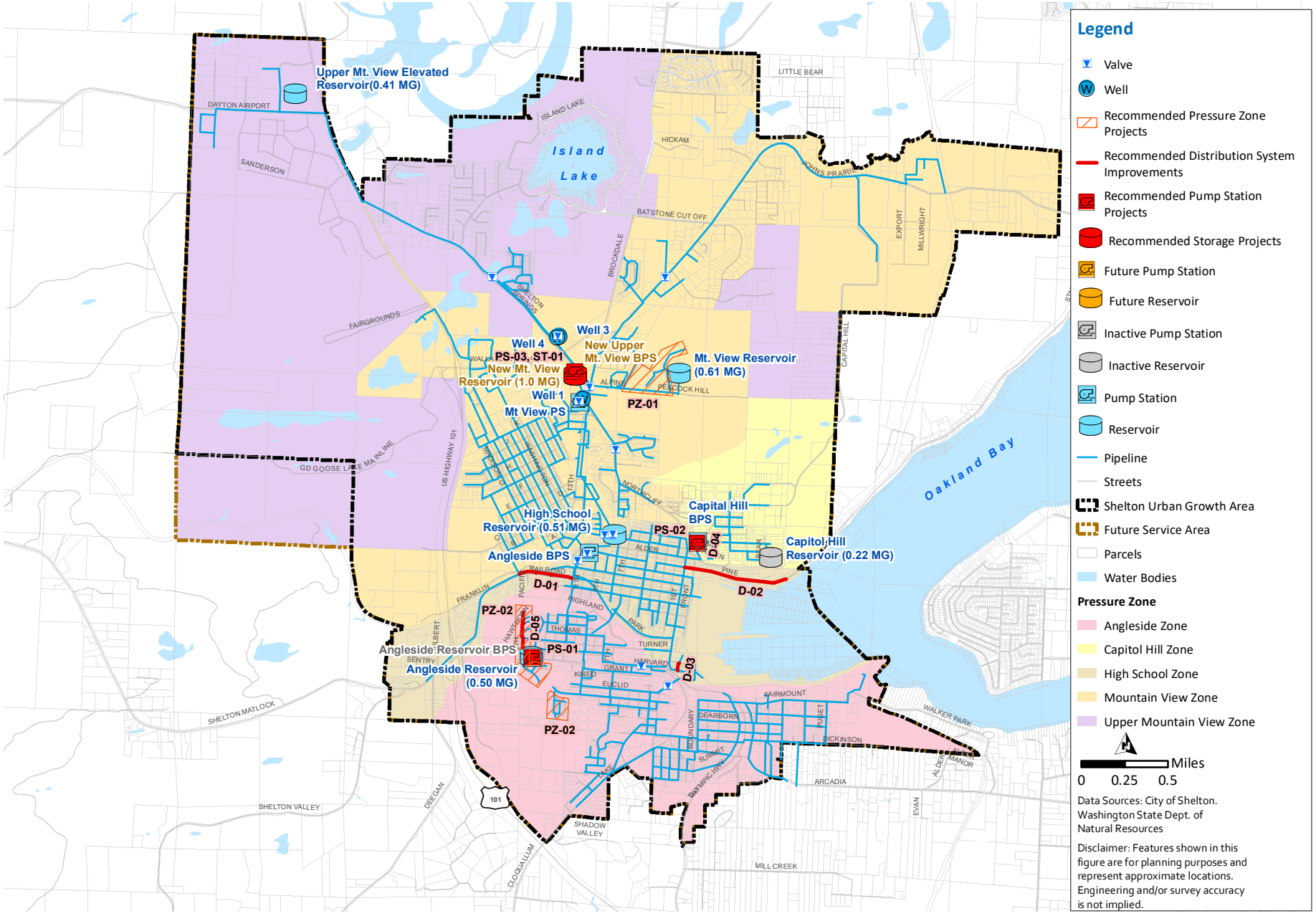
5.10 Areas of Shelton Urban Growth Area Not Currently Served by City

As part of the system analysis, future pipelines were assumed for service in currently unserved areas of the City's Urban Growth Area (UGA) for evaluation of system capacity, as shown in Figure 5.15. The future demands and locations/size of actual infrastructure should be confirmed and evaluated before approval of service. It should be noted that project PZ-01 will be required to serve the Upper Mt. View PZ area east of Johns Prairie Rd. Based on the assumed pipeline configuration, current demand projections, and recommended improvement projects outlined in Section 5.10, the City will have sufficient supply, storage, and pumping capacity to serve the area within the City's UGA in accordance with the future improvement assumptions and system criteria. No additional pressure or velocity deficiencies were identified to serve the areas currently unserved by the City as shown in Figure 5.15.

Table 5.13 Recommended Improvements for Fire Flow Deficiencies

ID	Project Name	PZ	Pipe Length (ft)	Existing Dia. (in)	Proposed Dia. (in)	Location	Purpose
D-01	W Railroad Ave Pipe Upsize	High School	1,700	8	12	W Railroad Ave	Upsize pipe to address fire flow deficiencies. Deficiency is due to 1,500 gpm fire flow demands on long, 8-in dead end pipe.
D-02(1)	E Pine St Pipe Upsize	High School	3,200	6	12	E Pine St	Upsize pipe to address fire flow deficiency. Deficiency is due to 1,500 gpm fire flow demand on long, small diameter (6-in) dead end pipe.
D-03(1)	Alleghany St Pipe Upsize	High School	230	6	8	Alleghany St	Upsize pipe to address fire flow deficiency. Deficiency is due to 1,500 gpm fire flow demand on small diameter (6-in) dead end pipe.
D-04	Capitol Hill Hydrant Lateral Relocation	Capitol Hill	300	n/a	6	Capitol Hill BPS	Move hydrant lateral to address fire flow deficiency at pressure zone boundary. Deficiency is due to 750 gpm fire flow demand at hydrant with high elevation in High School PZ.
D-05	S 16th St Pipe Project	Angle-side	800	n/a,4,6	8	S 16th St from May Ave north to end of street.	Upsize/loop pipe to address fire flow deficiency. Deficiency is due to 750 gpm fire flow demand at hydrant with high elevation in Angleside PZ.

Notes:
(1) Project will be developer funded.



Legend

- Valve
- Well
- Recommended Pressure Zone Projects
- Recommended Distribution System Improvements
- Recommended Pump Station Projects
- Recommended Storage Projects
- Future Pump Station
- Future Reservoir
- Inactive Pump Station
- Inactive Reservoir
- Pump Station
- Reservoir
- Pipeline
- Streets
- Shelton Urban Growth Area
- Future Service Area
- Parcels
- Water Bodies

Pressure Zone

- Angleside Zone
- Capitol Hill Zone
- High School Zone
- Mountain View Zone
- Upper Mountain View Zone

N

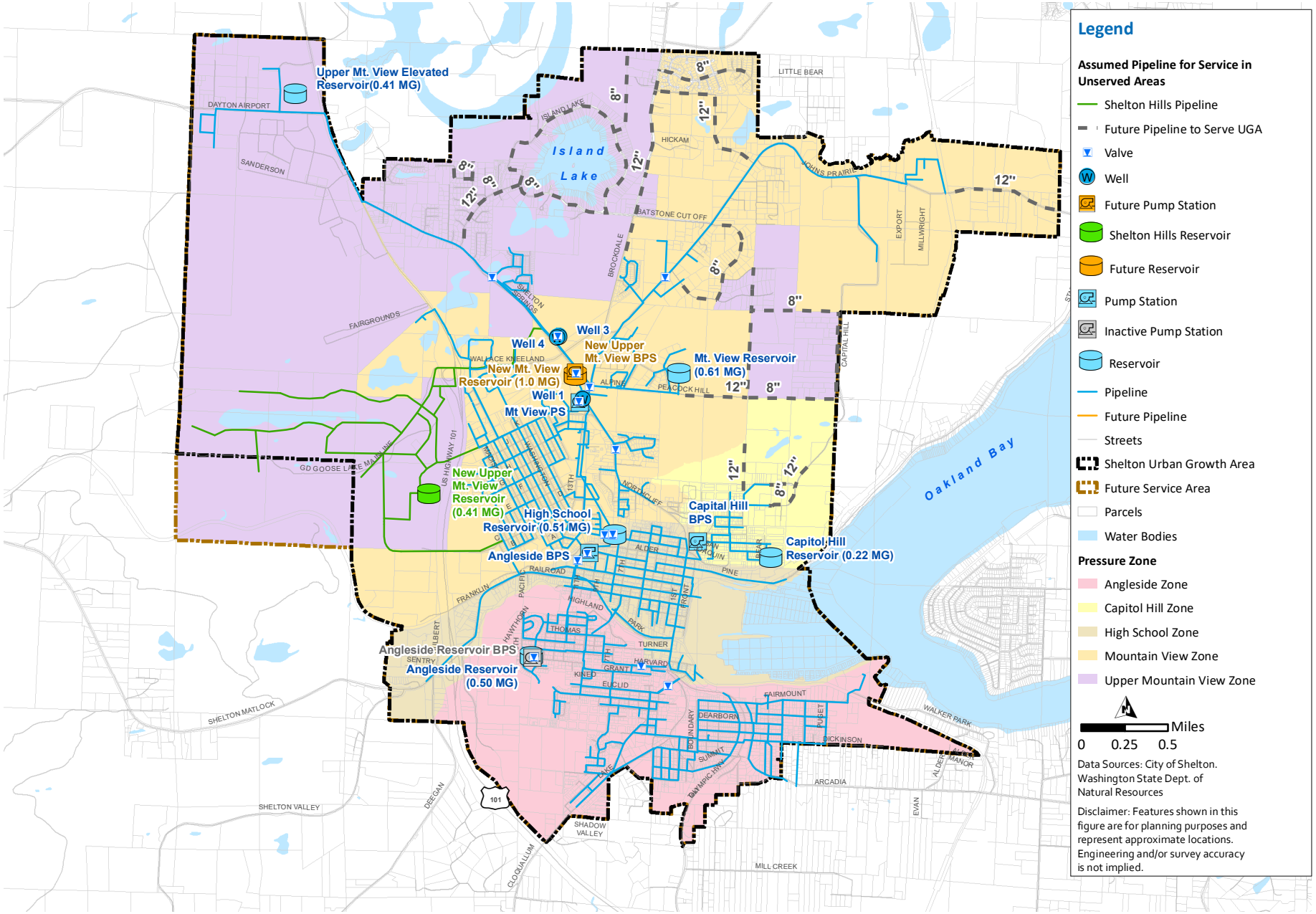
Miles

0 0.25 0.5

Data Sources: City of Shelton. Washington State Dept. of Natural Resources

Disclaimer: Features shown in this figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy is not implied.

Figure 5.14 Recommended Improvement Projects



Legend

Assumed Pipeline for Service in Unserved Areas

- Shelton Hills Pipeline
- Future Pipeline to Serve UGA
- Valve
- Well
- Future Pump Station
- Shelton Hills Reservoir
- Future Reservoir
- Pump Station
- Inactive Pump Station
- Reservoir
- Pipeline
- Future Pipeline
- Streets
- Shelton Urban Growth Area
- Future Service Area
- Parcels
- Water Bodies

Pressure Zone

- Angleside Zone
- Capitol Hill Zone
- High School Zone
- Mountain View Zone
- Upper Mountain View Zone

Miles
0 0.25 0.5

Data Sources: City of Shelton. Washington State Dept. of Natural Resources

Disclaimer: Features shown in this figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy is not implied.

Figure 5.15 Assumptions for Service in Unserved Areas

Chapter 6

WATER QUALITY

The City of Shelton (City) is defined as a Group A – Community Water System, and its primary concern is to monitor, protect, and enhance the quality of its drinking water sources.

The City's water is supplied by groundwater aquifers, which are tested regularly for the presence of contaminants at frequencies prescribed by the Washington State Department of Health's (DOH's) regulations. The City is also in compliance with all DOH reporting requirements, including the publication and distribution of an annual water quality report that keeps consumers informed about the quality of their water supply and water delivery systems.

This chapter further describes the City's water quality requirements for its sources and distribution system.

6.1 Water Quality Plan and Treatment

As a Group A Community Public Water System, the City must comply with the drinking water standards of the federal Safe Drinking Water Act (SDWA) and DOH standards under the Washington Administrative Code (WAC) 246-290. At this time, the City's water quality is in compliance with all state and federal water quality and reporting requirements.

The City maintains water quality within its system through the following approaches:

1. Routine system flushing of its distribution system to maintain satisfactory water quality.
2. A main replacement program to replace pipes with structural deficiencies.
3. Installation of pH meters at all sources to better manage pH and thus reduce corrosion within the distribution system.
4. Cross-connection prevention.

The City is recommended to take the following additional actions as part of its water quality planning programs:

- Track proposed new water quality rules and regulations being considered by the United States Environmental Protection Agency (USEPA) and DOH to plan for any effects that these new rules may have on the City's water system.
- Continue to implement its corrosion control treatment improvements as necessary to reduce levels of corrosion within the distribution system and private plumbing.

6.1.1 Treatment

The City currently has four water sources: Well 1, Well 3, Well 4, and Shelton Springs (emergency use only). The water produced by the three wells is disinfected at the sources using sodium hypochlorite, and the disinfection systems are adequately sized to disinfect each well at its current production capacity.

The Operations Staff collects daily water samples to check the chlorine residual levels.

6.1.2 Water Quality Monitoring

The City's comprehensive and proactive Drinking Water Quality Monitoring Program monitors operations, regulations to meet the requirements of the federal SDWA, and management of the City's aquifers. Operational monitoring is used to verify that the City's water facilities are functioning effectively to deliver high-quality drinking water to its customers and measures chlorine and pumping rates at each production well. Regulatory monitoring includes analytical testing for microbial pathogens, organic and inorganic chemicals, disinfection byproducts, and radionuclides. Sampling is performed at all locations and at frequencies required by state and federal regulations. Finally, aquifer monitoring is used to identify contamination and to track water levels in the aquifers.

Operations Staff carries our water quality sampling on a daily basis. In addition to checking that water treatment and maintenance are performed effectively, the water quality specialist manages the water quality data and records both for routine and special monitoring programs.

The Drinking Water Quality Monitoring Program included in Appendix 6A presents a detailed description of the water quality sampling methods, the sampling locations, sampling frequency, and record keeping procedures.

6.2 State and Federal Regulatory Requirements

This section presents the water quality standards demanded by the DOH and the USEPA through the SDWA. The SDWA, which was enacted in 1974 (and amended in 1986 and 1996), is the primary federal law that establishes standards for drinking water quality in public water systems. The DOH has adopted the federal drinking water regulations under WAC 246-290 and accepted the primary responsibility (or "primacy") of enforcing water quality monitoring and reporting. All existing and anticipated drinking water regulations that apply to the City are summarized in the following subsections and also shown in Table 6.1. Table 6.2 summarizes water quality exceedances in the past 10 years for the City's distribution and source water quality monitoring program.

Shelton Springs' water is considered groundwater under the influence of surface water and, if used as a permanent source, is required to meet surface water regulations, as well as the Information Collection Rule, Interim Enhanced Surface Water Treatment Rule (ESWTR), Long Term 1 Enhanced Surface Water Treatment Rule, Long Term 2 Enhanced Surface Water Treatment Rule, and Filter Backwash Recycling Rule. These regulations are not summarized in this chapter since they do not currently apply to Shelton Springs, which is only used as an emergency use source.

Table 6.1 Drinking Water Regulations Water System Plan Update

Rule	CFR	WAC 246-290	Affected Contaminants	Publication Date of Final Rule
Source Water Quality				
National Primary and Secondary Drinking Water Standards		Part 4, 300, 310, and 320	Bacteriological, IOC, VOC, SOC, Asbestos, Radionuclides, Trihalomethanes, Lead/Copper, Phase II/V	Phases I through V promulgated 1987 through 1992
Radionuclide Rule	40 CFR 141.15 141.25 141.26	Part 4, 300(8) 310(6), and 320(7)	Radionuclides	Promulgated December 2003 Compliance by December 2006
Arsenic Rule	40 CFR 141.23 141.24 141.16	Part 4, 300(4) and 310(3)	Arsenic	Promulgated February 2002 Compliance by January 23, 2006
Unregulated Contaminants Monitoring Rule		N/A	Various contaminants considered for future regulations	UCMR 1 promulgated 1999
				UCMR 2 promulgated 2007
				UCMR3 promulgated May 2, 2012
				UCMR4 promulgated December 2016, Compliance Period 2018 to 2020
Groundwater Rule		Part 4, 300(3) and 320(2)	Fecal indicators in groundwater	Promulgated January 8, 2007 Compliance by November 2010
Inorganic Chemicals	40 CFR 141.23 143.4	Part 4, 300(4) and 310(3)	Various Inorganic chemical contaminants.	Various
Organic Chemicals	40 CFR 141.24 141.61	Part 4, 300(7), 310(7), and 320(6)	Organic contaminants including VOCs and SOCs.	Various

Rule	CFR	WAC 246-290	Affected Contaminants	Publication Date of Final Rule
Distribution System Water Quality				
Revised Total Coliform Rule		Part 4, 300, 310(2), 320	Total coliform bacteria	Promulgated February 13, 2013 Compliance by April 2016
Lead and Copper Rule	40 CFR 141.85 141.86 141.87 141.88	Part 4, 300(2,5), 310(3), and 320(4)	Lead and Copper	Promulgated January 12, 2000 Revised December 4, 2013
Stage 1 Disinfectants/ Disinfection Byproducts Rule	40 CFR, Parts 9, 141, 142 63 FR 69390	Part 4, 300, 310, and 320	Trihalomethanes, haloacetic acids, chlorite, bromate, and disinfectant residuals	Promulgated February 16, 1999
Stage 2 Disinfectants/ Disinfection Byproducts Rule	40 CFR, Parts 9, 141, 142 71 FR 388	Part 4, 300, 310, and 320	Trihalomethanes and haloacetic acids	Promulgated January 4, 2006 Effective March 6, 2006 Compliance by October 2012
System-Wide Requirements				
Consumer Confidence Report Rule	40 CFR 141 Part O	Part 7, Subpart B	Reporting only	Published December 2012
Public Notification Rule	40 CFR 141 Part Q	Part 4, 320	Reporting only	Promulgated May 2000
Operator Certification Rule		WAC 246-292	N/A	Effective January 4, 2014

Note:
Abbreviations: CFR – Code of Federal Regulations; IOC – inorganic chemical; N/A – not applicable; SOC – synthetic organic chemical; UCMR 1 – 4 – unregulated contaminant monitoring rules 1 through 4; VOC – volatile organic chemical.

Table 6.2 Exceedances in Past 10 Years

Parameter	Monitoring Location	Exceedances in past 10 years (2009 – 2019)
Routine Coliform	Distribution	Total coliform detected in 2016 and 2018 (follow-up samples did not detect coliform)
Lead and copper	Distribution	None
Asbestos	Distribution	None
Total Trihalomethane (THM)	Distribution	None
Haloacetic acids (HAA5)	Distribution	None
Inorganic Chemicals (IOCs)	Source	None
Nitrate	Source	None
Complete inorganic (IOC)	Source	None
Iron	Source	None
Volatile organics (VOCs)	Source	None
Herbicides	Source	None
Pesticides	Source	None
Soil Fumigants	Source	None
Gross Alpha	Source	None
Radium 228	Source	None

6.2.1 Revised Total Coliform Rule

The Revised Total Coliform Rule (RTCR), which replaced the 1989 Total Coliform Rule, requires an agency's monitoring program to demonstrate that a water system is minimizing the risk of bacterial growth. Drinking water samples must be collected for bacteriological analysis from representative points in the distribution system at regular time intervals. The number of water samples is dependent upon the population being served by the system.

The City conducts its coliform testing according to its coliform monitoring plan. The number of samples required to represent a distribution system depends on the number of service connections the system supports. In 2018, the City submitted 10 samples her month for microbiological/bacteriological contaminant analysis. These samples were taken from ten routine locations throughout the distribution system; two in each pressure zone. The triggered source monitoring requirement of the Groundwater Rules require that each source which was in active service at the time of the detection also be sampled within 24 hours of an unsatisfactory coliform sample.

Included in Appendix 6C, the City's Coliform Monitoring Plan identifies coliform monitoring locations and sampling procedures. Included in Appendix 6C is the draft communication for the City's Boil Water Notice and Coliform Detection Advisory. The City detected coliform in a sample in 2016 and 2018; however, follow-up samples did not detect coliform.

6.2.2 Stage 1 and 2 Disinfectants/Disinfection Byproducts Rules

Because the City uses chlorine for disinfection, it must meet the USEPA requirements of the Stage 1 and Stage 2 Disinfectants/Disinfection Byproducts Rules (D/DBPR). In general, the City's high-quality source water and applied treatment result in low concentrations of disinfection byproducts, which are produced from reactions between chlorine and natural organic matter.

Given low levels of the two most common disinfection byproducts in a water system, THM and HAA5, the City has been approved to reduce its monitoring and is now required to sample for THM and HAA5 once per year.

D/DBPR compliance monitoring is detailed in the City's Stage 2 Disinfectants and Disinfection Byproducts Monitoring Plan, which is included as part of its Drinking Water Quality Monitoring Program (Appendix 6A).

6.2.3 Groundwater Rule

The Groundwater Rule builds on the Total Coliform Rule by addressing the health risks of microbial pathogens (bacterial and viral) in community public water systems that use groundwater sources.

The City has 4-log virus treatment (99.99-percent inactivation) at each supply source and conducts routine compliance monitoring. The City also conducts periodic sanitary surveys to address system deficiencies at risk of microbial contamination.

6.2.4 Arsenic Rule

The arsenic rule was adopted by the DOH as a revision to the arsenic maximum contaminant level (MCL) under WAC 249-290-310.

The City samples for arsenic during its inorganic chemical analysis. During the last monitoring period, all samples were non-detect for arsenic.

6.2.5 Radionuclides Rule

The City monitors radiological contaminants (radionuclides) at each source after treatment once every six years. During the last monitoring period (September 2016), all samples were non-detect for Gross Alpha particles and Radium 228.

6.2.6 Inorganic Chemical Analysis

Inorganic contaminants are metals, salts, and other non-carbon compounds that are naturally-occurring in the environment or present as a result of human activities such as urban stormwater runoff or industrial wastewater discharges. An inorganic chemical analysis detects and evaluates physical properties of inorganic chemicals that affect water quality, such as hardness, turbidity, color, conductivity, and total dissolved solids.

The City is required by the DOH to take samples for inorganic chemical analysis at each source after treatment. The complete inorganic chemical and physical analysis evaluates primary and secondary chemical and physical drinking water contaminants specified in WAC 246-290. Given its historically low levels of these contaminants, the City has been approved by the DOH to reduce its monitoring to once every nine years with the exception of nitrate, which is monitored annually. The City also has a permanent waiver for asbestos monitoring from the DOH. During the last monitoring period, no samples exceeded the MCLs for inorganic chemicals.

6.2.7 Organic Chemical Analysis

VOCs are carbon-containing substances that easily become vapors or gases under typical room temperatures. Some are hydrocarbons associated with petroleum fuels and solvents.

VOCs are divided into regulated and unregulated VOCs. Currently, 21 regulated VOCs have been determined to pose a significant risk to human health. This group does not include organic pesticides, herbicides, or insecticides, which are regulated separately as SOCs. Currently, there are 33 regulated SOCs.

The City is required by the DOH to take samples for organic chemical analyses at each source after treatment. Given historically low levels of these substances, the City has been approved by the DOH to reduce its monitoring for VOCs to once every six years for Wells 3 and 4. For Well 1, the City is required to monitor for VOCs with sampling once every three years. The City has also been approved to reduce its monitoring for herbicides to once every nine years at all wells.

In addition, the City has been granted waivers for pesticides and soil fumigants. State-wide waivers have been issued for insecticides, dioxin, diquat, endothall, glyphosate, polychlorinated biphenyls (PCBs), ethylene dibromide (EDB), and dibromochloropropane (DBCP).

Recent chemical analyses of the City's supply sources show no contamination from VOCs or SOCs. The City must test for trihalomethanes at all wells once a year since they are chlorinated. During the last monitoring period, low levels of trihalomethanes were detected in the samples, but they were significantly below the MCL for total trihalomethanes.

6.2.8 Lead and Copper Rule

Action levels were established for lead and copper under the 1991 Lead and Copper Rule (LCR), whose goal is to protect public health by minimizing lead and copper levels at consumers' taps, primarily by reducing water corrosively within the distribution system. The 2007 Short-Term Revisions to the LCR enhanced monitoring, treatment, lead service line replacement, public education, and customer awareness.

The City's source water contains no significant amounts of lead and copper. However, potential health risks are posed by leaching of lead and copper from components in the distribution system, as well as from household plumbing. The City reduces the risk of leaching by continuously treating its source water to raise the pH of the water.

LCR sampling was most recently conducted in 2018, during which 30 samples were tested for lead and copper from residential water faucets. All of the samples tested had levels far below the action levels for both lead and copper. Appendix 6A includes a detailed description of the 2018 LCR sampling as part of the Drinking Water Quality Monitoring Program.

Long-term revisions to the LCR are expected in the next few years to improve the existing rule using recommendations from the National Drinking Water Advisory Committee and lessons learned from the water crisis in Flint, Michigan. This and other future regulations are detailed further in Section 6.2.12, Future Regulations.

6.2.9 Unregulated Contaminant Monitoring Rule

The SDWA establishes periodic monitoring requirements for contaminants that are suspected to be in drinking water but not yet subject to drinking water regulations. The City has conducted its fourth cycle of monitoring for unregulated contaminants (UCMR4), whose report was published in December 2016. Because the City uses groundwater supply sources, its UCMR4 monitoring consists of 20 unregulated chemical contaminants: two metals, eight pesticides plus one pesticide manufacturing byproduct, three brominated haloacetic acid disinfection byproducts groups, three alcohols, and three semivolatile organic chemicals.

6.2.10 Consumer Confidence Report Rule

Finalized on September 19, 1998, the Consumer Confidence Report (CCR) Rule demands that, every July, community water systems provide annual reports to their customers with information about the quality of their drinking water supply. The City complies with the CCR through its Annual Water Quality and Efficiency Report. This report lets customers know whether or not their water meets state and federal drinking water standards and also includes information on the water source, the regulated and unregulated contaminants that have been detected during the year, and their concentrations.

The report also provides information on disinfection byproducts or microbial contaminants and the potential health effects of the contaminants at concentrations greater than the MCL. In the case that contaminants are detected, the likely source of the contaminants is identified, and a summary of any violations in monitoring, reporting, or record-keeping is included.

Finally, to help customers with special health needs make informed decisions about their drinking water, the report also provides references and telephone numbers that will direct them to resources about health effects data and available information about the water system in general.

Appendix 6B presents the City's most recent CCR (2019 Report for the Year 2018).

6.2.11 Public Notification Rule

The Public Notification Rule (PNR) requires that public water systems notify their customers when they violate USEPA or State regulations, including monitoring requirements, or otherwise provide drinking water that may pose a risk to consumers' health. The original PNR requirements were established in the SDWA; the revised PNR was promulgated in 2000 as required by the 1996 SDWA amendments.

The PNR establishes three notification levels:

- Immediate Notice (Tier 1): In a situation that has the potential for human health to be immediately affected, notification is required within 24 hours.
- Notice as Soon as Possible (Tier 2): In a situation where an MCL is exceeded or water has not been treated properly but there is no threat to human health, notification is required as soon as possible and within 30 days.
- Annual Notice (Tier 3): In a situation where a standard is violated that does not directly affect human health, notice must be provided within one year, likely within the system's CCR.

Included in Appendix 8A, the City's Emergency Response Plan (ERP) describes these notification requirements in further detail. The ERP includes protocols for notifying the DOH and the public when a positive detection of VOCs/SOCs, IOCs, physical characteristics, or bacteriological presence is determined. The ERP maintains current phone numbers and contact information to all relevant utilities, contractors, government agencies, and local cable and radio stations.

6.2.12 Future Regulations

The City monitors potential developments surrounding new rules and changes to existing ones. In particular, the City is examining long-term revisions to the LCR, which are expected to occur in the next few years to improve the existing rule using recommendations from the National Drinking Water Advisory Committee and lessons learned from the water crisis in Flint, Michigan. Potential elements under consideration include lead service line replacement programs, improved optimal corrosion control treatment requirements, health-based benchmarks for lead, point of use filters, improved sampling procedures, increased transparency and information sharing, and public education.

Table 6.3 Outlines other Proposed Future Regulatory Requirements that the City is Monitoring

Regulation	Effective / Compliance Date	Regulation Summary and City Status
Unregulated Contaminant Monitoring Regulations	Unregulated Contaminants	UCMR 5 - unknown
Contaminant Candidate List	Unregulated Contaminants	CCL5 - unknown
Perchlorate	In February 2011, USEPA decided to regulate perchlorate	The City is monitoring the development of this rule.
Per-and polyfluoroalkyl substances (PFAS)	DOH began rulemaking for PFAS in drinking water in late 2017.	The City is monitoring the development of this rule.
Lead and Copper Rule Revisions	USEPA is considering additional revisions to the LCR.	The City is monitoring the development of these rule revisions.
Strontium	USEPA is considering issuing a regulatory standard based on UCMR3 results.	The City is monitoring the development of this national primary drinking water regulation for strontium.
Chromium Rule Revision	USEPA is considering additional revisions to the Chromium Rule.	The City is monitoring the development of these rule revisions.

Note:
(1) Effective and compliance dates were obtained from the Federal Register and USEPA's Drinking Water Hotline and represent the best information available as of the date of this report.
Abbreviations: CCL – contaminant candidate list; PFAS - per-and polyfluoroalkyl substances.

6.3 Recommended Improvements

Due to sanitary concerns with the City's existing gravity main between Well 1 and the High School Tank, the City has planned a project to replace the existing pipe, eliminate connections that are no longer used, and pressurize the system.

Chapter 7

SOURCE WATER PROTECTION

7.1 Introduction

The City of Shelton's (City's) wellhead protection plan was updated as part of the Plan. The 1986 amendments to the Federal Safe Drinking Water Act (SDWA) mandated that each state develop a wellhead protection program to protect ground waters that serve as drinking water sources for public water supplies. In 1994, the Washington State Department of Health (DOH) adopted Washington Administrative Code (WAC) 246-290, which directed Group A public water systems using wells or springs to implement wellhead protection (WHP) measures.

Washington State regulations (WAC 246-290 135) require all Group A water systems to:

- Maintain a Sanitary Control Area Fact Sheet immediately surrounding all drinking water sources to protect them from contamination.
- Develop and implement a Source Water Protection Program, which can be either:
  - Wellhead protection program (for groundwater sources).
  - Watershed Control Program (for surface water and groundwater under the influence of surface water sources).

The City has developed a wellhead protection program for its groundwater sources.

7.2 Wellhead Protection Program

The overall goal of the state WHP program is to prevent the contamination of groundwater used by Group A public water systems. This is to be accomplished by providing management zones around public wells, identifying existing groundwater contamination sources, and managing potential sources of groundwater contamination prior to entry into the drinking water system. Under WAC, local public water systems have the primary responsibility for developing and implementing local wellhead protection plans (WHPP). However, due to the limited jurisdictional and regulatory authority afforded most purveyors, coordination with other local, state, and federal agencies is essential to the successful implementation of a WHPP.

The DOH has developed regulations that require Group A water systems using groundwater sources to develop and implement a WHPP. The objective is to prevent releases of contaminants to groundwater in areas that contribute water to the public supply systems. The basic elements of a WHPP include:

- A completed susceptibility assessment.
- A delineated wellhead protection area (WHPA) for each well, well field, or spring.
- An inventory of potential contamination sources in the WHPA that could threaten the water-bearing zone (aquifer) used by the well, spring, or well field, which must be updated every two years.
- Documentation showing the water systems sent delineation and inventory findings to required entities

- Contingency plan for providing alternate drinking water sources if contamination does occur.
- Coordination with local emergency responders for appropriate spill or incident response measures.

The City's original WHPP was developed in 1999. The 2019 update to the City's Wellhead Protection Plan was completed by Robinson Noble, Inc. and is included in Appendix 7A.

7.3 Susceptibility Assessment

An analysis of the susceptibility of drinking water sources to contamination was completed as part of the WHPP. Determining the susceptibility of the water source to inventoried threats relates the nature and severity of the treat to the likelihood of source waters serving the system being contaminated.

The Ground Water Contamination Susceptibility Assessment Survey Forms (DOH 331-274-F) were completed in November 2019 for all of the City's water sources. The susceptibility assessments are included in the Appendices of the Wellhead Protection Plan in Appendix 7A.

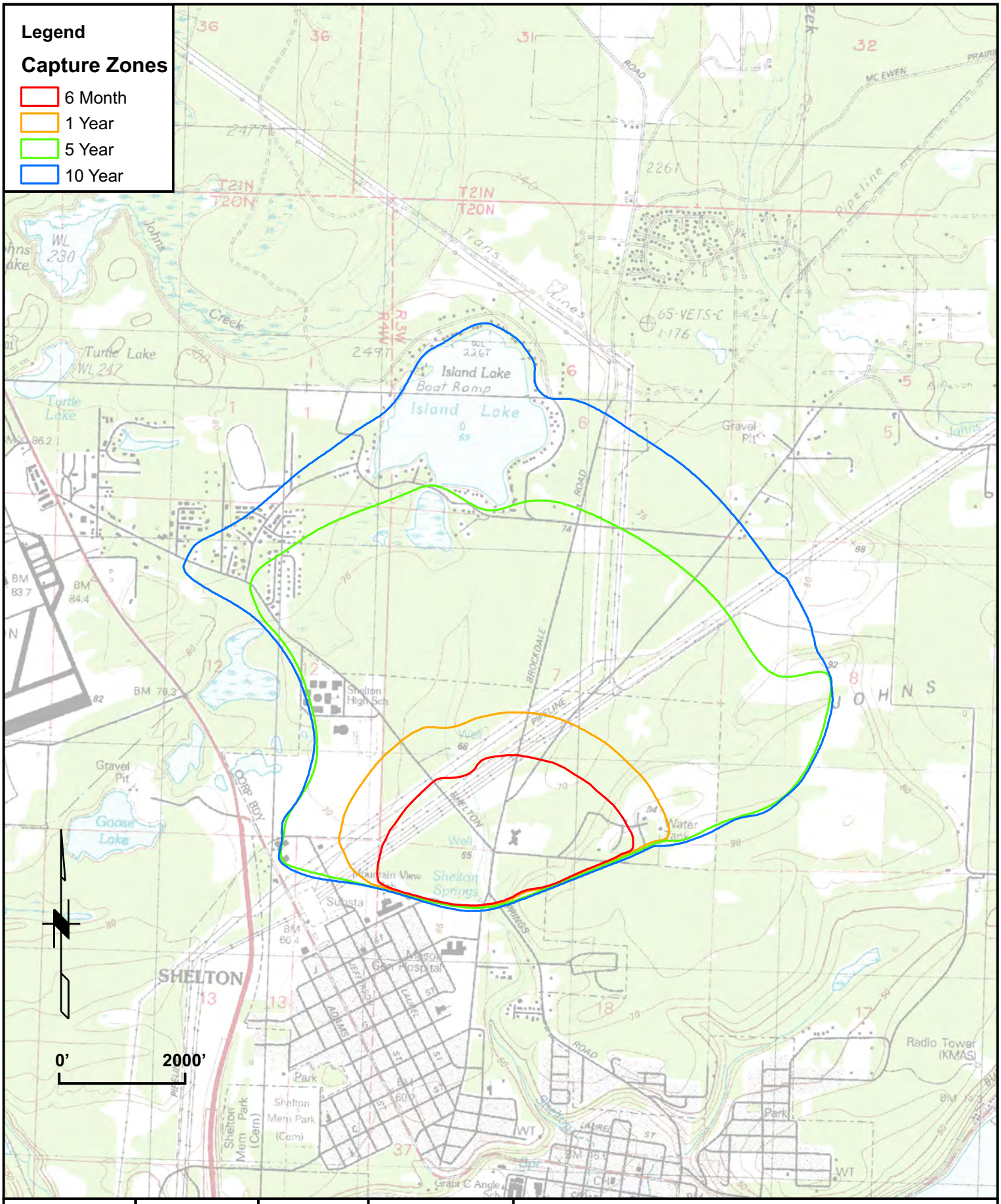
7.4 Wellhead Protection Area

A WHPA is a representation of where the water produced by a given well comes from. It is based upon delineated capture zones, which describe the area of an aquifer (and all overlying material) that can contribute water to the will in a given period of time. Capture zones are typically defined as time-of-travel periods of six months, one, five, and ten years.

The City relies on three main wells (Wells 1, 3, and 4) for their groundwater needs and have an emergency backup source at Shelton Springs if needed. There are three aquifers in which the groundwater is pumped out of: the Recessional Aquifer, the Sea Level Aquifer, and the Deep Aquifer. Shelton Springs is in the Recessional Aquifer, but this source is currently inactive due to water quality concerns. As it is a backup sources, it is included in the update to the WHPP. Wells 1, 3, and 4 are all screened in the Sea Level Aquifer, which is the main aquifer for the City. Well 1 also appears to be completed in the Deep Aquifer and pumps from both aquifers when the well is on.

The capture zones for all water sources were modeled, and the results indicate a generally southwesterly trending groundwater flow within all three aquifers. The close proximity of Wells 1, 3, and 4 and their common completion on the Seal Level Aquifer results in capture zones that coalesce into a single larger WHPA. Well 1 has its own, separate WHPA for the Deep Aquifer. Shelton Springs also has its own WHPA for the Recessional Aquifer.

Figures 7.1 through 7.3 show the capture zones for the Recessional Aquifer, Sea Level Aquifer, and the Deep Aquifer, respectively. Detailed results and WHPA delineation can be found in Chapters 2 and 3 of the WHPP in Appendix 7A.



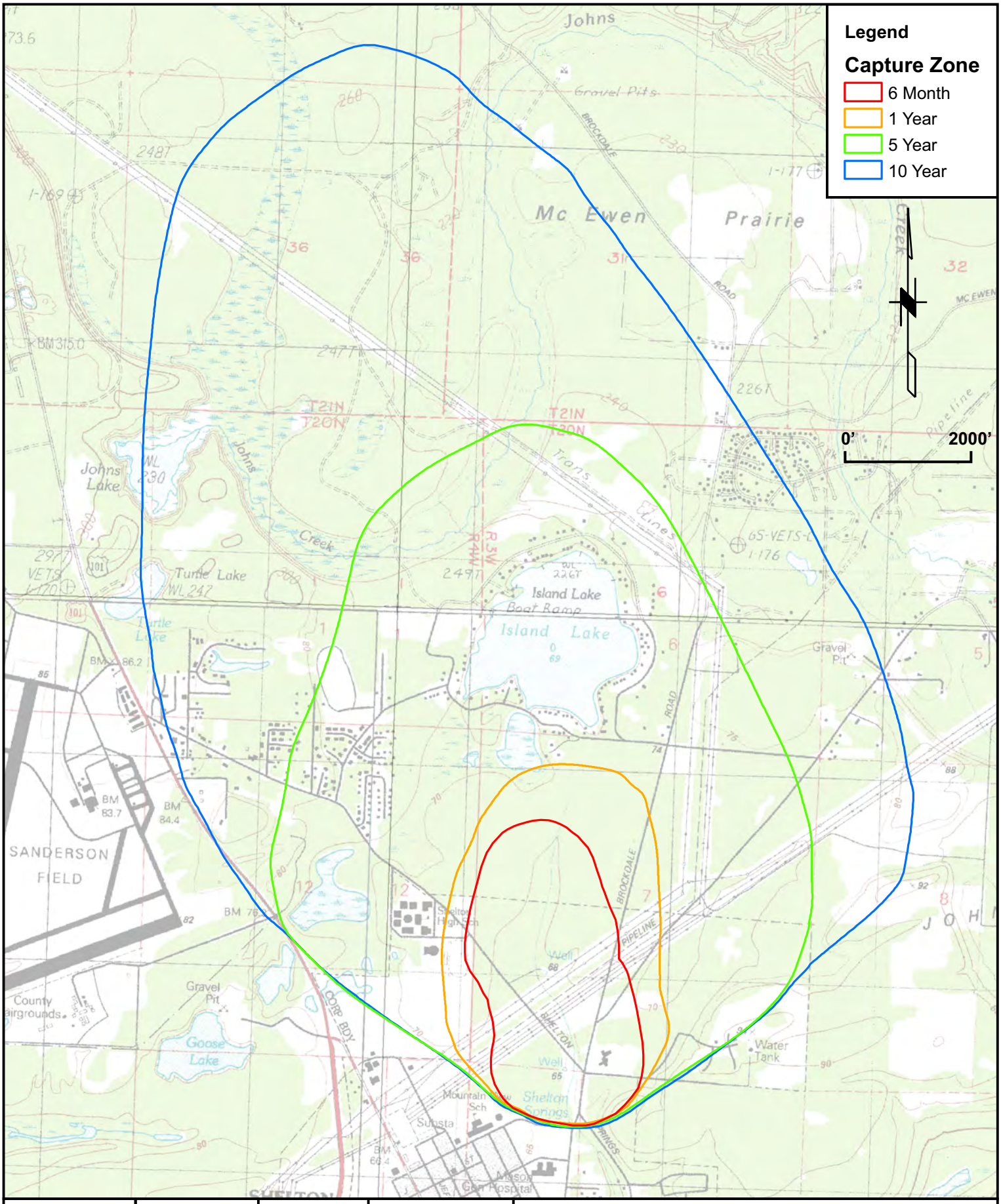
ROBINSON NOBLE

Note: Basemap taken from USGS Shelton Quadrangle

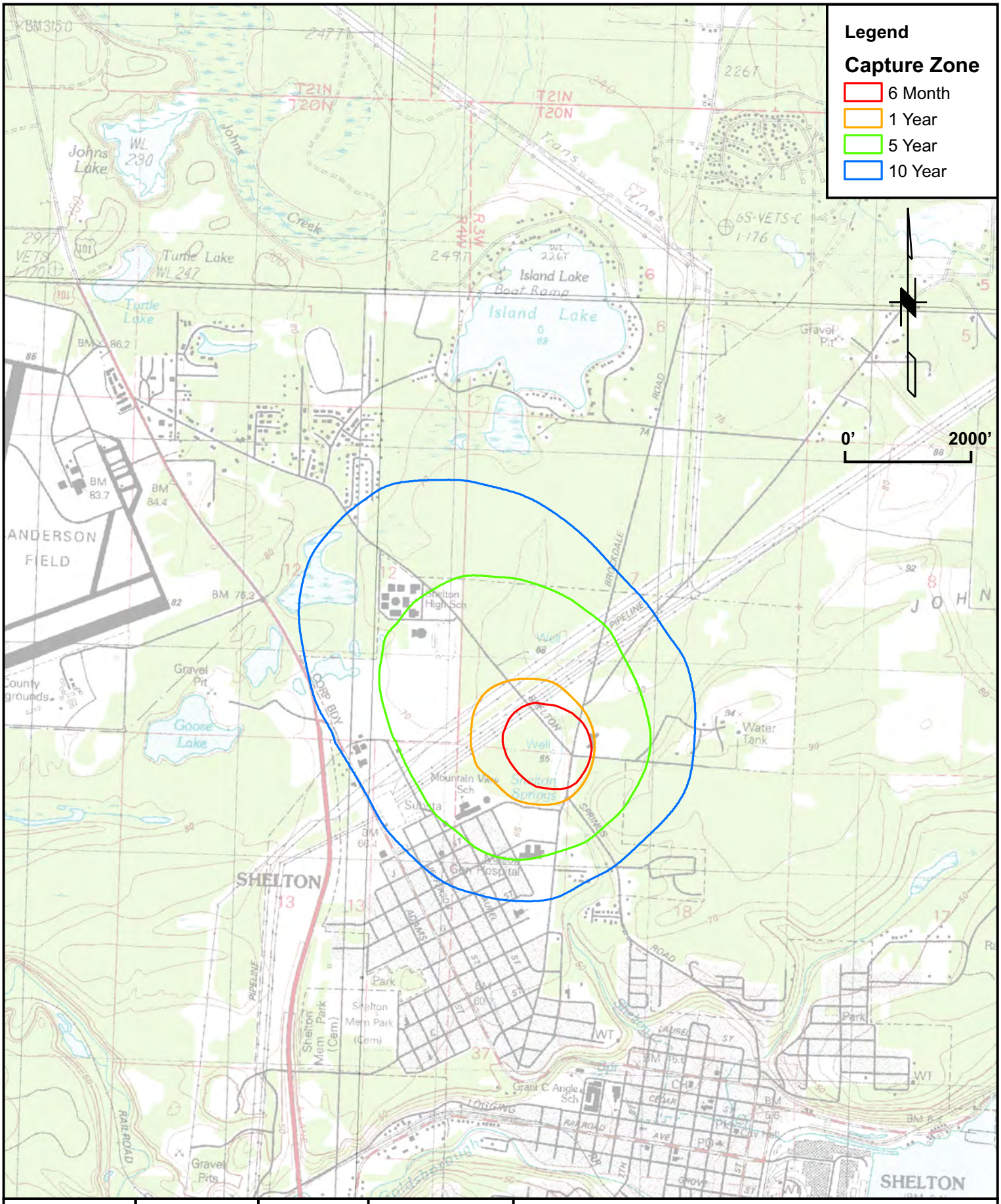
PM: MFP
November 2019
1840-003B

Mason County
T 20 N/R 03 E
Scale 1" = 2000'

Figure 12
Recessional Aquifer Capture Zones
City of Shelton: Wellhead Protection



ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 E Scale 1" = 2000'	Figure 13 Sea Level Aquifer Capture Zones City of Shelton: Wellhead Protection



ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 E Scale 1" = 2000'	Figure 14 **Deep Aquifer Capture Zones** City of Shelton: Wellhead Protection

7.5 Inventory of Potential Contamination Threats

The inventory of potential contamination sources within the WHPA was performed according to the DOH guidance document: Inventory of Potential Contaminant Sources in Washington's Wellhead Protection Areas (1993). Environmental Data Resources, Inc. (EDR) reviewed 26 federal and state environmental databases for any known or potential contaminant sites within a circle with a 1.85-mile radius that encompasses all of the delineated WHPAs. This resulted in a list of 235 potentially hazardous sites that were reviewed as part of the update to the WHPP. The locations, types of listing, and nature of these sites were evaluated, resulting in a subset of 112 listings considered to pose a risk to groundwater. These were mapped, then evaluated further.

An evaluation of various land-use categories within the City was also performed. The results were ranked as to their respective risks and included in the list of potential hazards. Robinson Noble completed the field survey of the capture zones and added three additional sites to the potential hazards list.

After completing this process, 76 sites or categories of land use were identified as known or potential hazards to the City's wells. These were priorities and ranked such that the wellhead protection implementation process can address each site of land use in a systematic manner. Each site was ranked according to four factors. The factors are proximity of potential hazard to the WHPA, type of contamination, severity of contamination, and straight-line distance from the wells to the potential hazards. Detailed information and results of the inventory of potential contamination sources within the WHPA can be found in Chapter 4 of the WHPP in Appendix 7A.

7.6 Documentation of Notification Letters

DOH requires documentation showing that the water system sent delineation and inventory findings to required entities. The WHPP includes a copy of a notification letter sent to Central Mason Fire and EMS, the Mason County Sheriff, and the City's Police Department, which can be found in the Appendices of the WHPP in Appendix 7A. A map of the WHPA was enclosed with the letter.

7.7 Management Strategies and Implementation Tasks

The completion of wellhead protection planning provides no safeguards unless effective management strategies are implemented to prevent potential contamination of groundwater sources. The City does not own or control all of the land within its WHPAs. Maximum effectiveness can be achieved in implementing the WHPP through a cooperation effect between the City, neighboring purveyors, and the state and local agencies which regulate potentially harmful activities within the WHPA. A key component to its management of the area will be the notification of the existence and extent of the management area to the proper agencies in Mason County, neighboring communities, and local residents.

The WHPP outlines proposed strategies developed to protect the integrity of the City's water sources, including the following:

- WHP Management Strategies: proposed strategies developed to protect the integrity of the City's water sources, including:
  - Long-Term Management and Cooperation.
  - Establish a WHP Committee.
  - Land Management Activities.

- WHP Land Use Strategies: proposed strategies to develop a cooperative relationship with state and local agencies that administer land use programs for areas within the WHPA but outside the City limits.
- WHP Regulatory Strategies: proposed strategies for the City, in coordination with state and local agencies having statutory authority in the area, to monitor regulated activities within the WHPA.
- Planning Strategies: strategies recommended for future protection for the WHPA that are achieved through present-day planning and coordination.
- Data Management Strategies: strategies recommended to develop a data collection network and analysis plan capacity of providing the City with advance warning of contamination to the City's water supply.
- Education Strategies: recommended strategies for the education of the public and industrial/commercial occupants of the WHPA concerning groundwater protection.

Detailed information about these strategies can be found in Chapter 5 of the WHPP in Appendix 7A.

7.8 Wellhead Protection Implementation Tasks

In order to accomplish the protection of the WHPA, the WHPP outlines a list of 26 implementation tasks that are recommended for the City to adopt:

- Task 1: Expand the City's Emergency Management Committee to include WHP Planning.
- Task 2: Establish formal communication with first responders.
- Task 3: The City should also supply notification of the existence of the WHPA to the Health and Planning/Land-Use departments of Mason County.
- Task 4: Consider seeking designation of the WHPA as a special protection area.
- Task 5: It is recommended that the City seek to create awareness of the WHPA by posting metal "WATER SUPPLY PROTECTION AREA" signs at the borders of the WHPA.
- Task 6: Communicate the location of the WHPA, explain basin WHP concepts, and address specific WHP concerns to industrial/commercial site owners and local gravel mine owners.
- Task 7: Increase public awareness of homeowners who are connected to the City's water system through notification letters to customers within the WHPA.
- Task 8: Encourage the enforcement of the requirement that engineering as-builts of new septic systems be recorded with property deeds.
- Task 9: Review routine leak detection procedures for sewer lines.
- Task 10: Document the location and use of petroleum pipelines and develop appropriate emergency procedures.
- Task 11: Participate in a regional groundwater data development and management program.
- Task 12: Support Mason County in seeking delegation of well drilling inspection authority.
- Task 13: Assure that the hydrogeologic impact of surface development and management program is adequately evaluated during the State Environmental Policy Act (SEPA) process.

- Task 14: Document the type and amount of herbicide and pesticide application.
- Task 15: Annually review the Model Toxics Control Act (MTCA), Resource Conservation and Recovery Act (RCRA) notifiers, and leaking underground storage tank (LUST) sites files within the WHPA.
- Task 16: Review the annual Superfund Amendments and Re-authorization Act (SARA) Title III reports.
- Task 17: Promote and coordinate the public education programs regarding household hazardous materials use, storage, and disposal with each county local hazardous waste management program.
- Task 18: The City should develop data on the number and size of exempt underground storage tanks within the 1-year WHPA.
- Task 19: Seek to have Ecology prioritize the investigation of contaminated and potentially contaminated sites within the WHPA.
- Task 20: Encourage development and use of best management practices.
- Task 21: Request County, State, and private landowners to utilize vegetation practices to protect water quality.
- Task 22: Encourage thorough analysis of groundwater impacts for siting, operations, and reclamation of mines.
- Task 23: The City should inventory decommissioned, abandoned, or unused wells in the six-month, 1- and 5-year time-of-travel zones.
- Task 24: The City could seek to have appropriate agencies require sewer hook-up for all industrial-commercial facilities within the WHPA if sewer services is reasonably available.
- Task 25: Investigate the need to re-routing transport of hazardous materials through the WHPA.
- Task 26: Work with responsible parties to assess adequacy of stormwater systems.

Detailed descriptions of the 26 recommended tasks can be found in Chapter 6 of the WHPP in Appendix 7A.

7.9 Contingency Plan

Contingency planning is needed to ensure that water users will have an adequate supply of potable water in the event of source contamination, natural disasters, or other emergencies. In recognition of this, the state WHP program requires alternative supply planning and emergency spill responses planning in all WHP plans. The City's Alternative Resource Contingency Plan is outlined in Chapter 8 of the WHPP in Appendix 7A.

7.10 Spill/Incident Response Planning

The WHPP outlines and evaluates the spill response procedures and capabilities for the City's WHPA. To conduct this evaluation, major spill response organization were identified. Local response organizations were contacted to determine their response capabilities, back-up assistance, and general understanding of wellhead protection issues.

Spill events vary in size and can involve the release of highly toxic or completely inert materials. Events can occur under conditions were the spill is easily contained or where clean up time is plentiful, or they can occur where surface waters, waterways, or groundwater are under immediate threat. This range of possibilities has prompted a spill responses (and emergency

response) system which is nationwide in scope and can involve federal agencies, yet is designed to handle the more common, small-scale (yet potentially dangerous) spills. This assessment takes into account this range of possible spills and responses.

The ability of the City to affect the protocols and procedures of the national and state responses system is limited. However, the majority of spills are small and require local responses, as a minimum. Therefore, for the purposes of the WHPP development, focus was given to local response capabilities and to the needs associated with these locate response systems.

More detailed information about the City's Spill Response Plan, including spill response organizations, incident management response, and recommended spill response improvements can be found in Chapter 7 of the WHPP in Appendix 7A.

Chapter 8

OPERATIONS AND MAINTENANCE

8.1 Introduction

This chapter provides an overview of the City of Shelton (City) Water System organization, staffing, and operation and maintenance program. This chapter documents existing practices and identifies changes that may improve system operation and maintenance.

8.2 Water System Management and Personnel

The City currently has four full-time water system personnel who operate the water system on a day-to-day basis. The Public Works Department (Public Works) Director, the Street, Water, Equipment Maintenance, and Repair (EM&R) Superintendent, and the City Engineer divide their time between water system operations and other duties of Public Works. Meanwhile, staff members at City Hall input water use information for billing purposes, prepare monthly water bills, collect payments from customers, and perform other water system administrative duties. The Public Works organization chart can be seen in Figure 8.1.

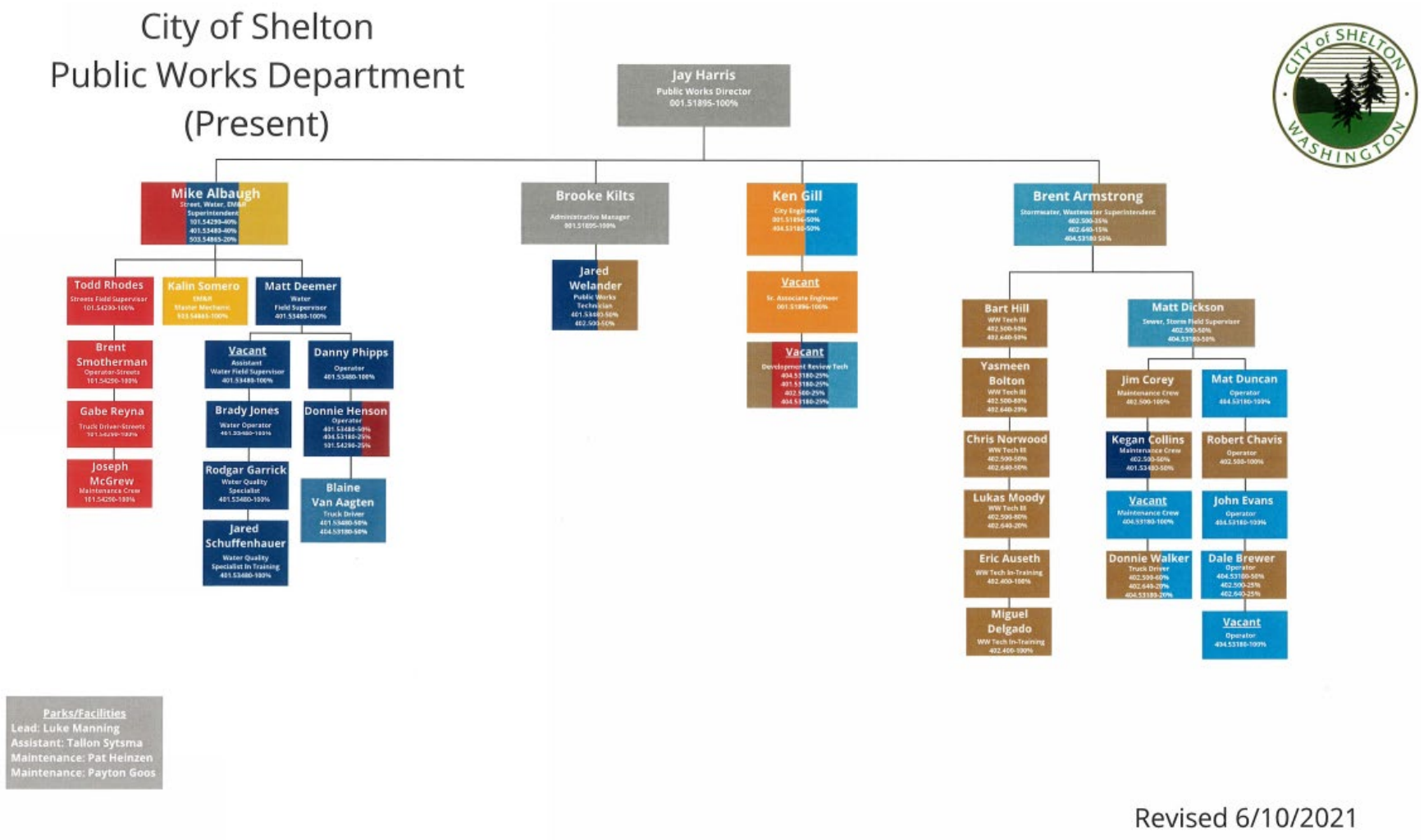


Figure 8.1 Public Works Organizational Chart

8.2.1 Public Works Director, City Engineer, and Superintendent of Public Works

The Public Works Director, City Engineer, and Street, Water, EM&R Superintendent work together to develop the annual operating budget, provide staff oversight, plan reviews of new projects, and respond to customer complaints. The positions are filled as follows:

- Public Works Director: Jay Harris.
- City Engineer: Ken Gill.
- Street, Water, EM&R Superintendent: Mike Albaugh.

8.2.2 Operations Staff

Operations staff conduct the day-to-day work necessary to maintain, operate, test, analyze, and repair the system to sustain proper operation and system longevity. The staff performs monthly meter readings to use when preparing the monthly water bills, issues water meters for new customers, checks that sufficient supplies and tools are available, orders chemical supplies, monitors equipment, and repairs the system.

The Water Field Supervisor (Matt Deemer) coordinates work items and schedules necessary repair and maintenance tasks.

The City's water system is classified as Group 2 (defined in WAC 246-292-040: population served is 1,501 – 15,000). The City is legally required to designate a certified operator who will take charge of the daily operational activities of the public water system, treatment facility, and distribution system. The following staff members have certificates related to the water system operations:

- Matt Deemer (Operator number: 013013).
- Rodgar Garrick (Operator number: 014833).

In addition to the water system staff, the following members are general Public Works operators:

- Dale Brewer.
- Robert Chavis.
- Matt Dickson.
- Mat Duncan.
- John Evans.
- Donnie Henson.
- Brady Jones.
- Danny Phipps.
- Todd Rhodes.
- Brent Smotherman.
- Kallin Somero.
- Tallan Sytsma.

8.2.3 Cross-Connection Control Specialist

The Cross-Connection Control Specialist (CCCS) implements the Cross-Connection Control (CCC) Plan, meaning they are responsible for testing, monitoring, repairing, and recording necessary information pertaining to CCC, as well as preparing the annual Cross-Connection Report in

compliance with the Washington State Department of Health (DOH). The City's CCCS is Rodgar Garrik. The CCCS also works with the City's building inspector to review plans and make sure that approved CCC devices are installed during construction.

8.2.4 City Manager

The City Manager administers City business and oversees and supervises all City departments, including Public Works and the Water Department. The City Manager also keeps the City Council (Council) informed about the status of City programs, as well as current issues, opportunities, and problems that may affect the operations of the water system.

8.2.5 Mayor and City Council

The Mayor and Council sets policy and water system rate schedules, approves ordinances, and serves as a sounding board for public response, feedback, and guidance. The Mayor and Council also approve water system budgets and organizes city-wide priorities.

8.3 Operator Training

The City supports professional training and development and provides funding and time away from work to attend training.

8.4 Operating Procedures and Preventative Maintenance

This section of the chapter summarizes routine system operations, the preventative maintenance program, and equipment, supplies, and chemical listings.

8.4.1 Routine System Operation

The following information describes general operating guidelines for components of the City's water system.

As new facilities are constructed and put into service, more detailed operations and maintenance (O&M) directions are prepared and used to supplement the directions provided below.

8.4.1.1 Startup and Shutdown Procedures

Well Pumps

Prior to starting well pumps, all line valves should be opened. Tools, rags, and other objects that may foul the pumps should be removed prior to energizing the motor.

If work is to be done on the pump, the electric power disconnection switch should be locked out and tagged out in accordance with the City's lockout procedures and Labor and Industries' code requirements.

Standby Generator

Startup and shutdown procedures for the standby generator should be executed in accordance with its manufacturer's recommendations. During maintenance activities on the connected equipment, the generator should be locked out and prevented from starting.

8.4.1.2 Meter Reading

The City reads the meters on a monthly basis. Water Department personnel follow a regular route to manually read the meters.

Flow meter readings are read at the wells on Mondays and the last day of the month (excluding weekends and holidays), manually recorded in a system log book, and logged into the Water Department's computer.

8.4.1.3 System Performance Evaluation

Public Works has developed a set of performance standards to evaluate the City's water system performance. The implemented maintenance system tracks and report the following statistics and criteria on the standards.

8.4.2 Preventive Maintenance Program

A preventive maintenance program is important to maximizing the life span of the water system facilities and equipment and reducing the need for reactive operation of the system. Preventive maintenance tasks for the City's water system include the following.

8.4.2.1 Well pumps

- Inspect and test to ensure proper operation.
- Lubricate as recommended by the manufacturer.
- Test pump controls to ensure proper operation.
- Observe conditions and check statuses on a weekly basis.
- Monitor pumping status continuously through the supervisory control and data acquisition (SCADA) system.
- Read static well levels every Monday.

8.4.2.2 Generator

- Inspect and operate under a load on a weekly basis.
- Maintain in accordance with the manufacturer's recommendation.

8.4.2.3 Source meters

- Test and calibrate on an annual basis.

8.4.2.4 Water treatment system

- Inspect chlorinators and injection pumps daily to ensure proper operation.
- Follow the manufacturer's recommended maintenance requirements.
- Inspect injection line (above ground) for cracks or leaks.
- Account for safety equipment and inspect for proper operation.

8.4.2.5 Reservoirs

- Check for vandalism or unauthorized intrusions every Monday morning.
- Inspect annually for damage to the foundation.
- Inspect and operate roof entry for proper operation.
- Inspect overflow to ensure that the overflow pipe is not blocked or restricted.
- Inspect water level indicator and well pump control system.
- Inspect interior coating at least every 10 years and re-coat as necessary.
- Inspect the structural integrity of elevated towers.
- Inspect the exterior of reservoirs and clean or paint as necessary.

8.4.2.6 Water meters

- Inspect monthly during readings for leaks, condensation, or improper operation, and replace as necessary.
- Test 3/4-inch (in) and 1-in meters every 10 years and replace if necessary: if less expensive, replacing the meters is recommended over testing and repairing them.
- Test and calibrate 2-in or larger meters every 5 to 10 years.

8.4.2.7 Distribution System

Flush distribution lines

Dead-end water lines are susceptible to water quality problems and should be flushed on a quarterly basis or more frequently to remove stagnant water and debris that may have been deposited. Flushing of all dead-end mains should also be accomplished twice a year or more often if water quality complaints are filed.

The City currently flushes dead-end mains at certain locations once a month and other locations depending on customer complaints. The City is in the process of developing a systematic approach to water-main flushing.

The following activities are preventative tasks for the distribution system:

- Conduct leak detection annually and repair water lines where leaks are detected.
- Flush lines on a planned basis to remove collected debris.
- Conduct hydrant flow testing during line flushing operations, then collect and forward the data to the City Engineer for recording: this information can be used to calibrate the water system model.
- Hydrants:
  - Inspect annually for leaks or damage.
  - Paint as necessary to protect them from the elements.
- Valves:
  - Inspect valve boxes for excess debris and remove as necessary to ensure easy valve operation.
  - Exercise annually to ensure proper operation and replace defective valves as soon as possible.
  - Check to see if valves are completely open: a partially-closed valve can significantly reduce peak day operation and fire flow supply.

8.4.2.8 Well Houses

- Keep neat and clean.
- Paint as necessary.
- Inspect venting and equipment manually.

8.4.3 Equipment, Supplies, and Chemical Listing

The City maintains an inventory of parts and supplies, including appurtenances needed to make emergency repairs. The materials on hand are necessary to repair leaks in every size and type of pipe in the system.

The inventory is updated every month as purchase invoices and crew reports are received. The quantity and type of materials in storage are checked periodically against the electronic record to ensure accuracy.

Individual equipment manuals and operations documents are kept near the equipment, as well as material safety data sheets (MSDS) for the chemicals stored in the water system facilities. Appendix 8B includes the O&M Information for SCADA and chlorination systems as well as the Material Safety Data Sheets.

8.4.4 Vendor Contacts

Table 8.1 outlines vendor contacts for services and equipment.

Table 8.1 Vendor Contacts

Vendor Type	Company	Phone Number
Electrician	Wave Length Electric	360-704-8636
Electric Utility	P.U.D. #3	360-426-8255 Ext. 3233
Pipe/Fitting Suppliers	H.D. Fowler Company	360-377-4507
Pipe/Fitting Suppliers	Ferguson Waterworks	360-688-8482
Soil Excavator Contractor	Manke Excavating	360-426-0834
Equipment Rental	United Rentals	360-786-8408
Natural Gas	Cascade Natural Gas	1-800-244-4351

Note:
(1) Contacts as listed in the Emergency Response Plan.

8.5 Water Quality Sampling Procedures and Program

The City is required to test its well sources and distribution system for water quality and to sample its overall system's water quality at representative locations within its distribution system. These sampling tests help the City determine if the public health protection provided to customers is adequate. Sampling requirements are primarily established by federal rule, adopted by the state, and enforced by DOH. Required water quality tests and testing schedules are provided in the Drinking Water Quality Monitoring Program included in Chapter 6.

8.6 Emergency Response Program

A water system emergency includes any event that may degrade the quality or quantity of potable water supplies made available to customers. Minor emergencies consist of broken pipes, sticking valves, broken hydrants, or short-term power outages. Major emergencies affect the entire or large portions of the water system, lower the quality and quantity of the water, and may put the health and safety of the community at risk.

An important component of any emergency response program is an efficient set of notification procedures that inform system customers, the local health department, and the DOH of water quality emergencies. For instance, emergencies such as floods, earthquakes, and other disasters can affect water quality as a result of damage to water system facilities, thereby warranting a boil water order in advance of supply. Appendix 6C includes a suggested boil water notification.

Depending on the emergency type and severity, water system personnel are typically the first to respond to a water system emergency. When an emergency is declared, the Public Works Director is the emergency contact for Public Works.

The City has completed an Emergency Response Plan (see Appendix 8A), which identifies procedures for dealing with a water-system-related emergency and provides contact numbers for personnel.

8.6.1 Water System Personnel, Emergency Call-up List, and Notification Procedures

In the event of a water system emergency, the extent of public notification required is determined by the Public Works Director. Depending on the extent of the emergency, several options are available, which include the following:

- Door-to-door notifications (using door hangers if no one is home).
- Local radio announcements (e.g., KMAS).
- Press releases to the *Shelton-Mason County Journal* and Olympian newspapers.
- Notices on City's website.

Table 8.2 shows an emergency call-up list.

Table 8.2 Emergency Call-up List

Title	Contact	Phone number
Fire/Police		911
Public Works Director	Jay Harris	(360) 490-8567
Street, Water, EM&R Superintendent	Mike Albaugh	(360) 432-5186
Water Field Supervisor	Matt Deemer	(360) 432-5187
Water Quality Specialist	Rodgar Garrick	(360) 810-0842
City Shop	Water Department	(360) 432-5187
Washington State Department of Health	SW Regional Office	(360) 407-6300 (360) 236-3030 (Emergency) (877) 481-4901 (Emergency After hours)
Washington State Department of Ecology		(360) 407-6300 (Emergency After Hours)

8.6.2 Vulnerability Analysis

The Emergency Response Plan includes a vulnerability analysis worksheet for each major facility or component in the City's water system. These worksheets examine the facilities' vulnerability to failure or damage and the resulting consequences. As new facilities are constructed, these analyses must be updated.

The City prepared a Security Vulnerability Self-Assessment as required by the Public Health and Security and Bioterrorism Preparedness and Response Act of 2002. This assessment is considered confidential information and is kept on file at City Hall.

8.6.3 Contingency Operational Plan

The City has identified emergency water sources in the event of a well failure (see Chapter 6). Because all three wells are hydraulically independent, the mechanical failure of any one well won't necessarily cause an emergency. However, since Wells 3 and 4 are located nearby and draw at least some of their water from the same aquifer, contamination of that aquifer could likely affect both wells. Well 1 is also in part in the same aquifer as Wells 3 and 4 and could be susceptible to the same contamination. However, given the physical distance between the wells likely provides the City warning and time to address contamination before reaching all three wells.

Until an actual contamination event occurs, it's impossible to anticipate where the contamination will come from or what it will look like. Therefore, in the event of contamination to the most major sources of water, one or several of the following actions must take place:

- Isolate the contaminated source from the system and utilize the remaining water sources and storage to supply customers.
- Impose outdoor watering restrictions and usage curtailment as required.
- Supplement the storage tanks with water hauled from a nearby public water system or provide bottled water to customers.
- Accelerate the new well in the City's south side in the Angleside Pressure Zone (as mentioned in Chapter 2) if one or more of the existing wells experience long-term loss of use.

8.7 Safety Procedures

Worker safety is the responsibility of all water system employees. The best way to prevent injuries is to sufficiently train workers to identify dangerous situations and stop operations until safer methods can be used. Areas of concern for water system employees include the following:

- Sodium hypochlorite hazards.
- Trench excavation.
- Electrical hazards.
- Asbestos cement (AC) pipe handling.
- Pressure line dangers.
- Confined space entry.
- Chemical dangers.
- Traffic control procedures.
- Animal control methods and procedures.

In 2001, the City prepared an Accident Prevention Manual, which provides proper procedures to minimize the risk of an accident in the workplace, as well as instructions and protocol that should be followed in the event of an accident. A copy of this manual is maintained at the Water Department shops.

The City follows Washington State's safety regulations set forth in the Washington Administrative Code (WAC) 296.155. The City also has first aid kits located in the Public Works building and each Water Department vehicle.

All Water Department staff members have current certifications for first aid and CPR.

8.8 Cross-Connection Control Program

The City has implemented a CCC program whose manual can be found in Appendix 8D. Said manual provides the following information:

- An ordinance that establishes legal authority to implement the CCC program.
- Priorities for conducting the system inventory.
- Consequences for failing to comply with the ordinance.
- Qualified testers of the backflow prevention assemblies (BPAs) and CCCSs.
- Guidelines for assessing the degree of hazard associated with identified cross-connections.
- Guidelines for appropriate application of BPAs.
- Standards for installation and testing of approved BPAs.
- Detailed procedures for conducting hazard surveys of new and existing connections.
- Requirements that state that only approved BPAs shall be installed when required.
- Procedures to check that all installed BPAs are tested as required.
- Methods to provide an adequate system of records.
- General information for water system customers that describes the methods and purpose of the City's CCC program.

8.9 Customer Complaint Response Program

The City maintains a list of complaints and identifies any actions taken to respond to complaints where public health was at risk. When the Water Department receives a complaint, a complaint form is filled out and filed at City Hall.

8.10 Record-Keeping and Reporting

The following procedures are for keeping and compiling records and reports. Table 8.3 outlines the records that are maintained by Water Department staff and the recommended time period to keep the records.

Table 8.3 Record-Keeping and Reporting

Record	Recommended Time Period
Water quality test results	6 years
Annual and monthly consumption records	6 years
Annual and monthly billed volume records	6 years
Complaint log	6 years
Maintenance records	6 years
Injury records	As required by insurance and the state of Washington
Line replacement and upgrades	6 years
Valve exercising records	6 years
Hydrant testing and records	6 years
Pressure testing results	6 years

8.11 Operations and Maintenance Deficiencies

Based on the analysis of the City's O&M Programs, the City does not have any O&M deficiencies that require improvements.

8.12 Operations and Maintenance Recommendations

The America's Water Infrastructure Act (AWIA) of 2018 will require the City to develop a risk assessment and potentially update its emergency response plan by 2021 to meet AWIA requirements. It is recommended the City plan to complete a capital project to assist in meeting the AWIA requirements that are summarized in Table 8.4.

It is recommended that the City has an annual budget to complete necessary repair and replacement projects as needed. This budget would include yearly pavement preservation and rehabilitation projects and GIS, asset management, and work order system.

Additional projects the City has planned related to operations and maintenance include the following:

- Water Meter Advanced Metering Infrastructure (AMI) Upgrade.
- Maintenance Facility Expansion.
- Onsite Chlorine Generation.
- New Generator for Wells 3 & 4.
- High School Tank Re-Coating.

Table 8.4 America's Water Infrastructure Act Requirements

Requirement	Description	Certification Deadline[1]
Risk Assessment	Each community water system serving a population of greater than 3,300 persons shall access the risks to, and resilience of, its system. Such an assessment shall include: 1. The risk to the system from malevolent acts and natural hazards; 2. The resilience of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems (including the security of such systems) which are utilized by the system; 3. The monitoring practices of the system; 4. The financial infrastructure of the system; 5. The use, storage, or handling of various chemicals by the system; and 6. The operation and maintenance of the system.	June 30, 2021
Emergency Response Plan	No later than six months after certifying completion of its risk and resilience assessment, each system must prepare or revise, where necessary, an emergency response plan that incorporates the findings of the assessment. The plan shall include: 1. Strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system; 2. Plans and procedures that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water; 3. Actions, procedures and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals, including the development of alternative source water options, relocation of water intakes and construction of flood protection barriers; and 4. Strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system. Community water systems shall to the extent possible coordinate with local emergency planning committees established under the Emergency Planning and Community Right-To-Know Act of 1986 when preparing or revising an assessment or emergency response plan under the AWIA. Further, systems must maintain a copy of the assessment and emergency response plan for five years after certifying the plan to the USEPA.	December 30, 2021

Note:
(1) Certification deadlines for community drinking water systems serving population of 3,301 - 49,999.
Abbreviation: USEPA - United States Environment Protection Agency.

Chapter 9

CAPITAL IMPROVEMENT PROGRAM

9.1 Introduction

This chapter summarizes the Capital Improvement Program (CIP) for the City of Shelton's (City's) Water System Comprehensive Plan Update. The purpose of this chapter is to describe the CIP projects and programs and to provide the City with a guideline for the planning and budget of its water system. The CIP consists of the cost estimates and schedules for the recommended projects.

The following sections present the cost estimating assumptions, recommended projects, individual project costs, and a summary of the CIP.

9.1.1 Capital Project Categories

Capital Projects were categorized by the type of infrastructure involved, including:

- Supply (S): New well projects and improvement projects related to existing sources of supply.
- Storage (ST): New reservoir projects and improvement projects related to existing storage reservoirs.
- Pressure Zone (PZ): Improvement projects that consist of changes to the operations of pressure zones.
- Pump Station (PS): New pump station projects and improvement projects related to existing pump stations.
- Distribution System (D): Projects that contain new pipe and pipe upsizing projects.
- General (G): General water system projects and annual projects that occur system-wide and include repair and replacement (R&R) projects and fire flow response projects.

9.1.2 Capital Project Types

Projects were allocated into three types to support development of rates and standard development charges (SDC):

1. **Growth** – Projects that provide additional system capacity to meet future demand growth. These projects are typically funded by connection fees and the developer community.
2. **R&R** – Non-growth-related projects that involve replacing or maintaining existing infrastructure without increasing capacity or level-of-service. These projects are typically funded by rates.
3. **Level of Service** – Projects that increase level-of-service (i.e., redundant pumping, backup power, fire flow, system reliability, etc.) of existing infrastructure. In some cases the City's current fire flow standards are higher than those in place when the existing pipes were installed. Projects that upsize pipes to be able to convey current fire flow

volume requirements are considered system improvements. These projects are typically funded by rates.

Projects may include elements of multiple capital project types. Each project was defined as one or more of the three project types by assigning a percentage of the total project cost to each project type. The allocations between multiple types were made based on professional judgment.

9.2 Cost Estimating Assumptions

9.2.1 Cost Estimate Level

The CIP cost estimates presented in this chapter are Class 5 estimates, as established by the American Associate of Cost Estimators (AACE). Class 5 estimates are budget level estimates. Actual costs may vary from these estimates by -30 percent to +50 percent. These costs were determined using both Carollo Engineers, Inc. (Carollo's) understanding of project locations and current conditions and the City's costs for similar and recently constructed capital projects. The cost estimates have been prepared for the general master planning purposes. Capital costs, or "total project costs", are presented in the CIP.

All costs are in 2019 dollars. The Engineering News Report (ENR) Construction Cost Index for a 20-city average for November 2019 is 11381. Estimates are subject to change as the project design matures. Cost of labor, materials, and equipment may vary in the future.

9.2.2 Pipeline Unit Costs

Pipeline unit cost assumptions are shown in Table 9.1. These costs were developed from recent construction costs of various water pipelines. To be conservative, these unit costs assume open-trench construction in improved areas. If trenchless construction is possible for some projects, the cost estimates may need to be modified. Costs include pavement cutting, excavation, hauling, shoring, pipe materials and installation, backfill material and installation, and pavement replacement. The unit costs are for "typical" field conditions with construction in stable soil at a depth ranging between 3 to 5 feet. Contingencies are not included in these assumptions.

Table 9.1 Pipeline Unit Cost

Pipe Diameter (inches)	Construction Cost ($/LF)
8	$180
10	$200
12	$220
16	$240
18	$260
24	$310

Note:
Abbreviation: LF – linear feet.

9.2.3 Supply Costs

Table 9.2 outlines the supply unit cost assumptions. New supply project costs were developed based on typical costs from past projects and by the City. Contingencies are not included in these assumptions.

Table 9.2 Supply Unit Costs

Supply	Cost (unit)	Notes
New Groundwater Well	$1,500 (per gpm)	Based on engineer estimate and previous projects. Includes a production well, site work, a structure, and all mechanical and electrical equipment.

Note
Abbreviations: gpm - gallons per minute.

9.2.4 Storage Costs

New storage project costs were developed based on typical costs from past projects. Conceptual costs for reservoirs vary by type: ground, standpipe, and elevated. Costs are estimates based on reservoir volume in gallons (gal), as presented in Table 9.3. Unit construction costs include site work, a structure, mechanical and electrical equipment, and piping to connect to the distribution system. Storage costs are sensitive to site-specific geotechnical and seismic considerations; therefore, it is recommended that a reservoir siting study that addresses these issues be conducted at the initiation of a new storage project. Contingencies are not included in these assumptions.

Table 9.3 Reservoir Unit Costs

Reservoir Type	Cost per gallon ($/gal)
Ground	$1.5
Elevated	$4

Note:
(1) Reservoir unit costs are for construction only.

9.2.5 Pump Station Costs

Pump Station costs were developed based on typical costs from past projects. Cost estimates are based on pump horsepower (hp), as presented in Table 9.4. Contingencies are not included in these assumptions.

Table 9.4 Pump Station Costs

Pump Size (hp)	Cost per HP ($/hp)
< 200 hp	$14,800
>= 200 hp	$10,700

9.2.6 Miscellaneous Costs

Other costs for the CIP include a generator and a pressure reducing valve (PRV) station. Table 9.5 outlines the conceptual cost, which are estimated based on past projects. Contingencies are not included in these assumptions.

Table 9.5 Miscellaneous Costs

Type	Unit Cost
Generator	$200,000 (per 100 hp)
PRV Station	$200,000 (each)

9.2.7 Cost Factors and Contingency

To estimate a total project cost, cost factors and contingencies were added to the construction costs. Table 9.6 summarizes the contingency costs used for the cost estimate. The total project costs include an additional 30 percent for construction contingency, 30 percent for engineering, legal, and design costs, and 10 percent for administrative costs.

Table 9.6 Contingency Costs

Contingency	Percent of Subtotal Cost
Construction Contingency	30%
Engineering/Legal/Design Costs	30%
City Admin Costs	10%

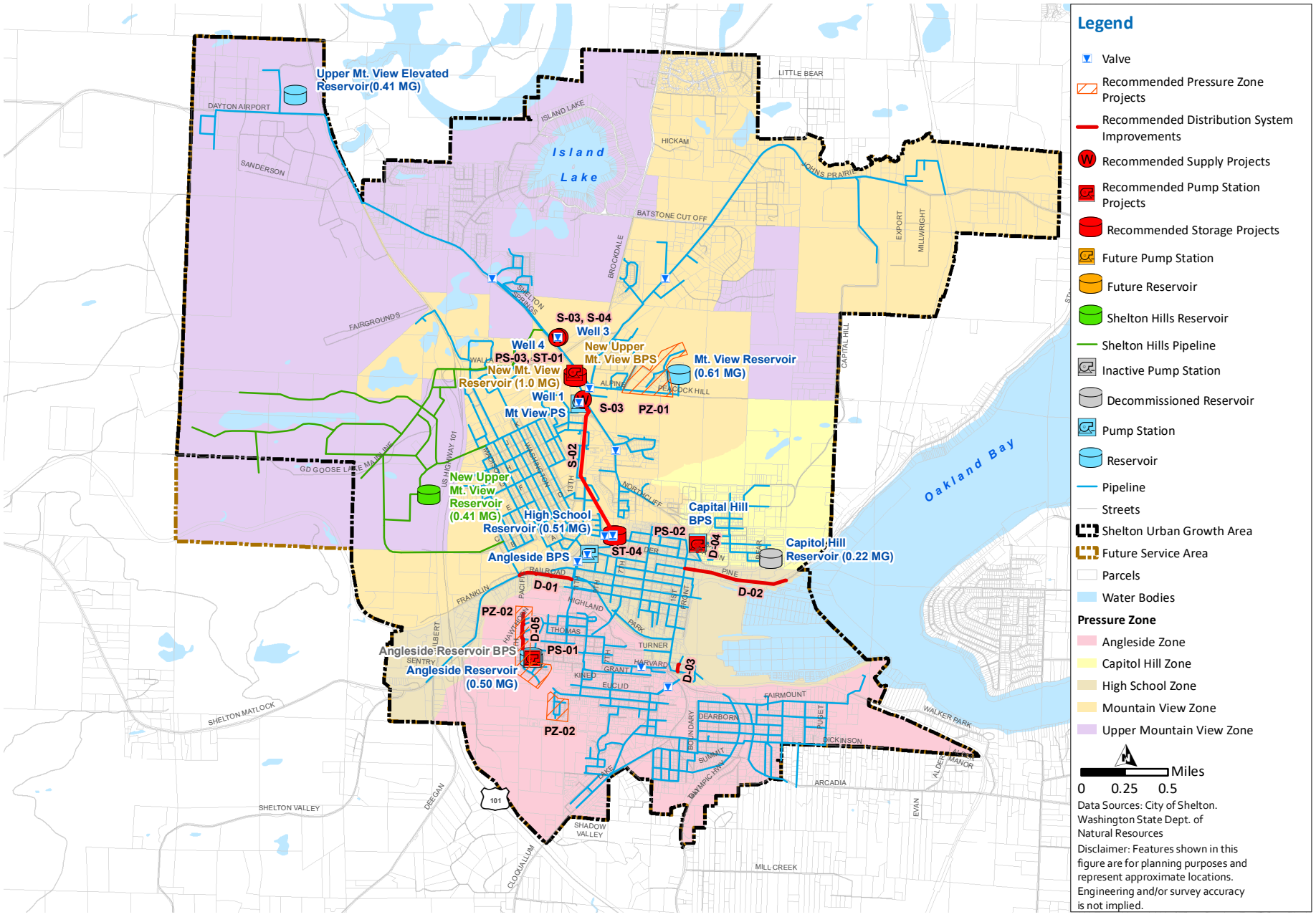
9.3 Cost Summary

CIP projects were identified based on the analyses presented in previous chapters. The CIP projects summarized in Table 9.7 are in 2019 dollars and have not been escalated. The table presents the costs for the short-, and long-term planning horizons. Additionally, the table separates project costs between the capital project types (i.e., Growth, R&R, and Improvement). The table provides a subtotal, total project cost, and average annual cost for all CIP projects. Figure 9.1 shows the CIP project locations.

Table 9.7 Capital Improvement Program Summary

Capital Improvements Program Summary																				
Project		CIP Project Subtotal[1]	Total CIP Cost Estimate	CIP Phasing										Short-term (2021-2030)	Long-term (2031-2040)	Project Type		
				2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			Growth	Repair & Replacement	Level of Service
General																		
G-01	Hydrant Improvements	$ 250,000	$ 424,000	$ 106,000	$ 106,000	$ 106,000	$ 106,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 424,000	$ -	0%	100%	0%
G-02	Repair & Replacement	$ 2,000,000	$ 3,400,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 170,000	$ 1,700,000	$ 1,700,000	0%	100%	0%
G-03	Water System Plan	$ 400,000	$ 560,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 560,000	0%	100%	0%
G-04	Water Meter AMI Upgrade[2]	$ 2,250,000	$ 850,000	$ 850,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 850,000	$ -	0%	100%	0%
G-05	Maintenance Facility Expansion[2]	$ 180,000	$ 530,000	$ 180,000	$ -	$ 350,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 530,000	$ -	0%	0%	100%
G-06	AWIA Risk and Resiliency Assessment[2]	$ 60,000	$ 60,000	$ 60,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 60,000	$ -	0%	0%	100%
G-07	AWIA Required Water Emergency Response Plan[2]	$ 60,000	$ 60,000	$ 60,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 60,000	$ -	0%	0%	100%
G-08	Rate Study[2]	$ 20,000	$ 20,000	$ 20,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,000	$ -	0%	0%	100%
	General Subtotal		**$ 5,904,000**	**$ 1,446,000**	**$ 276,000**	**$ 626,000**	**$ 276,000**	**$ 170,000**	**$ 170,000**	**$ 170,000**	**$ 170,000**	**$ 170,000**	**$ 170,000**	**$ 3,644,000**	**$ 2,260,000**			
Supply																		
S-01	New Well in Angleside	$ 2,130,000	$ 3,551,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,551,000	50%	0%	50%
S-02	Well 1 Rehabilitation and Pipeline Pressurization[2]	$ 1,008,000	$ 1,008,000	$ 504,000	$ 504,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,008,000	$ -	0%	0%	100%
S-03	Onsite Chlorine Generation[2]	$ 200,000	$ 200,000	$ -	$ -	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000	$ -	0%	0%	100%
S-04	New Generator for Wells 3 & 4[2]	$ 125,000	$ 125,000	$ -	$ 125,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 125,000	$ -	0%	100%	0%
	Supply Subtotal		**$ 4,884,000**	**$ 504,000**	**$ 629,000**	**$ -**	**$ 200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,333,000**	**$ 3,551,000**			
Pressure Zone																		
PZ-01	Mountain View PZ Booster Zone	$ 950,000	$ 1,615,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,615,000	0%	0%	100%
PZ-02	Angleside PZ Pressure Improvements	$ 798,400	$ 1,357,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,357,000	0%	0%	100%
	Pressure Zone Subtotal		**$ 2,972,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,972,000**			
Storage																		
ST-01	New Mt. View Ground Storage Tank	$ 1,830,000	$ 3,111,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,037,000	$ 1,037,000	$ 1,037,000	$ 3,111,000	$ -	50%	0%	50%
ST-02	New Angleside Reservoir	$ 2,570,000	$ 4,369,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,369,000	50%	0%	50%
ST-03	Shelton Hills Elevated Tank[3]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		100%	0%	0%
ST-04	High School Tank Re-Coating[2]	$ 310,000	$ 500,000	$ -	$ 344,000	$ -	$ -	$ -	$ 156,000	$ -	$ -	$ -	$ -	$ 500,000		0%	100%	0%
	Storage Subtotal		**$ 7,980,000**	**$ -**	**$ 344,000**	**$ -**	**$ -**	**$ -**	**$ 156,000**	**$ -**	**$ 1,037,000**	**$ 1,037,000**	**$ 1,037,000**	**$ 3,611,000**	**$ 4,369,000**			
Pump Station																		
PS-01	Angleside Reservoir PS Control Improvements	$ 450,000	$ 765,000	$ -	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 665,000	0%	0%	100%
PS-02	Capitol Hill Pressure Improvements	$ 2,030,000	$ 3,451,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,451,000	0%	0%	100%
PS-03	Upper Mt. View Booster Pump Station	$ 1,850,000	$ 3,145,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,145,000	0%	0%	100%
	Pump Station Subtotal		**$ 7,361,000**	**$ -**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 7,261,000**			
Distribution Pipeline																		
D-01	W Railroad Ave Pipe Upsize[2]	$ 980,000	$ 980,000	$ -	$ 980,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 980,000	$ -	0%	0%	100%
D-02	E Pine St Pipe Upsize[3]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	0%	0%	100%
D-03	Alleghany St Pipe Upsize[3]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	0%	0%	100%
D-04	Capitol Hill Hydrant Lateral Relocation	$ 54,000	$ 92,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 92,000	0%	0%	100%
D-05	S 16th St Pipe Project	$ 144,000	$ 245,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 245,000	0%	0%	100%
	Distribution Pipeline Subtotal		**$ 1,317,000**	**$ -**	**$ 980,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 980,000**	**$ 337,000**			
CIP Total			**$ 30,418,000**	**$ 1,950,000**	**$ 2,329,000**	**$ 626,000**	**$ 476,000**	**$ 170,000**	**$ 326,000**	**$ 170,000**	**$ 1,207,000**	**$ 1,207,000**	**$ 1,207,000**	**$ 9,668,000**	**$ 20,750,000**	**$ 5,515,500**	**$ 5,859,000**	**$ 19,043,500**
Annual Cost			$ 1,521,000	$ 1,950,000	$ 2,329,000	$ 626,000	$ 476,000	$ 170,000	$ 326,000	$ 170,000	$ 1,207,000	$ 1,207,000	$ 1,207,000	$ 967,000	$ 2,075,000	$ 276,000	$ 293,000	$ 952,000

Notes:
(1) CIP Project Subtotal is project cost before contingency costs are added.
(2) CIP Project cost provided by City.
(3) Projects are developer-driven so costs are no included in the City's CIP Program.



Legend

- Valve
- Recommended Pressure Zone Projects
- Recommended Distribution System Improvements
- Recommended Supply Projects
- Recommended Pump Station Projects
- Recommended Storage Projects
- Future Pump Station
- Future Reservoir
- Shelton Hills Reservoir
- Shelton Hills Pipeline
- Inactive Pump Station
- Decommissioned Reservoir
- Pump Station
- Reservoir
- Pipeline
- Streets
- Shelton Urban Growth Area
- Future Service Area
- Parcels
- Water Bodies

Pressure Zone

- Angleside Zone
- Capitol Hill Zone
- High School Zone
- Mountain View Zone
- Upper Mountain View Zone

Miles
0 0.25 0.5

Data Sources: City of Shelton. Washington State Dept. of Natural Resources

Disclaimer: Features shown in this figure are for planning purposes and represent approximate locations. Engineering and/or survey accuracy is not implied.

Figure 9.1 Capital Improvement Program Projects

9.4 Project Descriptions

Project descriptions for each of the recommended CIP projects, including a location map (if applicable) and project cost summary can be found in Appendix 9A.

9.5 CIP Cost Summary

The CIP projects were summarized by project type and category in Tables 9.8 and 9.9, respectively. The total Water CIP cost over the next 20 years is approximately $30.4 million, which equates to approximately $1,521,000 annually in current dollars. Of the total cost, $6.7 million is budgeted for the short-term phase and approximately $20.8 million is budgeted for the long-term phase.

When considering CIP costs by project type, approximately 63 percent of the CIP costs are Level of Service projects. R&R projects make up approximately 19 percent of the CIP costs, and growth projects make up about 18 percent of the CIP costs.

When considering CIP costs by project category, as shown in Table 9.9, approximately 19 percent of the CIP costs occur from general projects. Storage projects make up approximately 26 percent of the CIP, and pump station projects make up approximately 24 percent of the CIP.

Table 9.8 CIP Summary by Project Type

Project Type	Total CIP Cost Estimate	CIP Phasing	
		Short-term (2021 – 2030)	Long-term (2031 – 2041)
Growth	$ 5,515,500	$ 1,555,500	$ 3,960,000
Repair & Replacement	$ 5,859,000	$ 3,599,000	$ 2,260,000
Level of Service	$ 19,043,500	$ 4,513,500	$ 14,530,000
Total Cost	**$ 30,418,000**	**$ 9,668,000**	**$ 20,750,000**
Annual Cost	*$ 1,521,000*	*$ 967,000*	*$ 2,075,000*

Table 9.9 CIP Summary by Project Category

Project Category	Total CIP	Percentage
General	$ *5,904,000*	*19.4%*
Supply	$ *4,884,000*	*16.1%*
Pressure Zone	$ *2,972,000*	*9.8%*
Storage	$ *7,980,000*	*26.2%*
Pump Station	$ *7,361,000*	*24.2%*
Distribution Pipeline	$ *1,317,000*	*4.3%*
Total	**$ 30,418,000**	**100%**

Chapter 10

FINANCIAL PLAN

10.1 Introduction

This chapter summarizes the financial status of the City of Shelton's (City) water utility and provides a cursory evaluation of the City's ability to finance necessary capital improvements identified in the Capital Improvement Program (CIP) as outlined in Chapter 9. Financial status of the City's water utility, funding required to finance the scheduled improvements, and the impact of water system improvements on water rates are presented.

10.2 Historical Financial Performance

This section summarizes the current water rates, fees, and charges, the historical financial operations, and outstanding debts.

10.2.1 Current Water Rates, Fees, and Charges

The City has the following rate categories for their water system customers:

- Single-Family Residential.
- Multi-Family.
- Commercial.
- Irrigation.
- Wholesale.

10.2.1.1 Monthly Meter Charge

The monthly charge for customers is based on meter size and on customer type, as shown in Table 10.1.

Table 10.1 2020 Water Base Rate Monthly Meter Charge

Meter Size (inches)	Single Family	Multifamily	Commercial	Irrigation	Private Fire Line
3/4	$14.11	$12.44	$12.02	$37.28	$9.02
1	$18.33	$15.53	$14.84	$57.03	10.79
1.5	$27.23	$21.64	$20.24	$104.39	$13.90
2	$40.76	$31.82	$29.60	$164.26	$19.93
3	$100.38	$82.48	$78.05	$347.63	$55.25
4	$139.61	$111.64	$104.68	$525.90	$72.23
6	$242.45	$186.54	$172.64	$1,014.79	$114.39

Note:
(1) Source: Shelton Municipal Code, Title 15, Chapter 15.28: Water Service – Rates and Charges (December 2019).

10.2.1.2 Consumption Charge

In addition to the monthly charge, customers also pay a usage-based consumption charge per cubic feet (CF) water consumed. Table 10.2 shows the City's consumption charges for each

customer type. Single-family residential customers have a three-block tier system based on their volume of water consumed. Multi-family, commercial, irrigation, and wholesale customers are charged a uniform rate per CF of usage.

Table 10.2 2020 Consumption Charges

Customer Type	Volume of Water	Consumption Charge (per CF)
Single-Family Residential	0 to 600 CF	$0.0295
	601 to 1,500 CF	$0.0354
	1,500 or greater CF	$0.0439
Multi-Family		$0.0343
Commercial		$0.0338
Irrigation		$0.0439
Wholesale		$0.0305

Note:
(1) Source: Shelton Municipal Code, Title 15, Chapter 15.28: Water Service – Rates and Charges (December 2019).

10.2.1.3 Senior Citizen and Disability Discounts

Eligible low-income senior citizens and disabled persons living in single-family residences receive a discount of seventeen percent of the basic meter charge per month.

10.2.1.4 General Facility Charge

General facility charges (GFC) are one-time charges paid by new developments to reimburse existing utility customers for costs previously paid to construct current system capacity improvements or to help finance planned future growth-related capacity improvements. The charges help ensure that all customers connecting to the system bear an equitable share of costs that have been or will be invested to provide capacity needed to serve them and any further growth-related expansion. GFC revenues are deposited in the Utility's capital fund and are used to help support current and future capital expenditures. The current GFC rates are shown in Table 10.3.

Table 10.3 Current General Facility Charges

Water Meter Size	Fee
3/4"	$1,260
1"	$3,150
1.5"	$6,300
2"	$10,080
3"	$18,900
4"	$31,500
6"	$63,000
8"	$100,800

Note:
(1) Source: City of Shelton Master Fee Schedule (effective date: January 1, 2021).

10.2.2 Historical Financial Operations

The City's operating revenues for the years 2016 to 2019 are summarized in Table 10.4. Table 10.4 also includes the City's 2020 budget operating revenues. The largest revenue generating item is water sales. Other revenue the City receives is through GFCs, investment interest, and miscellaneous revenue, which includes penalties, service charges, leases, and rentals.

Table 10.5 shows a summary of the City's operating expenses from 2016 to 2019. Table 10.5 also shows the City's 2020 budget operating expenses. Operating expenses include salaries and wages, personnel benefits, Interfund payments, and other miscellaneous expenses. Operating expenses also include debt service payments, which are shown in Table 10.5.

10.2.3 Outstanding Debt

The City holds the following outstanding bonds:

- **Water Revenue & Re-Funding Bonds:** The principal and interest payment for this bond are approximately $245,000 per year. This bond is a revenue bond with an interest rate of 3.0 percent and is payable to US Bank. The bond was initiated on July 10, 2013 and has a maturity date of December 1, 2032. The beginning balance in 2020 for the bond was approximately $2,385,000.
- **Upper Mountain View Pressure Zone Loan:** The principal and interest payment for this loan are approximately $130,000 per year. This loan is a Washington State Public Works Board (PWB) Drinking Water State Revolving Fund (DWSRF) Loan with an interest rate of 1.0 percent and is payable to the Washington State Department of Health (DOH). This loan was initiated on October 1, 2014 and has a maturity date of October 1, 2037. The beginning balance in 2020 for the loan was approximately $1,993,662.

Table 10.4 Historical Operating Revenue

Operating Revenue	2016	2017	2018	2019	2020 Budget
Water Sales	$1,778,129	$1,816,921	$1,929,464	$2,110,192	$2,347,090
Other Revenue	$1,251,450	$137,549	$390,444	$409,068	$127,000
Total	**$3,029,579**	**$1,954,469**	**$2,319,907**	**$2,519,260**	**$2,474,090**

Notes:
(1) Source: City's Financial Statements from 2015-2019 Budget Report.
(2) Other revenue includes investment interest, connection charges, and miscellaneous revenue.

Table 10.5 Historical Operating Expenses

Operating Expenses	2016	2017	2018	2019	2020 Budget
Operating Expenses	$2,996,121	$1,430,224	$1,574,906	$1,790,854	$2,009,610
Debt Service Payments	$233,940	$245,138	$420,916	$373,991	$373,990
Total	**$3,230,060**	**$1,675,362**	**$1,995,823**	**$2,164,844**	**$2,383,000**

Notes:
(1) Source: City's Financial Statements from 2015-2019 Budget Report.
(2) Operating expenses include salaries and wages, personnel benefits, Interfund payments, and other expenses. Does not include depreciation.

10.3 Financial Policies

Title 15 of the City's Municipal Code, which can be found in Appendix 10A, establishes fees for service, and general rules and regulations for the service and extension of service from the water system of the City. Additional water fees and fines can be found in the City's Master Fee Schedule, also included in Appendix 10A.

The City's Proposed 2021 Budget, which can be found in Appendix 10A, outlines the City's strategic plan to providing valuable government services in a cost-effective and efficient manner. The City's Proposed 2021 Budget includes budgetary information about the Water Fund.

Additionally, the City has draft Fund Balance Reserves and Debt Management policies that are also included in Appendix 10A.

10.4 Financial Forecast

The financial forecast, or revenue requirement analysis, is a comprehensive test of a utility's fiscal health, scrutinizing the adequacy of current revenues, and setting the basis for rate planning. It reviews the utility's revenues, expenses, debts, and reserve policies, assesses the viability of each metric going forward. Where cash flows and balances are insufficient, the revenue requirement analysis determines the needed additional cash flows to meet all funding goals. For this analysis, two revenue sufficiency tests have been developed to reflect the financial goals and constraints of the City: cash needs must be met, and debt coverage requirements must be realized. The two tests are as follows:

- The **cash flow sufficiency** test looks for a net positive cash flow at the end of each fiscal year. This test looks at whether revenues exceed expenses; when they do not, this test recommends additional revenue.
- The second test is the **debt service coverage test**. Utility bond issuances regularly include a stipulation that the agency maintain sufficient cash flows to cover the planned debt service, plus an additional percent of that debt service, typically between 20 percent and 50 percent. For example, a 1.0 coverage factor would imply that no additional cushion is required. A 1.25 coverage factor means revenue must be sufficient to pay operations and maintenance (O&M) expenses, annual revenue bond debt services, plus an additional 25 percent of annual revenue bond debt service payments. Targeting a higher coverage factor can help the City achieve a better credit rating and provide lower interest rates for future debt issues. If cash flow falls below this ratio, this test recommends additional revenue.

The revenue requirement analysis looks at both of these tests for any needed revenue increases. As there are many assumptions in the analysis, the projected results can vary from the actual data depending on factors like actual customer use, demand projection, and growth. Therefore, this high-level projection should be compared with actual values and adjusted accordingly.

10.4.1 Projected Capital Improvement Projects

The water CIP projects were allocated into three project types to support development of rates and standard development charges:

- **Growth**: Projects that provide additional system capacity to meet future demand growth. These projects are typically funded by connection fees and the developer community.

- **Repair & Replacement (R&R)**: Non-growth-related projects that involve replacing or maintaining existing infrastructure without increasing capacity or level-of-service. These projects are typically funded by rates.
- **Level of Service:** Projects that increase level-of-service (i.e., redundant pumping, backup power, fire flow, system reliability, etc.) of existing infrastructure. These projects are typically funded by rates.

The CIP projects were then allocated to planning years within the 2021-2030 period based on available funding and projected timeline as outlined by the City. The projects were assumed to take no more than three years to complete. The projects that the City plans to complete in the next ten years are:

- G-01: Hydrant Improvements (2021-2024).
- G-02: Repair & Replacement (Annual).
- G-04: Fixed Base Radio Read (2021).
- G-05: Construction Laydown Yard (2021, 2023).
- G-06: America's Water Infrastructure Act (AWIA) Risk and Resiliency Assessment (2021).
- G-07: AWIA Required Water Emergency Response Plan (2021).
- G-08: Rate Study (2021).
- S-02: Well 1 Rehabilitation and Pipeline Pressurization (2021-2022).
- S-03: Onsite Chlorine Generation (2024).
- S-04: New Generator for Well 3 & 4 (2022).
- ST-01: New Mt. View Ground Storage Tank (2028-2029).
- PS-01: Angleside Reservoir PS Control Improvements Phase 1 (2022).
- D-01: W Railroad Ave Pipe Upsize (2022).

Table 10.6 summarizes the cost of the CIP projects listed above by project type.

10.4.2 Projected Operating Revenues and Expenditures

Using the City's forecast factors and assumptions, operating revenues and expenditures were projected to 2030, as summarized in Tables 10.7 and 10.8, respectively.

The proposed 2021-2023 biennial capital budget for Washington State includes $2.05 million for the rehabilitation of Well 1, including the conversion of the water transmission main. This is included in the City's revenue for 2021 as shown in Table 10.7 as a $2.05 million grant.

10.4.2.1 Assumptions

The City provided or agreed upon the following assumptions when projecting out the water fund's financial projections:

- **General Inflation:** For revenues and expenditures, a 3.0 percent annual inflation rate was agreed upon by City staff.
- **Water Growth Rate:** From the Plan's demand assumptions, it was calculated that a 2.4 percent increase in annual consumption would be applied to the projected water sales. Conservation is not factored into this percentage.
- **Benefits/Salary/Cost of Living Adjustment**: The City assumes that salary increases will be approximately 2.5 percent annually, and benefits will have a 4.0 percent annual increase.
- **Interest:** The City assumes interest will be 0.5 percent annually.

- **GFC Fee Escalation**: The City assumes that GFC fee escalation will equal the general inflation rate of 3.0 percent. Due to a discrepancy between the GFCs in the City budget and the fee schedule, the GFCs from 2016 to 2019 were averaged to determine an assumed GFC for 2019 of approximately $55,970. This average GFC was used to project future GFCs through the 2029 planning year.
- **New Debt:** For planning purposes, it is assumed that no new debt will be issued to fund capital improvement projects.

10.4.2.2 Rate Increases

The projected water sales revenues shown in Table 10.7 include an "across the board" rate revenue increase, which assumes the revenue collected from the metered water sales the previous year will increase by a certain percentage, and were not calculated for each customer category. The City adopted a ten percent rate increase through 2022, and a three percent increase through 2023. A three percent increase is assumed from 2024 through 2030.

10.4.2.3 Reserves

As stated in the City's Draft Fund Balance Reserves Policy, which can be found in Appendix 10A, the Water Operating Fund will strive to maintain a fund balance equal to 20 percent of the current year budgeted expenses.

10.4.2.4 Cash Flow

Table 10.9 shows the 10-year projected operating cash flow for the water utility, which subtracts the total operation and maintenance and expenses and any issued debt from the total operating revenues, as shown in the previous tables. The result is that the City's net revenue fluctuates between negative and positive over the 10-year planning period.

Based on the current water utility status, the assumptions provided by the City, and increasing the water rate revenue as indicated, the City will have not an adequate amount of funds to cover the projected operating expenditures and capital projects for the 2022-2025 planning years but has adequate amounts of funds to cover the projected operating expenditures and capital projects for the 2026-2030 planning years.

10.4.3 Financial Forecast – Water Rate Increases, No New Debt

Figure 10.1 shows the City's financial performance through 2030. The forecast assumes the implementation of rate increases of 10 percent in 2021 and 2022 and 3 percent increase from 2023 to 2030. The financial forecast also assumes that no new debt will be issued. The water rate increase is based on the City's Municipal Code forecasted rate increase prices. In Figure 10.1, the stacked bar lines represent the City's operational expenses, CIP, and existing debt service. The City's revenue, which includes the proposed rate increases and the $2.05 million grant for the rehabilitation of Well 1 from Washington State in 2021, is shown as the solid blue line. The presented revenues include water sales, other operating revenues, and the grant. Revenues increase in 2021 due to the grant, drop in 2022 after the grant is implemented, and then are projected to increase due to the rate increases through 2030.

The City's ending fund balance is shown as the solid orange line. The dashed red line represents the City's minimum ending fund balance equal to 20 percent of annual budgeted operating expenditures and debt service payments. The financial projections indicate that the minimum fund balance requirement will be met every year.

Table 10.6 Projected CIP Projects Expenditures

CIP Project Category	2020 Budget	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Growth Projects[1]	$0	$0	$0	$0	$0	$0	$0	$0	$518,500	$518,500	$518,500
Repair & Replacement Projects[2]	$0	$1,126,000	$745,000	$276,000	$276,000	$170,000	$326,000	$170,000	$170,000	$170,000	$170,000
Level of Service Projects[2]	$0	$824,000	$1,584,000	$350,000	$200,000	$0	$0	$0	$518,500	$518,500	$518,500
Total CIP	**$0**	**$1,950,000**	**$2,329,000**	**$626,000**	**$476,000**	**$170,000**	**$326,000**	**$170,000**	**$1,207,000**	**$1,207,000**	**$1,207,000**

Notes:
(1) Projects are assumed to be funded by connection fees.
(2) Projects are assumed to be funded by rates.

Table 10.7 Projected Operating Revenue

Operating Revenue	2020 Budget	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Sales[2]	$2,347,090	$2,376,920	$2,677,370	$2,823,870	$2,978,390	$3,141,370	$3,313,250	$3,494,560	$3,685,780	$3,887,480	$4,100,190
GFC	$0[3]	$55,969	$57,648	$59,377	$61,159	$62,993	$64,883	$66,830	$68,835	$70,900	$73,027
Other Revenue	$127,000	$299,170	$298,670	$307,410	$317,710	$330,270	$342,940	$357,330	$367,490	$378,630	$299,170
Debt Proceeds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Grant[4]	$0	$2,050,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total	**$2,474,090**	**$4,771,859**	**$3,034,188**	**$3,181,917**	**$3,346,959**	**$3,522,073**	**$3,708,403**	**$3,904,330**	**$4,111,945**	**$4,325,870**	**$4,551,847**

Notes:
(1) Source: City's Financial Statements from 2015-2019 Budget Report and projections based on financial assumptions.
(2) Water sales include proposed rate increases.
(3) GFCs were not included in the 2020 budget received from the City.
(4) Washington State's proposed 2021-2023 biennial capital budget includes $2.05 million for the rehabilitation of Well 1, including the conversion of the water transmission main.

Table 10.8 Projected Operating Expenditures

Operating Expenses	2020 Budget	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Expenses	$2,009,610	$2,069,900	$2,132,000	$2,196,100	$2,262,100	$2,330,300	$2,400,500	$2,472,900	$2,547,500	$2,624,400	$2,703,600
CIP	$0	$1,950,000	$2,329,000	$626,000	$476,000	$170,000	$326,000	$170,000	$1,207,000	$1,207,000	$1,207,000
Debt Service Payments	$373,390	$372,926	$372,318	$371,367	$368,859	$370,945	$367,619	$364,086	$365,347	$366,196	$366,196
Total	**$2,383,000**	**$4,392,826**	**$4,833,318**	**$3,193,467**	**$3,106,959**	**$2,871,245**	**$3,094,119**	**$3,006,986**	**$4,119,847**	**$4,197,596**	**$4,276,796**

Notes:
(1) Source: City's Financial Statements from 2015-2019 Budget Report and projections based on financial assumptions.
(2) Water sales include proposed rate increases.
(3) Expenses are rounded.

Table 10.9 Summary Projected Cash Flow (2020-2030)

	2020 Budget	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
(+) Total Operating Revenues	$2,474,090	$4,771,859	$3,034,188	$3,181,917	$3,346,959	$3,522,073	$3,708,403	$3,904,330	$4,111,945	$4,325,870	$4,551,847
(-) Total Operating Expenditures	$2,383,000	$4,392,826	$4,833,318	$3,193,467	$3,106,959	$2,871,245	$3,094,119	$3,006,986	$4,119,847	$4,197,596	$4,276,796
Total Use of Funds	**$91,090**	**$379,033**	**($1,799,130)**	**($11,549)**	**$240,000**	**$650,829**	**$614,284**	**$897,343**	**($7,903)**	**$128,273**	**$275,050**
Ending Fund Balance	**$2,494,439**	**$2,873,472**	**$1,074,342**	**$1,062,793**	**$1,302,792**	**$1,953,621**	**$2,567,905**	**$3,465,249**	**$3,457,346**	**$3,585,619**	**$3,860,669**

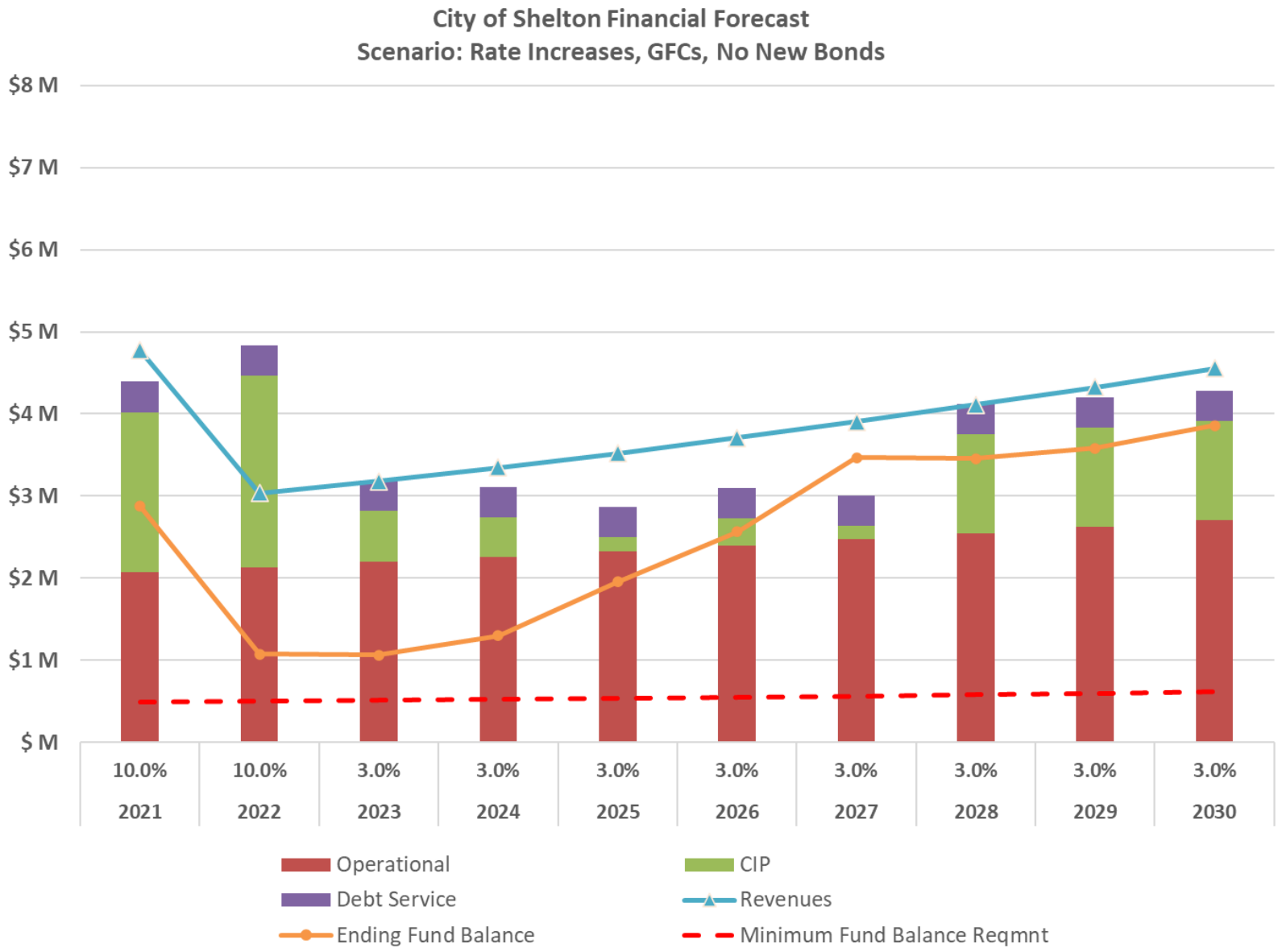


Figure 10.1 Financial Forecast

10.5 Available Funding Assistance and Financing Resources

The ten-year planning period shows that the City will have adequate funding for the anticipated short-term projects shown in the capital improvement plan with the assumed rate increases and the budget from Washington State to rehabilitate Well 1. It is important for the City to understand what funding assistance and financing resources are available to help fund the CIP. The following is a summary of some of the City's resources, which may be pursued to fund the CIP.

10.5.1 Grants and Low Cost Loans

The Infrastructure Assistance Coordinating Council (IACC) is a non-profit organization that helps improve the delivery of infrastructure assistance, both financial and technical, to local governments and tribes in Washington State. The IACC has put together a list of funding opportunities that are currently available for drinking water and wastewater projects, broken down by the following:

- **Type of program:** (planning, pre-construction only, construction and design/construction, and emergency).
- **Eligible Projects**: the type of project (water, wastewater, stormwater, etc.).
- **Eligible Applicants**: the type of municipality or district, meeting certain requirements.
- **Funding Available:** whether the source is a grant or a loan, providing the maximum amount, and financial information if necessary.
- **How to apply:** providing the date to submit, website resources, and contact information.

The types of funding sources vary, but the main assistance programs are:

- **Public Works Trust Fund (PWTF):** loans for eligible projects including repair, replacement, and construction of infrastructure for domestic water projects that improve public health and safety, respond to environmental issues, promote economic development, or upgrade system performance.
- **DWSRF:** This funding was established by the 1996 amendments to the Safe Drinking Water Act (SDWA) and is a partnership between the U.S. Environmental Protection Agency (USEPA) and the states. According to the DOH website, the DWSRF makes funds available to drinking water systems to pay for infrastructure improvements. The loan program is funded through federal and state money and subject to state laws and additional federal regulations. Loan repayments can range from 6 to 20 years.

10.6 Financial Analysis Summary

The City has adequate revenue from water rates, budget from Washington State to rehabilitate Well 1, and GFCs to meet the expected operating costs of the water system through 2029. However, GFCs should be reassessed to ensure the maximum amount of revenue can be obtained. A rate study is also recommended to address affordability by customer class. No new debt is issued in the financial forecast, but existing debt is being paid.

Capital projects are projected to range from $170,000 to $2.4 million annually through 2030. Water rates are projected to increase to 10 percent through 2022 and then increase at 3 percent through 2029. With this rate increase, the City is able to meet their revenue goal to complete the CIP projects identified in the financial analysis.

10.7 Recommendations

Based on the results of the financial analysis, the following studies are recommended to confirm the proposed rate increases:

- **Rate Study**. The financial analysis is intended to show the viability of funding the CIP. A rate study is needed to address affordability by customer class.
- **General Facility Charges Study**. The general facility charges should be reviewed and reassessed to determine the maximum amount of review that can be obtained through general facility charges.

Appendix 1A

NOTICE OF DETERMINATION OF NON-SIGNIFICANCE (DNS)

~~ To be included at a later date. ~~

Appendix 1B

STATE ENVIRONMENTAL POLICY ACT (SEPA)

~~ To be included at a later date. ~~

Appendix 1C

AGENCY COMMENT LETTERS AND RESPONSES

~~ To be included at a later date. ~~

Appendix 1D

LOCAL GOVERNMENT CONSISTENCY DETERMINATION FORM

~~ To be included at a later date. ~~

Appendix 1E

ORDINANCES AND APPROVALS

~~ To be included at a later date. ~~

Appendix 1F

WATER SYSTEM PLAN SUBMITTAL FORM

Appendix 3A

INTERLOCAL AGREEMENTS

Utility Service Agreements between Regional Partners

1960662 MASON CO WA
07/28/2010 03:46 PM AGREE
CITY OF SHELTON #39440 Rec Fee: $71.00 Pages: 10

After recording return document to:

City of Shelton
525 W. Cota Street
Shelton, WA 98584

Document Title: Utility Extension Agreement (City Water Service)

Grantor(s): City of Shelton

Grantee: Washington State Patrol

Legal Description:
Section 2 & 11
Township 20, Range 4W

Parcel Number: 420023260010, 420112200010, and 420101000000

UTILITY EXTENSION AGREEMENT
(CITY WATER SERVICE) C1101586SC

Pursuant to Chapter 17.10 "Water and Sewer Service Outside City Limits" of the Shelton Municipal Code, the Parties, the City of Shelton ("City") and the Washington State Patrol ("WSP") herby enter into the following utility extension agreement ("Agreement").

WHEREAS, WSP desires to obtain City water services for its property, the WSP Academy, located at 631 W. Dayton-Airport Road, Shelton, WA, including Mason County Parcels No. 420023260010, 420112200010, and 420101000000 ("the Academy"); and

WHEREAS, the Academy is outside the Shelton City limits but inside the City's urban growth area ("UGA"); and

WHEREAS, pursuant to the Growth Management Act ("GMA"), Chapter 36.70A RCW, cities are the preferred providers of municipal services, including water and sewer, within their corporate limits and UGA boundaries; and

WHEREAS, also pursuant to GMA, Shelton will eventually annex to the extent of its UGA boundary, including the Academy; and

WHEREAS, The City has a special interest in extending utilities to the Dayton-Airport Road area in order to stimulate expansion and development of State, commercial and industrial uses; and

WHEREAS, WSP has a special interest in extending water service to the Academy to improve water service, and complete the regional projects that currently include sewer and reclaimed water utility services to the area; and

WHEREAS, the Regional Water System is defined in the *Shelton Area Water and Sewer Regional Plan* (Gray & Osborn, November 2001) adopted by the City and WSP, and approved by Washington Department of Health and Washington Department of Ecology. The Regional Water System includes the facilities defined in a separate Memorandum of Understanding, which is attached as Exhibit A.

NOW, therefore, the Parties hereby agree as follows:

I. Water Service Extension

1. The City warrants that it has sufficient water capacity to serve the needs of WSP for domestic, fire flow and other potable water needs. The City will implement the 6-year and 20-year Capital Improvement Plan in the City's Water Comprehensive Plan 2010

and will provide future service to the property owners in the Dayton-Airport Road area with municipal water, using the same terms as required under this Agreement.

2. The City hereby agrees to allow WSP to connect to the City's water system in accordance with Shelton Municipal Code (SMC) Chapter 17.10. When extending the City water main to the Academy, WSP shall also comply with all terms of SMC Chapter 17.10, the City's Comprehensive Water Plan, the City's public works design and utility standards, and this Agreement.

3. WSP agrees to fund all design, engineering, construction, easements, licenses, inspections and all other associated costs of extending City water service from the Satellite Water Reclamation Plant to the WSP Academy. WSP may enter into cost sharing agreement with Washington Department of Corrections.

4. The City agrees to provide sufficient water to meet WSP's water needs of 63,000 gallons per day, average annual use and 132,000 gallons per day, peak day usage. In the event of an emergency, the City agrees to provide water service to WSP in excess of the allocated peak day usage for a period of up to 30 days, to the extent that the City's water system is capable.

5. The City shall administer a latecomer agreement on WSP's behalf pursuant to Chapter 35.91 RCW, with the goal of reimbursing WSP for its contribution to the extension of the water main over and above its pro rata share.

6. The City shall ensure that engineering of the water main extension is compatible with existing extension of sanitary sewer service and reclaimed water.

7. WSP shall pay all lawfully established rates and charges and comply with all requirements regarding the use and maintenance of the utility services as required in Title 15 of the SMC.

8. WSP shall sign and record an agreement, that shall bind the current and future owners of the subject property, providing the city with an irrevocable power of attorney to allow a city representative to sign a petition of annexation on behalf of the property owner, and which waives its right to protest the formation of any local improvement district per SMC §17.10.020(G) and (I).

9. In addition to all other remedies available at law for noncompliance by WSP or any subsequent property owner with the terms of this Agreement, the City shall have the authority to disconnect utility service, and for that purpose may at any time enter upon the private property.

10. The City shall be responsible for contracting design and construction of the water extension through the competitive bidding process and shall manage the project and pay consultant/contractor with reimbursement by WSP as defined in a separate intergovernmental agreement.

11. WSP shall be responsible for all design and construction of connecting infrastructure on the Academy's property to the City's water meter and water main. WSP shall comply with all requirements of the City's development regulations, zoning, fire codes, and portions of the city building code which are referenced in the fire code, and the City public works standards when developing or redeveloping the property.

12. Each party shall defend, protect and hold harmless the other parties from and against all claims, suits and/or actions arising from any negligent or intentional act or omission of that party's employees, agents, and/or authorized subcontractor(s) while performing under this Agreement.

II. Connection to water service

13. WSP shall not connect to the City water system until authorized by the City, and such connection shall be performed under the supervision and direction of the City.

14. Prior to connecting to City water service, WSP shall provide the City with an estimate of daily water consumption at the proposed facilities.

15. WSP agrees to pay all connection charges in the form of General Facilities Charges and consumption rate in accordance with Shelton Municipal Code. The General Facilities Charges will be credited with the design and construction costs provided by WSP for the water extension.

16. Once WSP has connected to City water service, WSP shall use City water as its primary potable water source.

III. Miscellaneous

17. Per SMC § 17.10.020(A), this Agreement shall be recorded in the office of the Mason County Auditor and shall constitute a covenant running with the land that binds current and subsequent property owners to all its terms.

18. Each party agrees to perform any further acts and to execute and deliver any further documents as may be reasonably necessary to fully effectuate the provisions of this Agreement.

CITY OF SHELTON

John Tarrant, Mayor

2/26/2010

Date

ATTEST

Vicki Look, City Clerk

WASHINGTON STATE PATROL

D.J. Karnitz, Deputy Chief

Name, Title

7-19-10

Date

C1101586SC

Memorandum of Understanding

A Memorandum of Understanding between the City of Shelton, Washington (CITY), Washington State Patrol (WSP) and Washington State Departments of Corrections (DOC) for the Dayton-Airport Road Water Expansion Project and Shelton Regional Water Infrastructure Project

The CITY, WSP and DOC enter into this Memorandum of Understanding (MOU) to show a good faith commitment to a common goal. An MOU is not a legal contract and does not strictly obligate the resources of either governmental entity. This MOU provides a framework to formulate future intergovernmental agreements under authority of RCW 39.34.010 of Washington State Inter-local Cooperation Act to construct water services to WSP and DOC, and the supporting City infrastructure.

1.01 Purpose

This MOU is to collaborate on Phase II of the Shelton Area Regional Water and Wastewater Plan to provide City water and infrastructure to WSP Academy and DOC Correctional Center. This MOU identifies broad areas of collaboration and provides the framework for future intergovernmental agreements.

1.02 Background

- The CITY owns and operates a public water system for purposes of supplying potable water for residential, commercial, industrial, and other public and private use and is authorized to supply water outside of its city limits.
- The WSP and DOC own and operate facilities on the Dayton-Airport Road that require potable water service to improve their function now and in the future. These facilities include the WSP Academy and DOC Correctional Center.
- The CITY has a special interest in extending CITY water and sewer service to the Dayton-Airport Road area in order to stimulate expansion and development, which will ultimately contribute to the CITY's tax base and the financial viability of the CITY's utility.
- Extending water and sewer service to Dayton-Airport Road is consistent with the original intent defined by the Partners in the Shelton Area Water and Sewer Regional Plan (Gray & Osborne, November 2001) to plan and construct infrastructure necessary to provide CITY potable water to the WSP Academy and DOC Correctional Center, including the apportioned percentage for the whole project as defined in Attachment A.
- The parties to this MOU agree providing potable water to the Academy is a high priority and progress is dependant upon secured funding with the desired timeline shown in Attachment B.
- The City is updating its Water Comprehensive Plan as required under RCW 70.116.060 (6) to include an adjustment of service area from the CITY limits to Urban Growth Area, and a six-year Capital Improvement Plan (CIP) that incorporates extending utilities to the Dayton-Airport Road area.

2.01 Objectives

1. The City will own and operate potable water infrastructure to service the WSP Academy in the near term, and the DOC Correctional Center as required to meet long-range plans.
2. The CITY, WSP and DOC will split the cost of various project design and construction activities of water infrastructure. Cost allocation is proposed in Attachment A and will be further defined in a future intergovernmental agreement. Cost estimates are subject to change.
3. The CITY, WSP and DOC understand that partner focus on specific Activities defined in Attachment A offers the opportunity for efficiencies to complete this project in a timely manner. The proposed timeline is described in Attachment B. This will also be included in an intergovernmental agreement.
4. The WSP and DOC commit to design for the extension of the transmission main between the City's Satellite Water Reclamation Plant (SWRP) and the DOC Correctional Center, and construction of the transmission main and appurtenances as needed to supply potable water to the WSP Academy. The WSP and DOC will bear the full cost of this portion of this project.
5. The CITY commits to plan and construct infrastructure such as storage and treatment, disinfection and pipeline improvements, and telemetry necessary to support the supply of potable water to these State facilities once the main is operational. The CITY will bear the full cost of these portions of the Regional Plan to support the potable water extension to WSP and DOC.

4.01 Work Activities and Contacts

- The CITY will be responsible for administering agreements and contracts to complete this project.
- The CITY will prepare an intergovernmental agreement that defines the partner portions of the project costs based upon Attachment A. This agreement will include provisions for latecomers compensation to the state for use of state funded capital investments.
- The WSP and DOC agree to sign Utility Extension Agreements for potable water with the CITY that allows connection only under certain terms and conditions in accordance with the Shelton Municipal Code, as currently enacted or here after amended unless such code is inconsistent with state law.
- The following are contacts directly linked with this project:
    - City of Shelton - Michael J. Michael, P.E. City Engineer (360) 432-5125
    - Washington State Patrol – Arel Solie, Property Management Division Commander (360) 596-6043
    - Department of Correction – Dwight Hollar, Capital Programs Project Manager (360) 725-8344
    - Regional Project Manager – Dennis McDonald (360) 432-5167

5.01 Terms and Conditions

- Terms and Conditions will be defined in future intergovernmental agreements

City of Shelton

THIS IS NOT AN ORIGINAL DOCUMENT

Signed _____

By: JOHN S. TARRANT Date: 4-19-2010

Title: MAYOR, City of SHELTON

Washington State Patrol

WSP No. C100755GSC

Signed _____

By: D.J. Karnitz Date: 3-31-10

Title: Deputy Chief

Department of Corrections

Signed _____

By: David B Jaussen Date: 4/12/2010

Title: Capital Programs Director

ATTACHMENT A

BUDGET DAYTON-AIRPORT ROAD WATER EXPANSION PROJECT *

Draft CIP Shelton Water Comprehensive Plan Update	Total Estimated Costs	Estimated Design (12% of Total)			Estimated Construction Costs		
		City	WSP	DOC	City	WSP	DOC
D-6 DAR Water Transmission Main - Regional system line SWRP to WSP (11,800 LF)	$3,192,000		$206,076#	$176,964#		$1,511,220	$1,297,740
ST-3 Associated Regional system storage & treatment	$4,824,000	$578,880			$4,245,120		
T-1 Shelton Springs Disinfection	$2,350,000	$282,000			$2,068,000		
D-5 Pipeline from Shelton Springs to HS Reservoir							
D-2 Telemetry upgrade	$160,000				$160,000		
Estimated TOTAL	**$10,526,000**	**$860,880**	**$206,076**	**$176,964**	**$6,473,120**	**$1,511,220**	**$1,297,740**

Estimated Partner Total Shares

	Totals	Anticipated Percent
City (68.6%)	$7,334,000	69.68%
WSP (16.9%)	$1,717,296	16.31%
DOC (14.5%)	$1,474,704	14.01%
TOTAL	**$10,526,000**	**100%**

* Apportioned Project costs based on Contract & Finance Work Group Recommendation 12/16/08

\# Current WSP and DOC design funds for Water Transmission Main is based on actual state appropriated funds

ATTACHMENT B

TIMELINE DAYTON-AIRPORT ROAD WATER EXPANSION PROJECT:

Project / Year/Biennium	July 2009-June 2010	July 2010–June 2011	July 2011–June 2012	July 2012–June 2013
D-6 DAR Water Transmission Main - Regional system line SWRP to WSP (11,800 LF)	Design 2010	Design	Construction	
ST-3 Associated Regional system storage & treatment		Design	Design/Construction	Construction
T-1 Shelton Springs Disinfection D-5 Pipeline from Shelton Springs to HS Reservoir		Design	Design/Construction	Construction
D-2 Telemetry upgrade	Completed in 2009	On going as new facilities are constructed		

Port of Shelton Interim Compliance Agreement

ORIGINAL

INTERIM COMPLIANCE AGREEMENT FOR WATER USE AT THE PORT OF SHELTON JOHN'S PRAIRIE INDUSTRIAL PARK

1. This agreement is entered into by the Washington State Department of Ecology and the Port of Shelton. The duration of the agreement is from the date signed until January 1, 2010, or until the Port of Shelton Johns Prairie Water System is connected to a regional utility system, whichever occurs first, or as otherwise provided below.

2. The annual withdrawal of public waters to serve Port of Shelton Johns Prairie Water System customers, for the duration of this agreement, shall not exceed 42 acre-feet per year.

3. Water use shall be limited to existing uses of water and water for domestic use (e.g., lavatories and hand washing stations, associated domestic supply purposes and facility and equipment cleaning) associated with users of the Port of Shelton Johns Prairie Water System.

4. Use of additional water by new non-water dependent facilities (that is, facilities that only require water for periodic facility and equipment cleaning, drinking, bathrooms, showers and incidental kitchen use) may be allowed by the Department of Ecology as long as such water use by the Johns Prairie Water System is accompanied by an equal or greater reduction in water elsewhere by existing customers of the Port of Shelton Johns Prairie Water System, or by other water right holders at another upstream point within the Johns Creek watershed. Any transfer of water right would be subject to review by the Department of Ecology in accordance with RCW's 90.03.380 and 90.44.100, including opportunities for public notice, comment and protest, and in accordance with Ecology's duty to process water right applications in terms of priority. The Port is responsible for quantifying and verifying any water use reduction and providing the data to Department of Health Southwest Regional Office for water system adequacy review, and to the Department of Ecology.

5. For the duration of this agreement, water use for the purpose of irrigation shall be limited to a minimum quantity necessary to ensure survivability of turfgrass and ornamental landscaping. Water use at the recreational facilities shall not exceed an annual quantity of 16.06 inches of water per irrigated acre, or 16.2 acre feet per year. Allowance shall be made for a 10 percent efficiency loss. That is, in order to apply 16.2 acre-feet of water to the recreation fields, it may be necessary to actually withdraw 17.82 acre-feet due to inefficiencies in the distribution system. However, the Port shall strive to be as efficient as is reasonably possible.

6. No new landscaping that requires Port of Shelton Johns Prairie water shall be installed until such time as a regional utility system with adequate water rights extends water service to the Johns Prairie property, or other supply becomes available.

7. All facilities on the Johns Prairie Property shall be metered and monthly water use shall be recorded. Water use shall be provided annually, at a minimum, or upon request, to the Southwest Regional Offices of the

Departments of Ecology and Health, Mason County Department of Health Services and will be available to others through a public disclosure request pursuant to the Public Records Act, Chapter 42.17 RCW. The Department of Ecology will provide any water use data it has received from the Port of Shelton to the Squaxin Indian Tribe upon request.

8. The Port will continue to increase distribution system efficiencies.

9. For the duration of this agreement or until a public water supply is available to customers of the Port of Shelton Johns Prairie Water System from a regional utility system or other purveyor, no facilities shall be established that require water for an industrial purpose (e.g., process water, cooling water, or any other consumptive industrial water use) unless the water required can be obtained through reuse of water by the tenant while continuing to meet the conditions of this agreement. Verification must be provided to the Southwest Regional Offices of the Departments of Ecology and Health. Reuse projects require the approval of both agencies prior to implementation.

10. The Port of Shelton will implement a water conservation program beginning in 2005, which will include an audit of all water use at facilities served by the Port of Shelton Johns Prairie Water System. The Department of Ecology's TREE Team is able to audit industrial facilities and may be appropriate for this task, but the Port is free to select a qualified firm or individual of its own choosing. Results of the audit shall be provided to the Department of Ecology and Department of Health no later than January 1, 2006.

11. Any new facilities shall be constructed and operated with efficient water use fixtures consistent with this agreement.

12. Opportunities for conserving water that are identified in the water use audit shall be implemented to the extent feasible and practicable. An annual summary of water saving measures shall be provided to the Department of Ecology and Department of Health at the same time that water use data is provided. The Port shall strive to achieve savings of at least 5 percent per year.

13. The Port of Shelton will have the responsibility and authority to evaluate the impacts of using less than the standard water allocation for turfgrass (16.06 inches per year) at recreational fields and shall reduce the quantity of water used if the impacts do not unacceptably degrade playing field conditions.

14. When public water becomes available from a regional utility system or other supply, the Port of Shelton may continue to operate its wells only if, after consultation with the Port of Shelton, the City of Shelton, the Department of Health, the Squaxin Indian Tribe, Mason County and other affected parties, the Department of Ecology authorizes continued withdrawals from such wells. Before making any decisions with respect to such authorization, the Department of Ecology will give due consideration to the goals and objectives of a region water utility plan and effects on existing water rights, instream flows and the public interest. Additional review and approval by others (e.g., Department of Health and Mason County), may also be required before new customers are allowed to connect.

15. If public water from the regional utility is not available by January 1, 2010, the Port shall not allow the addition of any water system customers or increased water use to the Johns Prairie Water System without further review, discussions, and approval of the Department of Ecology, in consultation with the Squaxin Indian Tribe, regarding

water use, with consideration of improved stream flows, conservation efforts by the Port, status of regionalization, economic gain, and advancements in environmental technology.

16. For the duration of the agreement until January 1, 2010, and if this agreement is adhered to by the Port of Shelton, the Washington State Department of Ecology agrees to not initiate any enforcement action against the Port related to the use of domestic water as specified in this agreement.

17. The Port will, upon connection of their Johns Prairie Water System customers to the regional water utility, withdraw the following water right applications pending before the Department of Ecology, if they are still pending at that time:

    a. Application for Ground Water Right No. G2-28520
    b. Application for Ground Water Right No. G2-28544
    c. Application for Ground Water Right No. G2-28545

This document contains the entire agreement of the Parties, as attested to below.

Port of Shelton

Department of Ecology 1-19-05

Appendix 3B

WATER FACILITIES FORM

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

WATER FACILITIES INVENTORY (WFI) FORM

ONE FORM PER SYSTEM

Quarter: 1
Updated: 11/16/2020

Printed: 4/1/2021
WFI Printed For: On-Demand
Submission Reason: Pop/Connect Update

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
78170 N	SHELTON CITY OF	MASON	A	Comm

6. PRIMARY CONTACT NAME & MAILING ADDRESS

MATT C. DEEMER [MANAGER]
525 WEST COTA ST
SHELTON, WA 98584

7. OWNER NAME & MAILING ADDRESS

SHELTON, CITY OF
KENNETH W. GILL
525 WEST COTA ST
SHELTON, WA 98584

UTILITY MANAGER

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

9. 24 HOUR PRIMARY CONTACT INFORMATION

Primary Contact Daytime Phone: (360) 432-5187
Primary Contact Mobile/Cell Phone: (360) 490-0610
Primary Contact Evening Phone: (xxx)-xxx-xxxx
Fax:
E-mail: xxxxxxxxxxxxxxxxxxx

10. OWNER CONTACT INFORMATION

Owner Daytime Phone: (360) 432-5144
Owner Mobile/Cell Phone: (360) 490-0453
Owner Evening Phone: (xxx)-xxx-xxxx
Fax:
E-mail: xxxxxxxxxxxxxxxxxxx

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- [x] Not applicable (Skip to #12)
- [ ] Owned and Managed
- [ ] Managed Only
- [ ] Owned Only

SMA NAME: _____ SMA Number:

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- [ ] Agricultural
- [x] Commercial / Business
- [x] Day Care
- [x] Food Service/Food Permit
- [x] 1,000 or more person event for 2 or more days per year
- [x] Hospital/Clinic
- [x] Industrial
- [x] Licensed Residential Facility
- [x] Lodging
- [x] Recreational / RV Park
- [x] Residential
- [x] School
- [ ] Temporary Farm Worker
- [x] Other (church, fire station, etc.): _____

13. WATER SYSTEM OWNERSHIP (mark only one)

- [ ] Association
- [x] City / Town
- [ ] County
- [ ] Federal
- [ ] Investor
- [ ] Private
- [ ] Special District
- [ ] State

14. STORAGE CAPACITY (gallons)

1,818,000

15	16	17	18 SOURCE CATEGORY									19 USE			20	21 TREATMENT						22	23	24 SOURCE LOCATION			
Source Number	SOURCE NAME LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN TERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	SPRINGS					X								X	N	X							2500	NE NW	18	20N	03W
S02	WELL #1 AHB646		X									X			Y		X					285	1500	SE SW	07	20N	03W
S03	InAct 08/01/2005 WELL #2 AHB642		X											X	N	X						265	1000	NE SW	07	20N	03W
S04	WELL #3 AHB645		X									X			Y		X					298	1000	NW SW	07	20N	03W
S05	WELL #4 AEC942		X									X			Y		X					197	1000	NW SW	07	20N	03W

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
78170 N	SHELTON CITY OF	MASON	A	Comm

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		3983	Unspecified
A. Full Time Single Family Residences (Occupied 180 days or more per year)	3034		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	240		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	949		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	3	3	
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	402	402	
28. TOTAL SERVICE CONNECTIONS		4388	

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 9975

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?	27376	27376	30376	30376	30376	30376	30376	30376	30376	27376	27376	27376
B. How many days per month is water accessible to the public?	30	30	30	30	30	30	30	30	30	30	30	30

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students daycare children and/or employees are present each month?	10425	10425	10425	10425	10425	10425	6475	6475	10425	10425	10425	10425
B. How many days per month are they present?	30	30	30	30	30	30	30	30	30	30	30	30

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	20	20	20	20	20	20	20	20	20	20	20	20

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)			

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☐ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

WS ID	WS Name
78170	SHELTON CITY OF

Total WFI Printed: 1

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Water Facilities Inventory (WFI)

Report Create Date:	4/1/2021		
Water System Id(s):	78170N		
Print Data on Distribution Page:	ALL		
Print Copies For:	DOH Copy		
Water System Name:	ALL		
County:	-- Any --		
Region:	ALL		
Group:	ALL		
Type:	ALL		
Permit Renewal Quarter:	ALL		
Water System Is New:	ALL		
Water System Status:	ALL		
Water Status Date From:	ALL	**To**	ALL
Water System Update Date	ALL	**To**	ALL
Owner Number:	ALL		
SMA Number:	ALL		
SMA Name:	ALL		
Active Connection Count From:	ALL	**To:**	ALL
Approved Connection Count	ALL	**To:**	ALL
Full-Time Population From:	ALL	**To:**	ALL
Water System Expanding	ALL		
Source Type:	ALL		
Source Use:	ALL		
WFI Printed For:	On-Demand		

Appendix 3C

WATER RIGHTS DOCUMENTATION

23738. S. F. No. 369—1923. Approved as to Form by Dept. of Efficiency.

CERTIFICATE RECORD No. One, PAGE No. 233

STATE OF WASHINGTON, COUNTY OF Mason

CERTIFICATE OF WATER RIGHT

(For rights perfected under original, enlargement or secondary permits.)

(In accordance with the provisions of Chapter 117, Laws of Washington for 1917, and the regulations of the State Hydraulic Engineer thereunder.)

This is to certify, that Town of Shelton, *of* Shelton, *State of* Washington, *has made proof to the satisfaction of the State Supervisor of Hydraulics of Washington, of a right to the use of the waters of* Shelton Springs, *a tributary of* ....., *for the purposes of* municipal water system, *under* Appropriation *Permit No.* 745, *of the State Supervisor of Hydraulics, and that said right to the use of said waters has been perfected in accordance with the laws of Washington, and is hereby confirmed by the State Supervisor of Hydraulics of Washington and entered of record in Volume* One, *at Page* 233, *on the* 18th *day of* November, *19*27; *that the right hereby confirmed dates from* June 25, *19*26; *that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed* Five *cubic feet per second.*

A description of the lands under such right, and to which the water hereby confirmed is appurtenant, or if for other purposes, the place where such water is put to beneficial use, is as follows:

Township	Range	Section	Forty-Acre Tract	No. Acres Described in Permit	No. Acres Actually Irrigated
			SE corner of Block 13, Sheltons Third Addition to Shelton	Point of Diversion	

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in Section 39, Chapter 117, Session Laws 1917.

WITNESS the seal and signature of the State Supervisor of Hydraulics affixed this 18th *day of* November, *19*27.

R. K. Sifford

State Supervisor of Hydraulics.

Permit No. 745

Certificate of Water Right

Recorded in the office of State Supervisor of Hydraulics, Olympia, Washington, in Book No. One *of Water Right Certificates, on Page* 233, *on the* 18th *day of* November, *19*27.

STATE OF WASHINGTON,
County of ..... } *ss.*

I certify that the within was received and duly recorded by me in Volume ..... *of Book of Water Right Certificates, Page* ..... *on the* ..... *day of* ....., *19*.....

.....

FRANK M. LAMBORN, PUBLIC PRINTER

1008

S. F. No. 7361—3-51—3M. 27753.

CERTIFICATE RECORD NO. 3 PAGE NO. 1008-A

STATE OF WASHINGTON, COUNTY OF Mason

Certificate of Ground Water Right

Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the State Supervisor of Water Resources thereunder.

THIS IS TO CERTIFY *That* CITY OF SHELTON

of Shelton, Washington, *has made proof to the satisfaction of the State Supervisor of Water Resources of Washington, of a right to the use of the ground waters of a* well

located within the SW¼ of SE¼ of SW¼ of Sec. 7, Twp. 20 N., Rge. 3 W.W.M.

for the purpose of municipal supply

under and subject to provisions contained in Ground Water Permit No. 685 *issued by the State Supervisor of Water Resources and that said right to the use of said ground waters has been perfected in accordance with the laws of Washington, and is herby confirmed by the State Supervisor of Water Resources of Washington and entered of record in Volume* 3 *at page* 1008-A; *that the right hereby confirmed dates from* March 11, 1948; *that the quantity of ground water under the right hereby confirmed for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed* 3,000 gallons per minute; 1, 190 acre-feet per year. ~~for irrigation of ..... acres.~~

A description of the lands to which such ground water right is appurtenant, and the place where such water is put to beneficial use, is as follows:

City of Shelton, Mason County, Washington.

The right to the use of the ground water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in Sections 6 and 7, Chapter 122, Laws of 1929.

WITNESS the seal and signature of the State Supervisor of Water Resources affixed this 13th *day of* March, 19 52.

Elmo A. Buchanan

State Supervisor of Water Resources

Ground Water Permit No......

CERTIFICATE OF GROUND WATER RIGHT

Recorded in the office of the State Supervisor of Water Resources, Olympia, Washington, in Book No. ..... *of Ground Water Right Certificates, on page* ....., *on the* ..... *day of* ....., *195*.....

STATE OF WASHINGTON,
County of ..... } *ss.*

I certify that the within was received and duly recorded by me in Volume ..... *of Book of Water Right Certificates, at page* ....., *on the* ..... *day of* ....., *19*.....

.....

STATE PRINTING PLANT, OLYMPIA, WASH.

2072

S. F. No. 7361—3-53—3M. 34100.

CERTIFICATE RECORD NO. 5 PAGE NO. 2072-A

STATE OF WASHINGTON, COUNTY OF Mason

Certificate of Ground Water Right

Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the State Supervisor of Water Resources thereunder.

THIS IS TO CERTIFY *That* CITY OF SHELTON, WASHINGTON

~~of~~ , *has made proof to the satisfaction of the State Supervisor of Water Resources of Washington, of a right to the use of the ground waters of a* well *located within* the SW¼ of NE¼ of SW¼ of Sec. 7, Twp. 20 N., Rge. 3 W.W.M.

for the purpose of municipal supply *under and subject to provisions contained in Ground Water Permit No.* 3110 *issued by the State Supervisor of Water Resources and that said right to the use of said ground waters has been perfected in accordance with the laws of Washington, and is hereby confirmed by the State Supervisor of Water Resources of Washington and entered of record in Volume* 5 *at page* 2072-A *; that the right hereby confirmed dates from* July 20, 1953 *; that the quantity of ground water under the right hereby confirmed for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed* 1200 gallons per minute; 1344 acre-feet per year for municipal supply. ~~for irrigation of~~ ~~acres.~~

A description of the lands to which such ground water right is appurtenant, and the place where such water is put to beneficial use, is as follows:

City of Shelton, Mason County, Washington.

The right to the use of the ground water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in Sections 6 and 7, Chapter 122, Laws of 1929.

WITNESS the seal and signature of the State Supervisor of Water Resources affixed this 24th *day of* November, 19 54.

M. O. Walker

State Supervisor of Water Resources.

INEERING DATA

CWR

Ground Water Permit No. 2072

CERTIFICATE OF GROUND WATER RIGHT

Recorded in the office of the State Supervisor of Water Resources, Olympia, Washington, in Book No. ..... of Ground Water Right Certificates, on page .....,

on the ..... day of .....,

195.....

STATE OF WASHINGTON,
County of ..... } *ss.*

I certify that the within was received and duly recorded by me in Volume ..... of Book of Water Right Certificates, at page ....., on the ..... day of ....., 19.....

.....

STATE PRINTING PLANT OLYMPIA, WASHINGTON

S. F. No. 370-B—5-51—7500. 28567.

$10.00 examination fee should accompany each application.

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION AND DEVELOPMENT
Division of Water Resources

APPLICATION FOR A PERMIT

To Appropriate Public Ground Waters
OF THE STATE OF WASHINGTON

Application No. G. W. 3312

I, CITY OF SHELTON
(Name of applicant)

of City Hall, Shelton, Washington
(Complete post office address)

do hereby make application for a permit to appropriate the following described public ground waters of the State of Washington, subject to existing rights. This application is made under the provisions of Chap. 263 of the Session Laws of 1945, and amendments thereto of the State of Washington and subject to the rules and regulations of the Department of Conservation and Development, Division of Water Resources.

1. *The proposed appropriation will be from* Well
(Well, tunnel, infiltration trench)

located 1½ miles north of Shelton
(Give approximate distance and direction from nearest city or town)

Area ..... (Leave blank) *Sub-area* ..... (Leave blank)

Zone .....
(Leave blank)

Applicant's name or number of well or other works, if any Well #3

2. *The quantity of water which applicant intends to withdraw for beneficial use is* 1500 g.p.m. *gallons per minute;* 1344 *acre feet per year.*

3. *The use or uses to which water is to be applied*
Municipal Water Supply
(Domestic supply, irrigation, municipal, manufacturing, industrial use, etc.)

4. *The time during which water will be required each year* 12 months

5. *Location of well or other works for withdrawal of water: In county of* Mason

(a) N 37° - 42' E, 2406.68 feet from S.W. Cor. Sec. 7,
(Give distance and bearing from nearest corner of section or legal subdivision)

being within the SW¼, NE¼, SW¼ *of Sec.* 7, *Twp.* 20 *N., Rge.* 3W (E. or W.)
(Give smallest legal subdivision)

or (b) If within limits of recorded platted property, town or city: Lot ....., *Block* .....,

of .....
(Give name of plat or addition) (If within town or city, give name)

(c) Show this location on accompanying section plat, in duplicate. Other adequate maps or drawings will be acceptable.

6. DESCRIPTION OF WORKS:

(a) Well will be drilled *(Dug or drilled) and have a diameter of* 12 *inches and an estimated depth of* 708 *feet.*

(b) Tunnels or trenches to be described: (Attach additional sheets if needed for full description.)

(c) Distribution system to be described:

Will connect to City Springs collection basin with 12" steel gravity line approximately 2600 feet to the south.

(d) If pumps are to be used, give size and type:

Worthington Deep Well Turbine Pump 1200 g.p.m. 175' Total Head

(e) Give capacity and type of motor or engine to be used:

60 H.P. 2400 volt, 3 phase

(f) If the location of the well, tunnel, or other works is less than one-fourth mile from a natural stream or stream channel, give the distance to the nearest point on each of such channels and the difference in elevation between the stream bed and the ground surface at the source of development:

(g) Ownership of each existing well or other works from which ground water is withdrawn within a radius of one-quarter mile and the distance and direction from well or other works being reported herein:

(Name)	(Direction)	(Distance)
None		

SUPPLY THE FOLLOWING INFORMATION ACCORDING TO USE PROPOSED:

7. *For Municipal Supply: To supply the city, town, or community of* Shelton *, in the county of* Mason *, having a present population of* 5300 *, and an estimated population of* 6000 *, in 19*60*.*

8. *For Irrigation: Number of acres to be irrigated* [redacted] *acres.*

9. *Legal Description of Property on which water is to be used for all purposes other than municipal supply:*

(COPY LEGAL DESCRIPTION FROM DEED)

(If more space is required, attach separate sheet)

(On accompanying plat show location of the existing wells or works)

10. *What interest do you have in the above described property?* .....

.....

(Owner, lessee, contract buyer, etc.)

11. *Do you have any other water rights appurtenant to the above described property?* .....

If so, from what source? .....

12. *Construction work ~~will begin on or before~~* has begun

13. *Construction work will be completed on or before* August 30, 1953

14. *Water will be put to complete beneficial use on or before* August 30, 1953

.....

(Signature of applicant)

15. *Name and address of owner of land on which well or works are located:*

CITY OF SHELTON — (Name)

City Hall, Shelton, Washington — (Address)

H C Rotter — (Signature of legal landowner)

Signed in the presence of us as witnesses:

H. C. ROTTER, Mayor

Arthur G. Ward — (Name)

308 N. Howard, Shelton — (Address of witness)

Doris K. Hellman — (Name)

1710 Terry St, Shelton — (Address of witness)

STATE OF WASHINGTON,
COUNTY OF THURSTON. } *ss.*

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for correction or completion as follows:

.....

.....

In order to retain its priority, this application must be returned to the State Supervisor of Water Resources, with corrections, on or before ....., *19*.....

WITNESS my hand this .....*day of* ....., *19*.....

.....

State Supervisor of Water Resources.

S. F. No. 370-B—12-45—2M. 10783.

$5.00 examination fee should accompany each application.

STATE OF WASHINGTON

DEPARTMENT OF CONSERVATION AND DEVELOPMENT

Division of Hydraulics

APPLICATION FOR A PERMIT

To Appropriate Public Ground Waters

OF THE STATE OF WASHINGTON

Application No. G. W. 766

I, City of Shelton
(Name of applicant)

of City Hall Shelton, Washington
(Complete postoffice address)

do hereby make application for a permit to appropriate the following described public ground waters of the State of Washington, subject to existing rights. This application is made under the provisions of Chap. 263 of the Session Laws of 1945 of the State of Washington and subject to the rules and regulations of the Department of Conservation and Development, Division of Hydraulics.

1. *The source of the proposed appropriation is* Well
(Well, tunnel, infiltration trench)

located 1½ Mi. North of Shelton in Sec. 7 Twp.-20 N R 3 W
(Give approximate distance and direction from nearest city or town)

Area (Leave blank) *Sub-area* (Leave blank)

Zone (Leave blank)

Applicant's name or number of well or other works, if any

2. *The quantity of water which applicant intends to apply to beneficial use is* 3,000 ∓ *gallons per minute;* 1190 ------ *acre feet per year.*

3. *The use or uses to which water is to be applied* City of Shelton ' Municipal Supply
(Domestic supply, irrigation, municipal, manufacturing, industrial use, etc.)

4. *The time during which water will be required each year* 12 Mo.

5. *Location of well or other works for withdrawal of water: In county of* Mason

(a) 1450 ∓ Ft. East of and 200 ∓' N of S.W. Cor. Sec. 7 Twp. 20 NR-3W
(Give distance and bearing to nearest corner of section or legal subdivision)

being within the SW¼ of SE¼ of SW¼ *of Sec.* 7, *Twp.* 20 *N., Rge.* 3W (E. or W.)
(Give smallest legal subdivision)

or (b) *If within limits of recorded platted property, town or city: Lot* ----, *Block* ----,

of
(Give name of plat or addition) (If within town or city, give name)

(c) *Show this location on accompanying section plat, in triplicate. Other adequate maps or drawings will be acceptable.*

6. *Name and address of owner of land on which well or works are located:*

City of Shelton
(Name)

City Hall Shelton, Washington
(Address)

7. DESCRIPTION OF WORKS:

(a) Well will be drilled *and have a diameter of* 20" top 12" bottom *inches and an estimated depth of* 745 *feet.*

(Dug or drilled)

(b) Tunnels or trenches to be described: (Attach additional sheets if needed for full description.)

(c) Distribution system to be described:

Existing distribution system for water, owned and operated by the City of Shelton, for the domestic water supply for its citizens.

(d) If pumps are to be used, give size and type:

Not yet designed.

(e) Give capacity and type of motor or engine to be used:

Not yet designed.

(f) If the location of the well, tunnel, or other works is less than one-fourth mile from a natural stream or stream channel, give the distance to the nearest point on each of such channels and the difference in elevation between the stream bed and the ground surface at the source of development:

(g) Ownership of each existing well or other works from which ground water is withdrawn within a radius of one-quarter mile and the distance and direction from well or other works being reported herein:

(Name)	(Direction)	(Distance)
City of Shelton (Spring)	South	600'

(On accompanying plat show location of the existing wells or works.)

8. SUPPLY THE FOLLOWING INFORMATION ACCORDING TO USE PROPOSED:

(a) For Municipal Supply: *To supply the city, town, or community of* 5,000 *in the county of* Mason, *having a present population of* 4,200, *and an estimated population of* 7,500 *in 19* 55

(b) For Irrigation: *The land to be irrigated has a total area of* ---- *acres.*

(c) Legal Description of Property *on which water is to be used for all purposes other than municipal supply:* (If more space is required, attach separate sheet.)

9. *Construction work will begin on or before* Now

10. *Construction work will be completed on or before* 30 days

11. *Water will be put to complete beneficial use on or before* May 1, 1948

City of Shelton by
(Signature of applicant)
C J Phillips
City Engineer

Signed in the presence of us as witnesses:

Aileen Sheppard (Name) — 640 Cascade - Shelton, Wn. (Address of witness)

Alma K Catto (Name) — City Hall Shelton, Wash (Address of witness)

STATE OF WASHINGTON,
COUNTY OF THURSTON. } *ss.*

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for correction or completion as follows:

In order to retain its priority, this application must be returned to the State Supervisor of Hydraulics, with corrections, on or before ....., 19.....

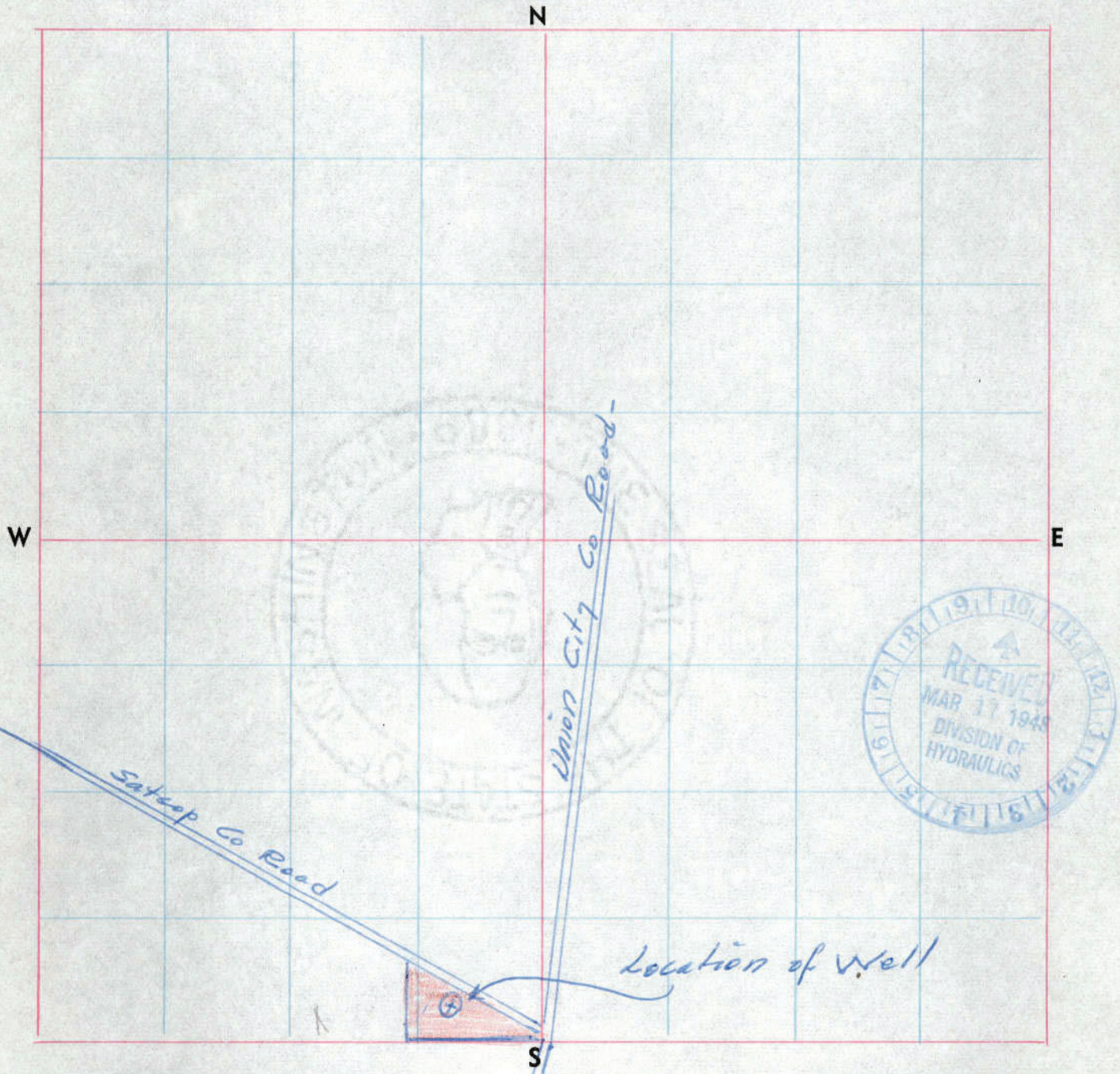
WITNESS my hand this ..... *day of* ....., 19.....

State Supervisor of Hydraulics.

S. F. No. 1854-B—7-47—6M. 15856.

SECTION PLAT

Sec. 7 Twp. 20 N N. R. 3 W



Show by a cross (X) the location of the well or other works covered by the application or declaration. Show by circle (O) the locations of other wells or works within a quarter of a mile. Also traveling directions from nearest town on main highway.

Scale: 1 inch = 800 feet.

in red. owned by City of Shelton

766

to Shelton - 1½ Mi

Appendix 3D

CITY OF SHELTON DESIGN AND CONSTRUCTION STANDARDS

"Building A Stronger Community TOGETHER"

CITY OF SHELTON

DESIGN AND CONSTRUCTION STANDARDS 2019

City of Shelton
525 W. Cota Street
Shelton, WA 98584
(360) 426-4491

Effective Date: January 15, 2019

"Building A Stronger Community TOGETHER"

CITY OF SHELTON

DESIGN AND CONSTRUCTION STANDARDS

2019

Mayor
Bob Rogers

Deputy Mayor
Deidre Peterson

Council Members
Gary Cronce
Kathy McDowell
Kevin Dorcy
Eric Onisko
Joe Schmit

Administration

Jeff Niten	City Manager
Mark Zeigler	Community & Economic Development Director
Craig Gregory	Director of Public Works

2019 City of Shelton Design and Construction Standards
Update and Supplement

January 2019

This page indicates revisions to the 2018 version of the City of Shelton Design and Constructions Standards. Revisions are listed by chapter and section number. It is recommended that for future reference, this instruction page be kept in a convenient place in the Design Standard Book.

CHAPTER 1	SECTION
MISCELLANEOUS	DETAIL #
	M-01
	M-02
	M-04
	M-05
	M-06
	M-07
TESC	DETAIL #
	E-02
	E-03
	E-04
	E-05
	E-06
	E-07
	E-08
CHAPTER 2	SECTION
2.060	
2.200	
2.230	
2.280	
2.300	
2.330	
TRANSPORTATION	DETAIL #
	T-02
	T-03
	T-03A
	T-04
	T-06
	T-08
	T-12

	T-13
	T-14
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	T-21
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	T-27
CHAPTER 3	SECTION
3.070	
STORM DRAINAGE	DETAIL #
	SD-01
	SD-02
	SD-03
	SD-04
	SD-04A
	SD-09
	SD-11
	SD-12
	SD-13
	SD-14
	SD-15
	SD-16
	SD-17
	SD-18
	SD-21
	SD-22
CHAPTER 4	SECTION
4.040	D
4.150	
WATER	DETAILS
	W-01
	W-02
	W-02A
	W-03
	W-04
	W-04A

	W-05
	W-06
	W-09
	W-10
	W-12
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	W-14
	W-16
	W-17
	W-18
	W-18A
	W-19
	W-19A
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	W-20A
	W-21
	W-21A
	W-22
	W-25
	W-26
CHAPTER 5	SECTION
5.010	
5.020	
5.130	
5.140	
SEWER	DETAIL #
	SS-01
	SS-02
	SS-03
	SS-04
	SS-04A
	SS-10
	SS-14
CHAPTER 6	SECTION
RECLAIMED WATER	DETAIL
	RW-02
	RW-04
	RW-05
	RW-06
	RW-08
	RW-09
	RW-10

TRAFFIC CONTROL	**DETAIL**
	TC-01
	TC-02
	TC-03
	TC-04
	TC-05
	TC-06
	TC-07
	TC-08
	TC-09
	TC-10
	TC-11
	TC-12

FORWARD

Build a Stronger Community – TOGETHER!

Welcome to a community dedicated to a quality environment. Shelton's Administration, City Council and staff will work with you to create first class additions to our City. We look forward to meeting with you to work out the details of your project. This document will show you our process and our standards. We hope that all your questions can be answered here. If not, please call and we will be glad to help.

This document is intended to assist, advise, guide and direct all who propose to modify facilities or develop within the City. The processing of all documents shall be in accordance with these *Design and Construction Standards* and the regulations and standards of other agencies as referred to herein.

These Standards shall apply in the City, in applicable utility service areas, and in portions of Mason County that are within the City of Shelton's Urban Growth Management Area boundary.

We attempt to achieve maximum uniformity of planning, engineering, and construction practices within the City and outside the City as outlined above. These are minimum standards and are intended to assist, but not to substitute for competent work by engineering and design professionals. Special conditions or environmental constraints may require a more stringent design than would normally be required under these *Development Standards*. It is not the intent of the City to unreasonably limit any innovative effort that could result in a superior project design. A proposed design that is different from these *Development Standards* will be evaluated on the basis that the proposed design will produce a comparable or superior result, and is, in every way, adequate for the user, the City, and the public.

This document may contain minor errors, discrepancies or omissions. The editor would appreciate it if users of this document notify the City of any required corrections.

CITY OF SHELTON
DESIGN AND CONSTRUCTION STANDARDS

Table of Contents

C H A P T E R 1

1.000 GENERAL STANDARDS AND SPECIFICATIONS

1.010 Purpose

These City of Shelton Design and Construction Standards are intended to assist, advise, guide and direct all who propose to conduct new development or redevelopment within the City of Shelton, or propose actions that would impact public roads, public rights of way, or existing utility infrastructure. Processing of documents, design details, draft and final engineering documents, surveys, testing and construction shall be in accordance with these Standards, and the regulations and standards of other agencies referred to herein.

1.020 Shortened Designation

These City of Shelton Design and Construction Standards shall be cited routinely in this text as the *Standards*.

1.030 Applicability

These *Standards* are applicable to all new construction, reconstruction and upgrading of facilities in the right-of-way and on-site for transportation and transportation-related facilities, storm drainage facilities, and sewer and water improvements.

The following specifications shall be applicable when pertinent, when specifically cited in the Standards or when required by a higher funding authority. In case of disputes regarding which *Standards* apply, the Director of Public Works will have the final decision.

A. The current edition of the Washington State Department of Transportation/American Public Works Association (WSDOT/APWA) Standard Specifications for Road, Bridge and Municipal Construction and the APWA Amendment to Division.

B. Conditions and standards as set forth in the current edition of the City of Shelton Comprehensive Water System Plan.

C. Conditions and standards as set forth in the current edition of the City of Shelton Comprehensive Sewer Plan Update and the City of Shelton 1997 I/I Facility Plan Update.

D. Conditions and standards as set forth in the current edition of the City of Shelton Comprehensive Plan.

E. Adopted rules, regulations and ordinances of the *Shelton Municipal Code.*

F. Criteria set forth in the Local Agency Guidelines as amended and approved by Washington State Department of Transportation.

G. City and County Design Standards for the Construction of Urban and Rural Arterial and Collector Roads Promulgated by the City Engineers Association of Washington, May 24, 1989, or most current edition.

H. Conditions and standards as set forth in the Washington State Department of Transportation (WSDOT) Design Manual as amended and approved by WSDOT.

I. U.S. Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD) as amended and approved by WSDOT.

J. Washington State Department of Transportation (WSDOT) Construction Manual as amended and approved by WSDOT.

K. Washington State Department of Ecology (DOE) Stormwater Management Manual for the Puget Sound Basin and the Shelton Municipal Code, Title 13.

L. Rules and regulations of the State Board of Health regarding public water supplies as published by the State Department of Health.

M. Conditions and standards as set forth in the State of Washington Department of Ecology Criteria for Sewage Works Design, most current edition.

N. Conditions and standards as set forth by the State of Washington, Department of Labor and Industries.

O. Criteria as set forth in the latest American Association of State Highway and Transportation Officials (AASHTO) policy on geometric design of highways and streets.

P. Design criteria of federal agencies including Department of Housing and Urban Development and the Federal Housing Administration.

Q. Conditions and standards as set forth in the American Water Works Association (AWWA) design manuals.

R. Criteria as set forth in Highway Capacity Manual (Special Report 209)

S. American Water Works Association (AWWA) Cross Connection Control Manual dated December 1995, or most current edition.

T. State of Washington Department of Health Water System Design Manual (current edition).

U. Federal “Americans with Disabilities” Act (ADA).

V. Other specifications not listed above as may apply when required by the City.

1.040 Definitions and Terms

"Average Daily Traffic or (ADT)” -- The average number of vehicles passing a specified point during a 24-hour period. Annual average daily traffic (AADT) denotes daily traffic that is averaged over one calendar year.

"Bicycle Facilities" -- That portion of the public right-of-way used exclusively for bicyclists or shared with other transportation modes.

"BOD" -- (denoting Biochemical Oxygen Demand) shall be the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in 5 days at 20 degrees Celsius expressed in parts per million (mg/l) by weight.

"Building Drain" -- Shall be that portion of the waste drainage line(s) inside the walls of the building that connect to the building sewer. (SMC 14.04.030)

"Building Official" -- Is the City of Shelton Building Official or his/her designated appointee.

"Building Sewer" -- Shall be that portion of the sewer line from the building foundation and extending two feet outside the foundation wall of the structure. (SMC 14.04.040). Maintenance of building sewer shall be the responsibility of the property owners.

"CED" -- Refers to the City of Shelton Community and Economic Development.

"Civil Engineer" -- A professional engineer registered in the State of Washington.

"Controlled Density Fill (CDF)" -- A lean sand and concrete mixture–with a maximum of 188 lbs. of cement per cubic yard (depending on application) and resulting in a material with a compressive strength of 50 to 200 pounds per square inch (depending on cement ratio) as outlined in Section 2-09.3(1)E of the Washington State Department of Transportation Standard Specifications.

"City" -- Refers to the City of Shelton. (SMC 14.04.050)

"City Engineer" -- The individual appointed by the City of Shelton as its City Engineer or his or her duly authorized representative.

"Developer" -- Any person, firm, partnership, association, joint venture, or corporation or any other entity responsible for a given project.

"Development" -- Any man-made change to improved or unimproved real property including but not limited to construction of buildings or other structures, additions, reconstruction, placement of manufactured home/mobile home, mining, dredging, logging, clearing, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, any activity that results in the removal of vegetation or alteration of natural site characteristics or the division of property pursuant to the subdivision regulations.

"Director of Public Works" -- The individual appointed by the City of Shelton as its Public Works Director or his or her duly authorized representative.

“Driveway” -- An access from a public right of way or private street easement/tract to one (1) or two (2) parcels maximum, with a length of no more than 50 feet as measured from the edge of the

right of way or private street easement/tract to the point where shared access ends for two (2) parcels.

"Dwelling Unit" -- one or more rooms including kitchen designed as a unit for occupancy by one family for the purpose of cooking, living and sleeping.

"Easement" -- The right to use a defined area of property on a plat or short plat for specific purpose(s) set forth in the easement document.

"Engineer" -- Any Washington State licensed professional engineer who represents the developer.

"ERU" -- The unit used to calculate sewer consumption. One Equivalent Residential Unit (ERU) for other than residential equals two hundred twenty-five gallons of wastewater per day. (Shelton Municipal Code Chapter 14.04, Section 14.04.130 Definitions and Chapter 14.28, Sewer Service-Rates and charges).

“Cues’ GraniteNet” -- Data collection software used in CCTV pipeline inspections.

"Half Street" -- A portion of an arterial roadway section modified to conform to when limited right-of-way is presently available, or when constructing a portion of the road section when less capacity is necessary for adequate levels of service.

"Inspector" -- The authorized representative of the City Engineer or Public Works Director who is assigned to the project site or any part thereof during construction.

"Interceptor" -- A sewer that receives flow from a number of main trunk sewers, force mains, etc.

"Lateral" -- That section of the sewer line extending from the City’s main to the right-of-way or easement line. Maintenance of the lateral is the responsibility of the property owner. (SMC 14.12.150)

"Level of Service (LOS)" -- An indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. LOS means an established minimum capacity of capital facilities that must be provided per unit of demand or other appropriate measures of need.

“Multi-Dwelling Unit (MDU)” -- A classification of housing where multiple separate housing units for residential inhabitants are contained within one building or several buildings within one complex. This classification includes duplexes, apartment buildings, condominiums, mobile home parks, trailer courts, and other like structures.

"NPDES" -- The 'National Pollutant Discharge Elimination System' permit program administered by the Washington State Department of Ecology.

"Plans" -- The plans, profiles, cross sections, elevations, details and supplementary specifications signed by a licensed professional Engineer and approved by the City, which show the location, character, dimensions and details of the work to be performed.

"Pretreatment" -- The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutants in wastewater prior to discharge to the City's system.

"Pretreatment Program" -- An approved plan that provides for pretreatment, monitoring, sampling, and conditioning of wastewater prior to discharge to the City system.

"Private Pump Station" -- A private pump station is a facility connected to a private sewer main, lateral or side sewer which conveys sewage or effluent by pumping to a City lateral, trunk, or interceptor sewer line. The design and construction of the private pump station must receive approval of the City prior to use. The private property owner will own, operate and maintain this pump station.

"Private Sewer" -- Pertains to a sewer not owned or maintained by the City.

"Private Street" -- Privately owned and maintained vehicular access, not including driveways, serving at least two (2) but no more than four (4) lots, extending across a private lot or tract with an access easement that originates from a public right-of-way. The number of lots served by the private street shall include the parcel the private street crosses unless the parcel’s sole purpose is to provide access.

"Project" -- General term encompassing all phases of the work to be performed and is synonymous to the term "improvement" or "work".

"Property" -- A lot, parcel, or tract of land together with the building and structures located thereon.

"Public Sewer" -- That portion of the system located within public rights-of-way or easements and which are operated and maintained by the City, including interceptors, trunks, mains and force mains along with all publicly controlled and maintained manholes, pump stations and other appurtenances.

"Public Street" -- Publicly owned and maintained street.

"Redevelopment" -- The conversion, structural alteration, relocation, significant alteration or improvement, or enlargement of any structure; and/or the addition or improvement of site features; for the purpose of changing the type of, or increasing the intensity of use of a site.

"Right-of-Way" -- A general term denoting public land, property, or interest therein acquired for or devoted to a public street, public access or public use.

"Road" -- An open general public way for the passage of persons and vehicles. Used interchangeably with street.

"Sanitary Sewage" -- Wastewater derived from domestic, commercial and industrial pretreated waste to which storm, surface and ground water are not intentionally admitted.

"Sewer Main or Trunk" -- A sewer that receives flow from individual services and from one or more mains.

“SCADA” -- (supervisory control and data acquisition) is a category of software application program for process control, the gathering of data in real time from remote locations in order to control equipment and conditions.

"Side Sewer" -- That portion of the system located on private property connecting the building sewer to the lateral. Maintenance of side sewers is the responsibility of the property owner.

"SMC" -- Shelton Municipal Code.

"State" -- Wherever the *Standard Specifications* uses the term "State" to define "owner", the term "State" shall be construed to mean the City of Shelton.

"Street" -- A public thoroughfare used for the passage of persons and vehicles from one place to another, including the sidewalks lining one or both sides. Used interchangeably with roads.

"Street Frontage of Lot" -- The distance between the two points where the lot lines intersect the boundary of public street right-of-way.

"Subgrade" -- The top surface of the roadbed on which sub-base, base, surfacing, pavement or layers of similar materials are placed.

“Unpaved Street” - An existing street segment within the City that is actively maintained by City crews and which has a gravel or compacted dirt driving surface.

"Utility" -- A company providing public service including but not limited to, gas, electric power, street, street lighting, telephone and other communication lines, water, sewer, solid waste, storm drainage, or cable television whether or not such utility is privately owned or owned by a governmental entity.

"Urban Density" -- Development of land at a minimum of four dwelling units per acre. Development for commercial or industrial uses that require urban services such as municipal water or sewer is considered to be urban in nature.

1.050 Changes to Standards

Changes and revisions to the City of Shelton Design and Construction Standards shall be considered on an annual basis, and revised as a new version each year with the title indicating the year which the revised standards shall be in effect. The Public Works Director shall provide a report to the City Council summarizing the revisions being considered as part of the annual update prior to implementing the proposed revisions.

1.060 Severability

If any part of these *City of Shelton Development Standards* shall be found invalid, all other parts shall remain in effect.

1.070 Design Standards

Detailed plans for new development or redevelopment within the City of Shelton, or proposed actions that would cause modifications to existing public roads, public rights of way, or

existing utility infrastructure, must be prepared by the Engineer and submitted to the City for plan review and approval prior to the commencement of any construction. The Engineer shall be a Professional Engineer, registered as such in the State of Washington.

Officially designated historical facilities and districts shall be highlighted.

All plans must be signed and stamped by the Engineer prior to submittal for plan review. Final plans shall be approved by the City prior to the start of construction. Any alteration(s) to the approved Final Plans shall be submitted by the Engineer and approved by the Public Works Director prior to construction.

Plan Preparation Standards: The plans prepared by the Engineer shall show all relevant surface features and all subsurface utilities, and shall show both plan and profile views. Separate plan sheets shall highlight the location of individual utilities (water, sewer, storm drainage, etc.) while also showing the other utilities. The plans shall show easements where utilities are on private property, and all utility facilities within those easements must be shown. The plans shall show invert elevations of water, sewer and storm drain mains at the outlet and all inlets of each manhole, slope of the main(s), and surface elevations of all surface structures. In the profile view, the finish ground elevation over the pipe(s) shall be shown. Notes shall be provided on the plans that refer to specific City standards for such things as catch basins, manholes, lampholes, crosswalks, water meter boxes, side sewers, etc. Horizontal and vertical clearances shall be shown between proposed and existing utilities. All cross connection control devices shall be detailed on the plans. If the Engineer is aware of any known or potential conflicts, these shall be highlighted.

Eight (8) sets of plans are required. All drawings shall be on 24" x 36" sheet size or as otherwise approved by the City. The minimum allowable scale shall be 1 inch = 40 feet. On small projects, the scale will be enlarged to adequately utilize the full plan sheet. Final plans for construction and As-Built plans shall be good quality reproducible ink on Mylar. The original reproducible copy of the drawings will be returned to the applicant’s Engineer after approval by the City.

Within 30 days following the completion of construction, the original signed plan on Mylar shall be modified as needed to be

"As-Built", and certified by the Engineer. "As-Built" plans shall be submitted to the City showing the true condition or configuration of what has been built. "As-Built" plans shall be on 24-inch x 36-inch sheet size and accompanied by the redlined drawing plans digital file in AutoCAD release 2011 or above, with plot files, fonts, shape files, and x-ref, as well as properly executed easement deeds as applicable. "As-Built" plans shall become the property of the City.

Plans and profile drawings, showing all existing and proposed facilities are required for all proposed transportation-related improvements, street illumination, traffic signalization, storm drainage, and sewer and water improvements. Specifications shall be required and submitted with the plans if General Notes do not adequately cover the project requirements. If the project is to be done in phases, each phase shall be clearly defined and the entire project shall be designed by an Engineer and approved by the City before any portions of the proposed improvement can be constructed. Sizing and layout shall take into account the entire project.

On occasion, the scope of the project (i.e., relocation of a hydrant or installing a new driveway to an existing single-family home) may not require engineered plans and can instead be handled via a Right-of-Way Access Permit. This option will be decided by the City.

1.080 Plan Review

All plans are to be submitted to the City together with any necessary easements or dedications. A preliminary check of the plans and other documents will be made by the City to ensure that the plans meet minimum requirements. If the plans appear to meet minimum requirements as to completeness, they will then be routed to the appropriate City staff for substantive/content review and the plan review process begins.

Submittals of plans may include construction drawings, specifications, design calculations, drainage calculations, Maintenance and Operations Manuals, and accompanying deeds, easements and/or other documents pertaining to the project. Additional information may be required from the applicant to ensure that the City's infrastructure needs are met and that the project is consistent with City of Shelton Comprehensive Plans, and future City needs.

Initial turnaround time for the review of plans is normally two weeks, but may be longer for larger projects. (Note: This is also the review time for any subsequent submittals.) The Engineer is then contacted by City staff, is notified of required revisions, or is requested to submit the original drawings for final approval. Additional review time will be required if revisions are necessary.

Some proposed projects may require other governing agency approval(s), which might require additional time.

If revisions to the plans require three (3) or more submittals, additional fees will be levied by the City. The fee for third submittal review is established by Resolution of the City Council. Third submittal shall mean the third and any subsequent submittal. Once all the corrections have been made, the original reproducible plans shall be submitted for City signature. The originals will be returned and the City shall receive five (5) copies for official records. All prints used for construction shall bear the City approval.

Approved plans will be returned to the Engineer after all plan review fees have been paid.

1.090 Construction Control

Work performed for or impacting the construction of streets and utilities, or private development that falls under these *Standards*, whether by or for a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with approved plans. It is emphasized that no work shall be started until such plans are approved. Any revisions to such plans shall be submitted by the Engineer and approved by the City before being implemented. Failure to receive the City's approval can result in removal or modification of construction not in conformance with approved plans, at the developer’s expense. All improvements shall be staked by a licensed professional civil engineer or surveyor and appropriate right-of-way/easement locations shall be determined.

The Engineer shall include the General Construction Notes in Section 1.220 on any plans dealing with construction of alternations, extensions or connections to public facilities, unless otherwise directed by the City.

1.100 Inspection

All work performed within the public rights-of-way, easements, private development that falls under these *Standards*, or as otherwise described in these *Standards*, whether by or for a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with the approved plans and these *Standards*. Any revision(s) to the Final Plans must be submitted by the Engineer and approved by the City before being implemented.

It is the responsibility of the developer, the developer's contractor or their agents to notify the City in advance of the commencement of any construction work. The contractor shall contact the City to schedule a preconstruction meeting and/or field review prior to the commencement of work (two business days' notice is required). Inspections are to be scheduled through the Public Works Department.

It is the responsibility of the developer, the contractor or their agents to have an approved set of plans and any necessary permits on the job site whenever work is being performed. The City shall have authority to enforce construction authorized by the approved plans and these *Standards* as well as other referenced or pertinent specifications. The City will assign personnel as necessary to inspect the work being performed.

All specific inspections, test measurements or actions required of all work and materials are set forth herein. All tests shall be performed at the developer's or contractor's expense and witnessed by the City Inspector. Failure to comply with the provisions of these *Standards* may result in stop work orders, removal of work accomplished, at the developer's expense, or other penalties as established by Ordinance.

Failure to contact the City for required inspection may result in claims against bonds or other penalties as established by Ordinance.

A project is considered final when the City issues a letter of Final Acceptance.

1.110 Fees

Fees and applicable charges shall be as established by the City Council by the passage of a Resolution adopting a fee charge schedule except where specifically set forth in the Shelton Municipal Code (SMC).

All plan review fees are due prior to the release of approved plans. In addition, there may be various miscellaneous connection, inspection, system development charges and/or impact fees imposed as applicable. The City will not release the approved plans and/or issue a letter of Final Acceptance until **all** fees and charges have been paid to the City.

1.120 Permits

Some of the work covered under these *Standards* may require multiple permit reviews and approvals from the responsible authority. Any questions about permits, approvals and agreements should be directed to the City as soon as possible.

The following general categories describe some of the permits, approvals and agreements that may be needed along with the issuing permit/code authority identified in parentheses.

A. Environmental Review

For most projects, an environmental checklist must be completed by the project representative and submitted along with plans, specifications, and other information when approval or permits are being requested for a project. The City will conduct the environmental review and make the SEPA threshold determination.

B. Construction Permits

1. Business License: All entities doing business in the City must obtain a City of Shelton Business License (Community Development).

2. Right-of-Way Permit. Because of the need to preserve public safety for vehicular and pedestrian traffic, a Right-of-Way permit (Public Works) is required for any work within the public right-of-way. Such work may include utilities, lane closures, parking strips, driveways, curbs, sidewalks, haul routes and/or permission to temporarily close a street or a portion thereof for construction activities.

   A traffic control plan shall be submitted for approval. In the case of contracted work by the City, the signing of the contract shall constitute the Right of Way Permit. The contractor shall notify all appropriate agencies of approved closures and/or detours (Fire, Dispatch, Mason

Transit Authority, School Districts, media (Journal, ifiberone radio).

A separate Right-of-Way Permit shall be obtained for each separate project before any person, firm, or corporation shall commence or permit any person, firm, or corporation to commence any work within a public right-of-way.

Work includes:, grading, paving, leveling, altering, constructing, repairing, removing, excavating or placement of any pavement, sidewalk, crosswalk, curb, gutter, driveway, gutter, drain, sewer facility, water facility, conduit, tank, vault, utility pole, mailbox, street banner or any other structure, utility or improvement located over, under or upon any public right-of-way or easement in the City of Shelton, or place any other material or item tending to obstruct, damage, disturb, occupy, or interfere with the free use thereof or any improvement situated therein, or cause a dangerous condition.

3. Building Permit: The project may require a Building Permit (Community Development). A Building Permit is required for most construction work including alteration, repairs and demolition. Construction of structures greater than 4,000 square feet requires the submittal of an environmental checklist.

4. Excavation and Grading Permit: The project may require a Clearing and Grading Permit (Public Works) if the amount of earthen material being moved exceeds 50 cubic yards.

5. State Highway (WSDOT): Some City streets are also State highways. The contractor shall obtain approval for work upon or temporary closure of State highways from WSDOT as required.

6. County Right of Way Permit: Application to and approval of a Right of Way Permit from Mason County may be required for work on City of Shelton facilities in unincorporated Mason County.

7. Other: There are several other permits or approvals that may be required and which may be referred to in these *Standards* including but not limited to Site Plan Review

approval, plat and short plat approvals, Certificate of Occupancy issuance, zoning and other land use approvals, planned unit development approval, and shoreline substantial development approval.

1.130 Financial Guarantees for Public Projects

Financial guarantees in the form of bonds or other allowable securities may be required by the City on all projects affecting public facilities to guarantee the performance of or maintenance of required improvements, including improvements constructed within unincorporated areas of Mason County. The type and amount of security shall be per code, or, if not specified, be at the discretion of the City. Types of securities include, but are not limited to, a bond with a surety licensed to do bonding business in the State of Washington, a cash deposit, an assigned savings account, a set-aside letter, or a letter of credit.

A. Performance Guarantee. No construction permit (See Section 1.120.b above) shall be issued until a performance bond or other allowable security as outlined above, has been posted with the City in an amount equal to one hundred fifty percent (150%) of the cost of the public works improvements. A building permit and/or certificate of occupancy shall not be issued until all public improvements are completed and final acceptance granted, unless otherwise allowed by the City.

B. Maintenance Guarantee. Prior to the final acceptance of public improvements, a maintenance guarantee for materials and workmanship shall be posted with the City for a period of 24 months after final acceptance of construction and in the amount equal to 20 percent of the estimated cost of the public improvements. Release of the maintenance guarantee will occur 18 months from the date of final acceptance of construction if all maintenance has been performed as required and accepted by the City.

1.140 Utility Alignments

Locations of new or relocated utilities shall conform to City Standards as nearly as practical, be compatible with the existing installations and shall comply with all provisions as set forth in SMC Chapter 12.20 Excavations and Encroachments. Existing utilities shall be shown on the plans using the best information available. This verification will require exploration/excavation (potholing) if utilities are in conflict with the proposed design. The

contractor/developer shall be responsible for utility locates in conjunction with the project.

Utilities converted from overhead to underground on existing roadways will be considered as if they are new utilities.

1.150 Easements

Utilities shall be placed in the public right-of-way unless terrain or other topographic obstacles dictate otherwise, or as otherwise approved by the City. Where the City approves public utilities and/or their conveyance systems across private lands, an easement must be granted to the City. It is the developer's responsibility to provide the required documentation to the City to process, record, and file all easements. If the property is platted, the easement may be conveyed when the short plat or final plat is filed. All easements not shown on a plat must be prepared by a licensed land surveyor.

Easement widths shall be fifteen (15) feet minimum for a single utility and twenty (20) feet minimum for dual utilities, unless a wider width is determined to be necessary by the City.

Construction easements shall be thirty (30) feet minimum in total width, including the permanent easement. When trench depths dictate or where pipe diameter or vault widths exceed four (4) feet, a wider easement may be required by the City.

Easements are required to be submitted in draft, unsigned for review and approval. Signed copies are required prior to plan approval. Any change in design that places a public facility, i.e., water main, sewer main, sidewalk, etc., outside of an easement may necessitate the stopping of construction until plans and easements can be resubmitted and approved. Easements will be filed by the City upon satisfactory completion of work.

1.160 Latecomers Agreement

Any person who constructs water or sewer main extension (including pump stations) that will benefit properties abutting the extension may enter into a contract with the City that is commonly termed a "Latecomers Agreement." As determined by the City at its sole discretion, the Latecomers Agreement may allow the developer to be reimbursed for that portion of the construction cost which benefits adjoining properties. To be considered by the City, the format for a Latecomers Agreement **must** be submitted for review and approval prior to plan approval.

Latecomers Agreements submitted after plan approval **will not** be accepted.

The developer is responsible for initiating, executing and submitting the Latecomers Agreement to the City. The Latecomers Agreement shall include a list of those properties which will benefit from the extension, a map outlining and designating these properties, legal descriptions as required by the City, and backup data supporting the costs submitted. The City shall be responsible for filing and recording a covenant on all affected parcels and property and notifying current and future owners of the Latecomers Agreement reimbursement encumbrance.

The developer will be responsible for all fees, charges, and expense involved for the City to perform this procedure. The City will collect the latecomer's fee from persons wanting to connect to the extension and subsequently see that the developer receives the payment. Expiration of this agreement shall be fifteen (15) years from the date of execution.

1.170 Traffic Control

As specified in Section 1.120 above, the contractor must obtain a Right of Way Permit before commencing any work in the public right-of-way. The contractor shall also be responsible for interim traffic control during construction on or along traveled roadways. Traffic control shall follow the guidelines of the WSDOT/APWA Standard Specifications. All barricades, signs, and flagging shall conform to the requirements of the MUTCD.

City utilities constructed within Mason County right-of-way shall follow all traffic control requirements as set forth by Mason County Department of Public Works and the MUTCD.

Signs must be legible and visible and shall be removed at the end of each workday if not applicable after construction hours.

When road closures and detours cannot be avoided, the contractor shall notify the City. The City may require a detour plan to be prepared, submitted and approved prior to closing any portion of a City right-of-way.

1.180 Call Before You Dig

All developers/contractors are responsible for timely notification of all utilities in advance of any construction in right-of-way or utility

easements. The utilities one-call Underground Location Center phone number is 1-800-424-5555 (or 811).

The City is not responsible for locating private lines or other utilities in the right-of-way. The contractor shall be responsible for field verifying by pot-holing or other means as needed, all potential public or private utility conflicts.

1.190 Utility Extension

Anyone who wishes to extend any City utility should contact the City to see if there are any extension/connection fees or any special extension requirements.

For service to adjacent property and/or future development, as determined by the City, utility mains shall be extended across the face of or to and through the extremes of the property being developed. Extensions shall be to the middle of intersections and through to the end of any pavement. Utility extensions shall be sized per the appropriate utilities' Comprehensive Plan or to provide for further extensions, as directed by the City.

1.200 Annexation Requirement

Every applicant for water and sewer service outside the city limits, except for municipal corporations or quasi-municipal corporations, must sign an agreement with the City not to protest annexation. The owner shall provide the City with an irrevocable power of attorney to allow a City representative to sign a petition for annexation on behalf of the property owner or the property owner shall agree to sign a petition for annexation of his/her property when requested to do so by the City. The agreement shall be recorded against the property in the Mason County Auditor's office and shall constitute a covenant running with the land. All provisions of the agreement shall be binding on the owner and all other persons subsequently acquiring any right, title or interest in or to said property.

Owners of property located outside the City Urban Growth Area boundary may make application for sewer and water service to their property. The City Council shall review the application and may, in its sole discretion, allow the extension or expansion of sewer and water service if the Council finds:

1. That the requested service is necessary to protect basic public health and safety and the environment;

2. That the requested service is financially supportable at rural densities and does not permit urban development;
3. That the City's NPDES permit will not be affected by the extension or expansion; and
4. That the extension or expansion is consistent with the goals of the City's Sewer Comprehensive Plan, its Water Comprehensive Plan, and all other applicable law.

1.210 Standards in Shelton Urban Growth Area

City utilities may be extended to properties within the Shelton Urban Growth Area only after the property is legally committed to eventual annexation per Section 1.200. Utility extensions may be permitted after the following policies are satisfied. These policies have been adopted by both the City of Shelton and Mason County.

A. City utilities may be extended to properties within the Urban Growth Area (UGA) either upon annexation or through the creation of a Utility Extension Agreement with the owners of properties not annexed. (County Policy U-151 B1)

B. No utility extension will be permitted to any non-annexed property within the UGA unless a Utility Extension Agreement is signed between the owner of the subject property and the City of Shelton. The agreement shall provide for the following: (County Policy U-151 B2):

    1. Utility Extension Agreements will be an instrument recorded against the title of the property and the responsibilities therein shall transfer to successors in ownership of all or part of the property. (County Policy U-151 B2a)

    2. Extension and hook-up must not result in lowering of service delivery below adopted City LOS standards as determined by the City. Hook-ups outside of the City shall not be permitted until such standards are adopted, as determined by the City. (County Policy U-151 B2b)

    3. Water hook-up will not be allowed until a contribution to a source development fund is made by the property owner/developer, as determined by the City. (County Policy U-151 B2d)

    4. Extensions will not be permitted unless agreement is made to pay a system development charge as identified by the City in a rate study. (County Policy U-151 B2e)

5. All costs for a utility system extension, the steps necessary to maintain level of service (LOS), sewer system I&I fund contributions, water source development fund contributions and system development charges shall be borne by the property owner served. (County Policy U-151 B2f)

6. All served property must have a commitment to annex when contiguous and requested by the City placed on the property title. (County Policy U-151 B2g)

7. All utility users shall be subject to rates and surcharges as established by the City of Shelton. (County Policy U-151 B2h)

8. In the event that a Utility Extension Agreement is approved by the City in an area that is served by an existing State Department of Health approved water system; that system may continue to be operated by the present owners or their satellite management agency. Fire flow, service line size, and main size will remain until State DOH requires an upgrade in order to obtain a green operating permit. (County Policy U-151 B2i)

C. In addition to all conditions listed above, the following must be provided in Utility Extension Agreements to extend City services to new development not vested by virtue of a complete development application prior to the adoption of (these standards). (County Policy U-151 B3)

1. City owned utilities will only be extended to land uses consistent with the City's Comprehensive Plan Future Land Use Map as determined by the City. (County Policy U-151 B3a)

2. City owned utilities will only be extended to development meeting City development standards. (County Policy U-151 B3b)

3. When extended to residential development, City owned utilities will only be extended to development that meets the definition of urban densities as per Joint Planning Agreement and is consistent with the policies for subdivision of land therein. (County Policy U-151-B3c)

4. Storm water systems (in the UGA) shall be designed and constructed in compliance with the requirements of the Washington State Department of Ecology Stormwater Manual for the Puget Sound Basin and all adopted storm water master plans or storm water ordinances and basin plans. Those properties designated by these plans as draining to City of Shelton owned and maintained facilities shall be included in the City Storm Water Utility Program. (County Policy U-151 B3d)

1.220 General Notes (For all Projects)

1. All workmanship and materials shall be in accordance with the most current City of Shelton *Standards* and the most current edition of the State of Washington Standard Specifications for Road, Bridge and Municipal Construction (WSDOT/APWA).

2. All safety standards and requirements shall be complied with as set forth by OSHA, WISHA, and the Washington State Department of Labor and Industries.

3. All work in the City requires a City of Shelton Business License.

4. Prior to working within the City right-of-way or on City property, the contractor must obtain a City of Shelton Right-of-Way Permit. All contractors shall be licensed and bonded in the State of Washington. Proponent shall comply with all other permits and other requirements of the governing authority or agency. It is the contractor's responsibility to verify the location of the right-of-way.

4. A pre-construction meeting with the City of Shelton is required. The meeting shall be scheduled a minimum of two (2) days before the start of construction. Contact the City Engineering Department at (360) 426-9731 to schedule.

5. It is the contractor's responsibility to notify the City of his/her schedule. Inspection by City personnel shall be during City work hours. City inspection hours are 8:00 AM to 5:00 PM Monday through Friday, except holidays. The proponent must give the City a minimum of 24-hour notice for inspections. No trenching on public right-of-way after 4:00 PM unless otherwise approved by the City. Other work such as backfilling, cleanup, etc., or as approved by the City is acceptable if 24 hours' prior notice is provided to the City.

6. Temporary erosion/water pollution measures shall be required in accordance with section 1-07.15 of the WSDOT/APWA Standard

Specifications the Washington State Department of Ecology Storm Water Management Manual for the Puget Sound Basin, and the Shelton Municipal Code.

At no time will silts and debris be allowed to drain into an existing or newly installed storm water facility or onto adjacent roads or properties. The contractor shall not release storm water to the sanitary sewer system. All erosion control and water pollution prevention measures shall be regularly inspected and maintained by the contractor.

7. It is the Contractor's responsibility to notify all emergency services (Fire, Police, etc.) if streets or other accesses are obstructed. Within the City of Shelton, Dispatch at (360) 426-4441 will notify Police and Ambulance. The Contractor shall be responsible for notifying the Shelton Fire Department.

The following are telephone numbers the contractor may need. These are provided for convenience only and are subject to change without notice.

City Shop	(360) 432-5189
City Engineering	(360) 426-9731
City Treatment Plant	(360) 426-6521
City Hall	(360) 426-4491
Fire Department	(360) 426-5533
Mason Transit Authority	(360) 427-5033
Shelton School District	(360) 427-8610

8. The Contractor shall notify and work with all affected property owners. The Contractor shall provide the City with emergency telephone numbers at the preconstruction meeting and shall provide a foreman on site during all working hours.

9. The Contractor shall be responsible for all traffic control in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and Department of Labor and Industries. Prior to disruption of any traffic, traffic control plans shall be prepared and submitted to the City for approval. No work shall commence until all approved traffic control is in place.

10. The Contractor shall be fully responsible for the location and protection of all existing utilities. The contractor shall verify all utility locations prior to construction by calling the Underground Locate line at 1-800-424-5555 or 811 a minimum of two (2) business days prior to any excavations.

11. Water, sewer or storm service lines broken on private property shall be repaired immediately by the contractor in accordance with the Uniform Plumbing Code (UPC) or other appropriate standards and may require a permit, contact the City Building Official

    City service lines broken in the City right-of-way shall be reported to the City and repaired immediately by the contractor. If not repaired within 24 hours, the City will repair and the contractor will be billed for the repair work on a time and materials basis for marked utility lines. Reports should be directed to (360) 432-5189 during regular business hours, or (360) 426-4441 during non-business hours.

12. All utilities shall be staked for grades and alignment by a licensed Engineering or Surveying firm capable of performing such work.

13. Signed, approved blueprints shall be on site at all times while work is being performed.

14. The Contractor shall restore work area to same or better condition unless otherwise approved or specified.

15. All disturbed areas, other than pavement and rocked surfaces, shall be seeded and mulched, or similarly stabilized to the satisfaction of the City and in accordance with the Standards. For sites where grass has been planted, the performance and/or maintenance guarantees will not be released until the grass has been thoroughly established, unless otherwise approved by the City.

16. If existing native material is determined by the City to be suitable for backfill, the Contractor may use the native material.

17. All asphalt restoration shall be as specified in the Standard Detail T-18 or to the depth of the existing pavement, whichever is greater. Existing asphalt edges shall be saw cut to a smooth straight edge prior to final patching, unless otherwise approved by the City.

18. All concrete restoration shall be saw cut to a smooth, straight edge prior to final patching, unless otherwise approved by the City. 3000 psi concrete shall be used, and shall be poured to the same depth and alignment as the existing pavement. The City will require doweling per Standard Detail T-18.

19. All permanent patching shall be accomplished within seven (7) calendar days unless otherwise approved by the City. Any temporary patch that requires more than seven (7) calendar days shall be hot mix asphalt concrete.

Temporary patching shall be 2-inch depth Class B asphalt concrete pavement, 2-inch medium curing (MC-250) liquid asphalt (cold mix), 2-inch asphalt treated base (ATB) or steel plates.

The Contractor shall maintain the patch. If not properly maintained, the City will perform any necessary repair and bill the Contractor.

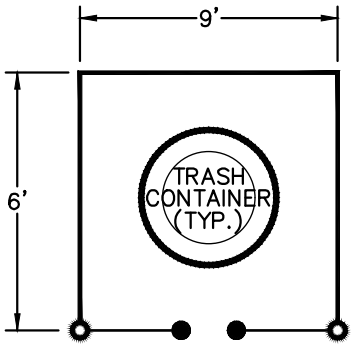
LIST OF DRAWINGS
CHAPTER 1 MISCELLANEOUS

MISCELLANEOUS

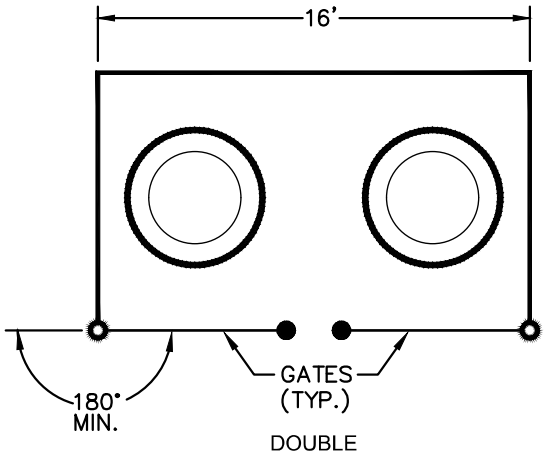
TEMPORARY EROSION AND SEDIMENTATION CONTROL

TABLE OF CONTENTS

MISCELLANEOUS DETAILS



SINGLE
CONTAINER ENCLOSURE



DOUBLE
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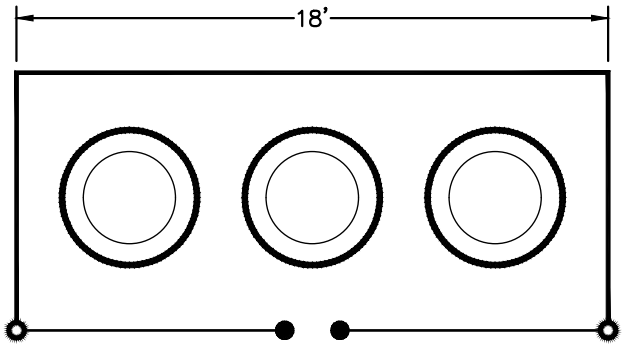

TRIPLE
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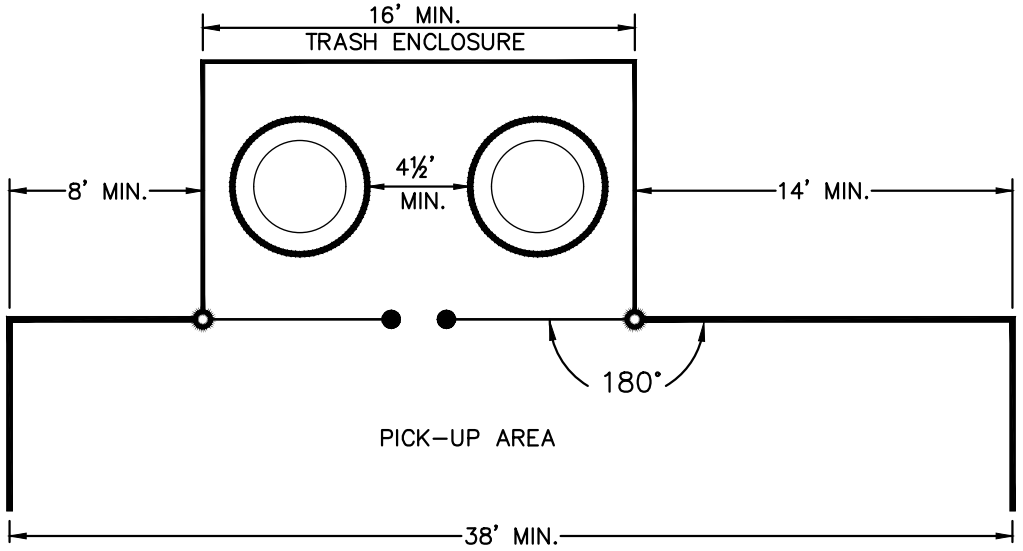

NOTES:

1. GATES MUST SWING A FULL 180° MIN. HEIGHT OF ENCLOSURE 5'–0". THESE ENCLOSURES ARE ONLY LARGE ENOUGH FOR GARBAGE CONTAINERS. OTHER CONTAINERS OR ITEMS PLACED IN ENCLOSURE WILL MAKE PICKUP DIFFICULT OR IMPOSSIBLE.

2. A GARBAGE ENCLOSURE IS NOT REQUIRED, HOWEVER, IF ONE IS BUILT, IT MUST CONFORM TO THESE SPECIFICATIONS.

CONTAINER SIZE	DIAMETER TOP	DIAMETER BOTTOM
300 GAL.	60"	41"
90 GAL.	36"	24"
60 GAL.	32"	24"

CITY of SHELTON WASHINGTON

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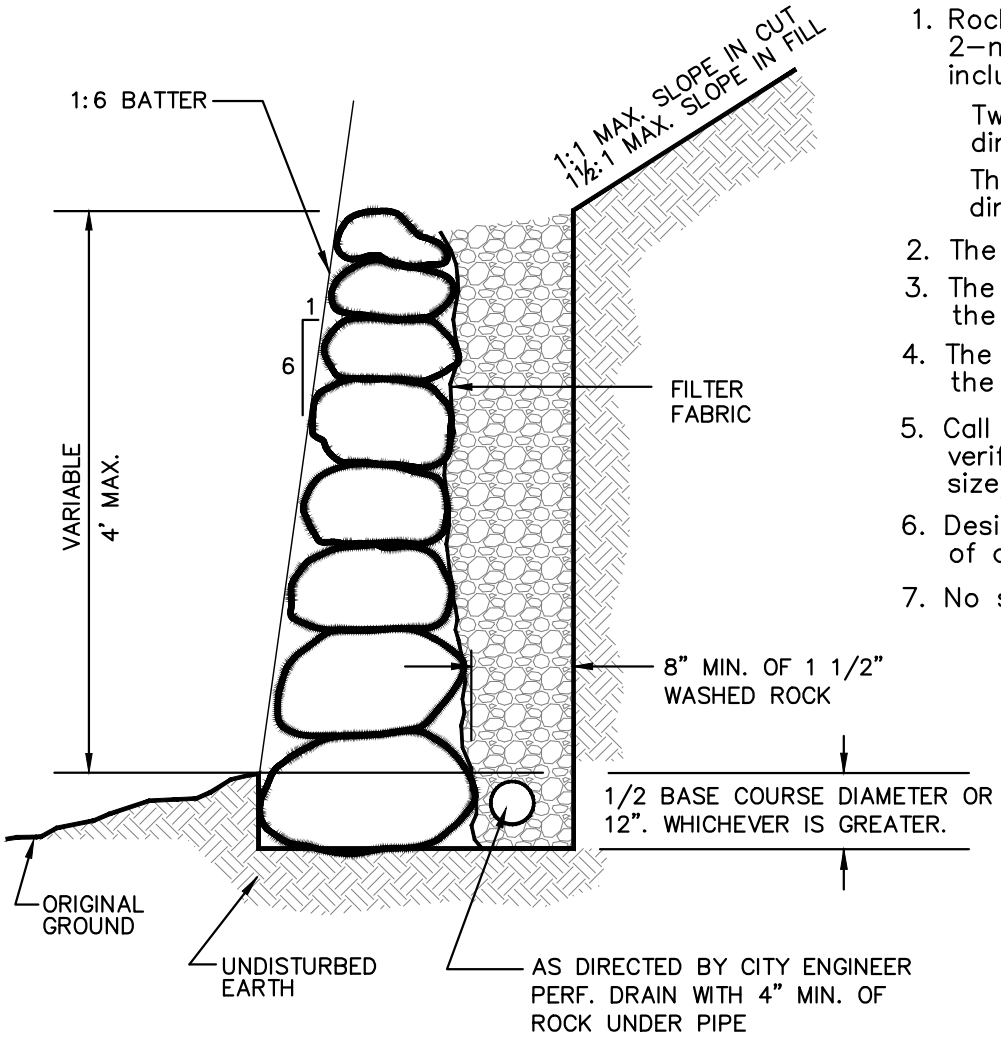
GARBAGE ENCLOSURE DETAIL

APPROVED: CRAIG GREGORY
Public Works Director

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-01



GENERAL NOTES:

1. Rockeries of 4' or lower shall be constructed of 3–man to 2–man from bottom to top. Rock size catagories shall include:

   Two–man rocks (300 to 600 pounds), 13 inches in least dimension;

   Three–man rocks (800 to 1200 pounds), 16 inches in least dimension;

2. The rockery shall be installed with a smooth face.
3. The long dimension of the rocks shall be oriented towards the bank to provide maximum stability.
4. The rock shall be placed so as to lock into two rocks in the lower tier.
5. Call for inspection prior to base course being placed (for verification of rockery height, foundation material and rock size).
6. Design varying from those indicated shall carry the seal of a civil engineer experienced in soil mechanics.
7. No surcharge

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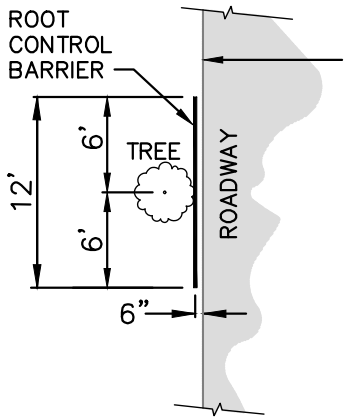
ROCK WALL
4' HIGH OR LESS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-02



ATTENTION

USE ONE OF THE FOLLOWING TYPES:

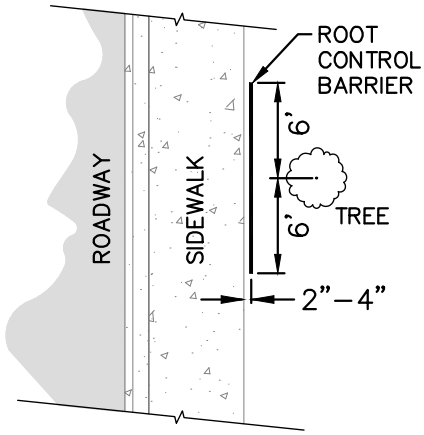
CO. NAME: DEEPROOT
ITEM: TREE BARRIER
MODEL NO.: UB36–2

CO. NAME: CENTURY PRODUCTS
ITEM: TREE BARRIER PANEL
MODEL NO.: CPU 36–2

AN EQUAL PRODUCT MAY BE USED AS APPROVED BY CITY ENGINEER.

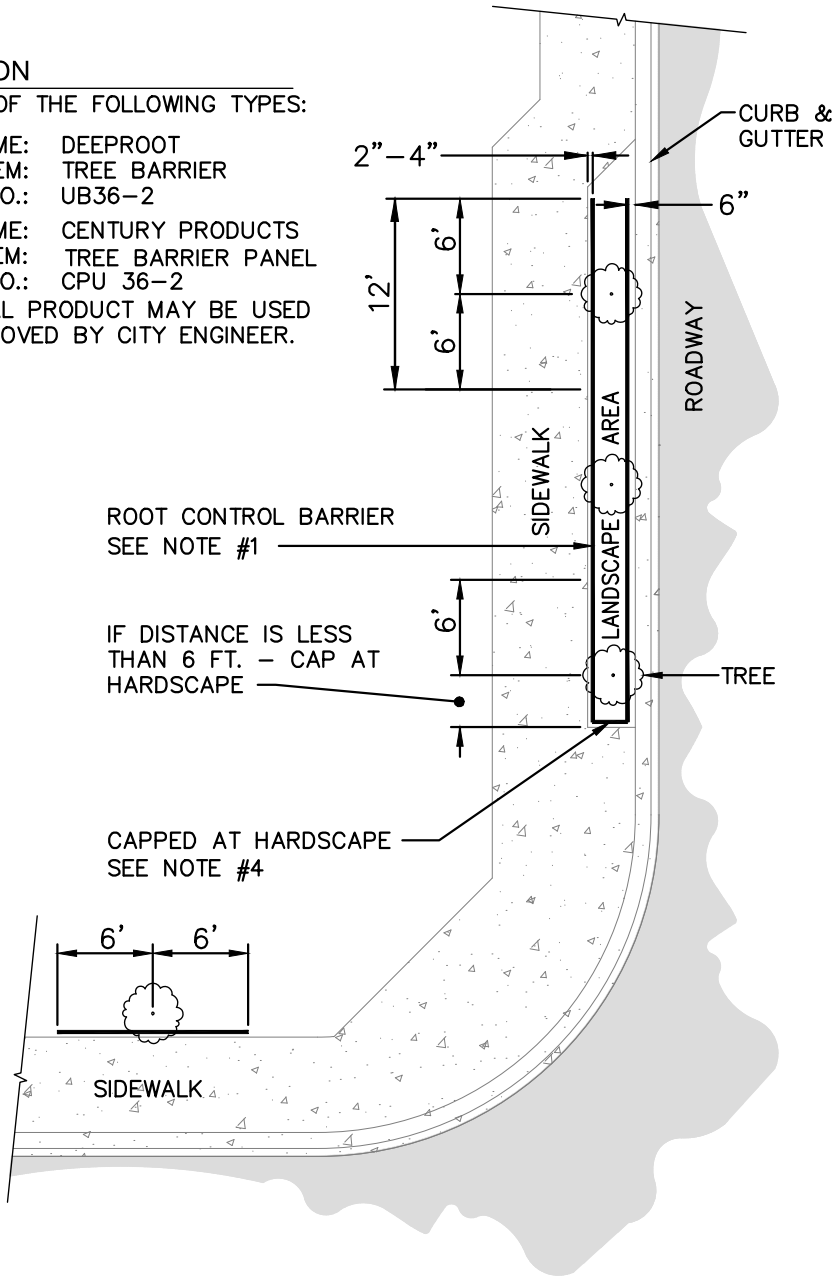
TREE BY ROADWAY

NTS



TREE BY SIDEWALK

NTS



TREES BY SIDEWALK & IN LANDSCAPE STRIP

NTS

NOTES

1. IF THE DISTANCE BETWEEN TREE TRUNKS ARE 12 FT. OR LESS, INSTALL CONTINUOUS BARRIER ALONG HARDSCAPE UNTIL 6 FT. BEYOND LAST TREE TRUNK.

2. OFFSET ROOT CONTROL BARRIER 6 INCH MIN. FROM ROADWAY AND CURB & GUTTER AND 2" TO 4" FROM SIDEWALKS.

3. IF NO HARDSCAPE IS ENCOUNTERED, DISTANCE FROM TRUNK OF TREE TO ROOT CONTROL BARRIER CANNOT BE LESS THAN 6 FT. IN ANY DIRECTION.

4. HARDSCAPE DEFINED HERE AS ANY PUBLIC OWNED SURFACE TREATMENT SUCH AS SIDEWALK, CURB & GUTTER, AND ROADWAY.

SPECIAL NOTE:

SEE SHELTON STD. DETAIL M–04 FOR ADDITIONAL NOTES & DETAILS.

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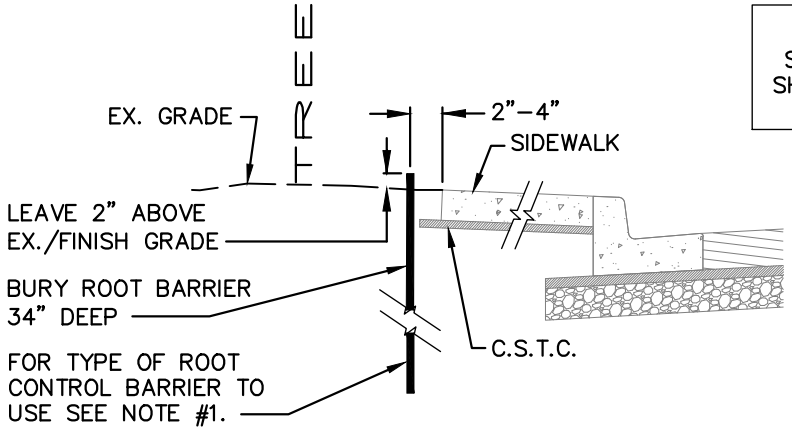
ROOT CONTROL BARRIER PLAN VIEWS

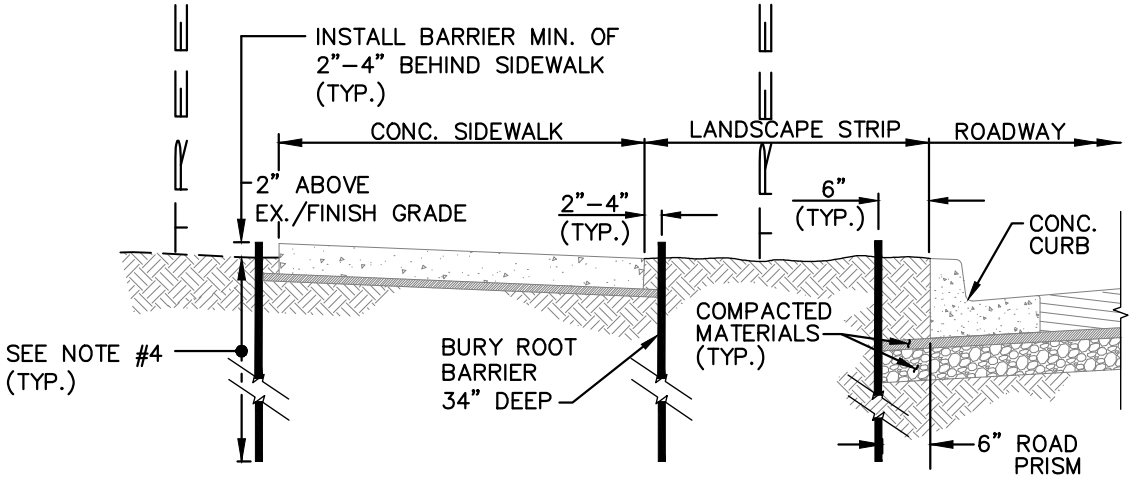
APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-03

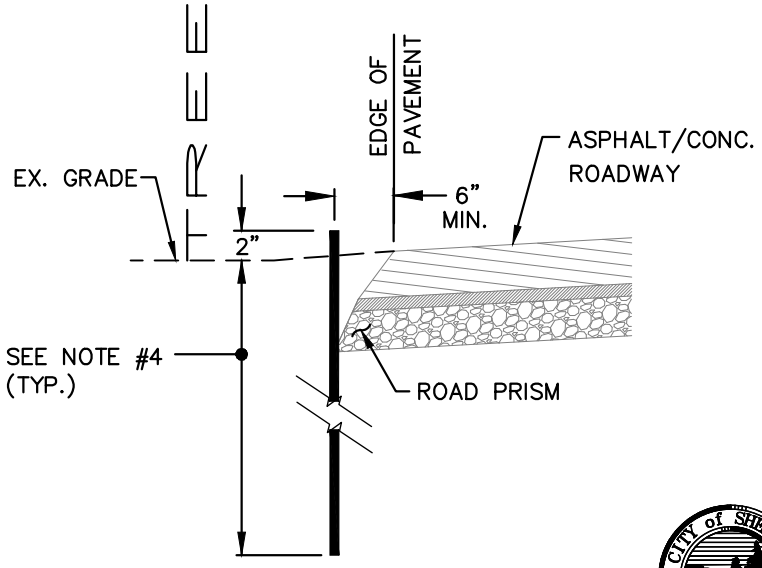
SPECIAL NOTE:
SEE SHELTON STD. DETAIL SHT. M-03 FOR ADDITIONAL NOTES & DETAILS.



TREE BY SIDEWALK
NTS



TREES BY SIDEWALK w/ LANDSCAPE STRIP
NTS



TREE BY ROADSIDE
NTS

NOTES

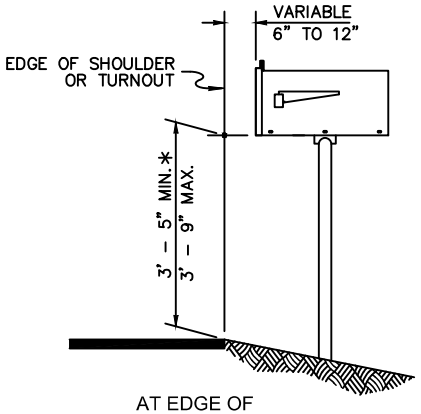
1. USE ONE OF THE FOLLOWING TYPES:
   CO. NAME: DEEPROOT
   ITEM: TREE BARRIER
   MODEL NO.: UB36-2
   CO. NAME: CENTURY PRODUCTS
   ITEM: TREE BARRIER PANEL
   MODEL NO.: CPU 36-2
   AN EQUAL PRODUCT MAY BE USED AS APPROVED BY CITY ENGINEER.
2. AFTER ROOT BARRIER IS INSTALLED, BACKFILL w/ APPROVED MATERIAL AND COMPACT TO 95% MAX. DENSITY.
3. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS & AS APPROVED BY CITY ENGINEER.
4. INSTALL 36" LONG ROOT CONTROL BARRIER 34" DEEP. LEAVE 2" EXPOSED ABOVE FINISHED ELEVATION.

"Building A Stronger Community TOGETHER"

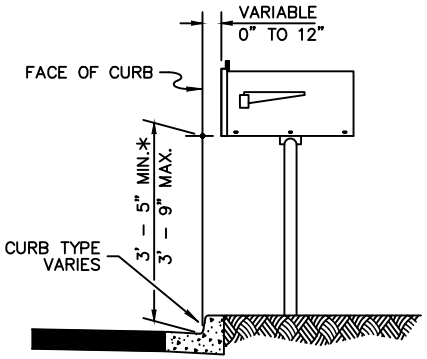
ROOT CONTROL BARRIER SECTION VIEWS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

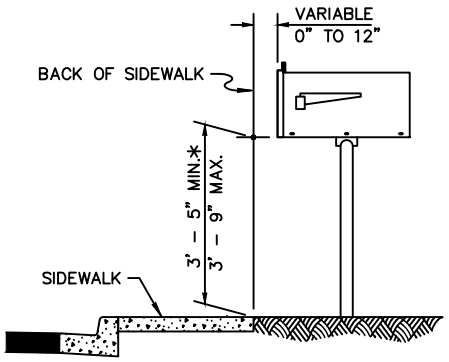
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-04



AT EDGE OF SHOULDER



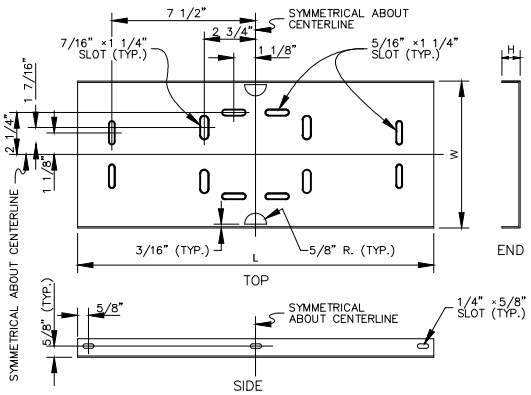
BEHIND CURB



BEHIND SIDEWALK

* UNLESS OTHERWISE SHOWN IN THE PLANS

MAILBOX & PLATFORM DIMENSIONS						
SIZE	MAILBOX DIMENSIONS			PLATFORM DIMENSIONS		
	L	W	H	L	W	H
1	19"	6 1/2"	8 1/2"	17"	6"	1"
1A	21"	8"	10 1/2"	19"	7 1/2"	1"
2	24"	11 1/2"	13 1/2"	21"	11"	1"



PLATFORM DETAIL

MAIL BOX NOTES:

A. LOCATION OF PEDESTAL PARCEL LOCKER WILL BE APPROVED BY PUBLIC WORKS DIRECTOR AND THE POSTAL SERVICE.

B. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD FOR NEIGHBORHOOD DELIVERY & COLLECTION BOX UNIT AND PADS. FOR SPECIFIFC POSTAL REQUIREMENTS, CONTACT THE POSTMASTER.

C. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.

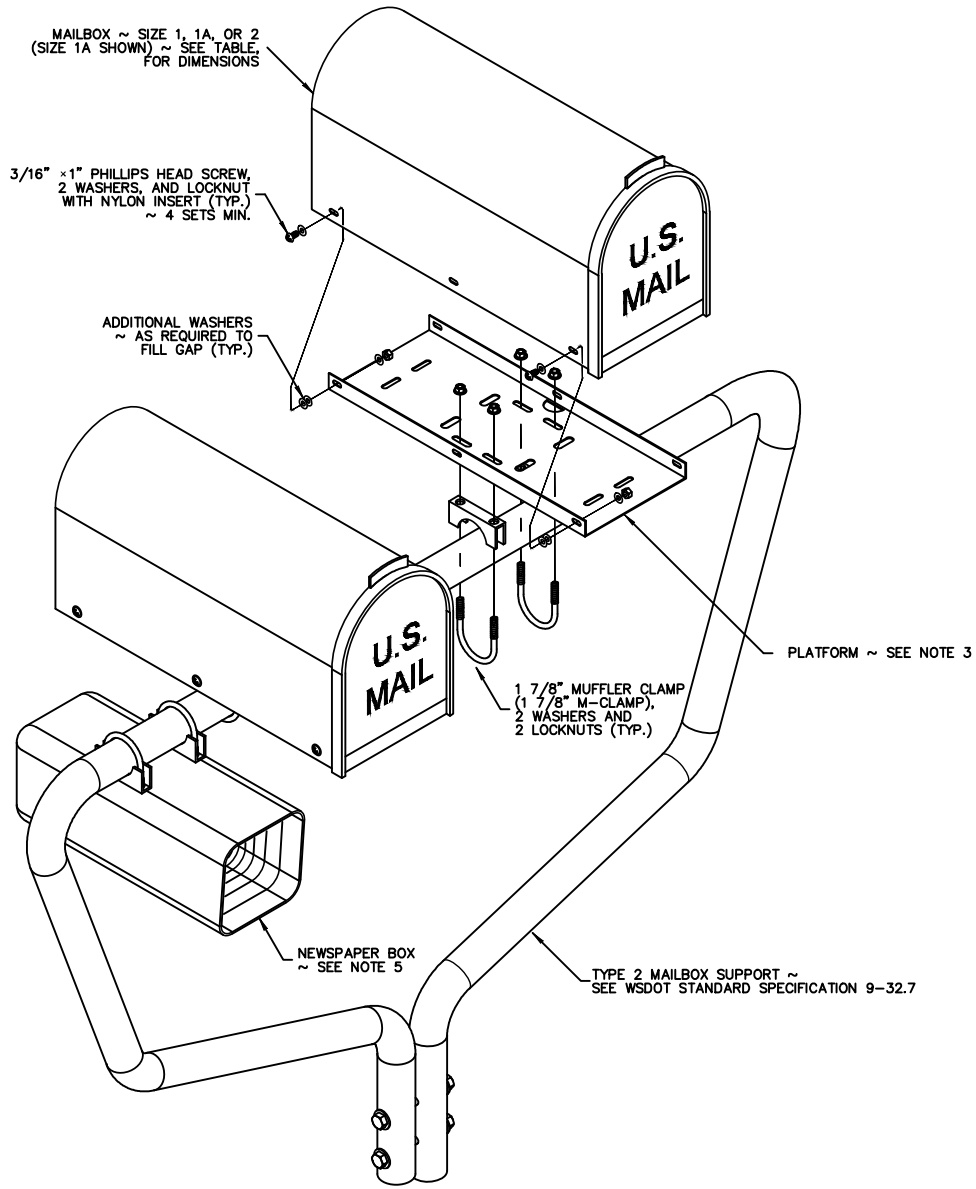
D. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE PUBLIC WORKS DIRECTOR FOR PROTECTION OF VIEWS AND ACCESS.

"Building A Stronger Community Together"

MAILBOX CLUSTER INSIDE/OUTSIDE PAVED AREAS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-05A



NOTES

1. THE ANCHORING SYSTEM SHALL MEET NCHRP 350 CRASH TEST CRITERIA. USE A SOCKET AND WEDGE SYSTEM OR THE ANCHORING SYSTEM SUPPLIED BY OR RECOMMENDED BY THE TYPE 2 SUPPORT MANUFACTURER.
2. A MAXIMUM OF FIVE MAILBOXES MAY BE INSTALLED ON A TYPE 2 SUPPORT.
3. THE PLATFORM DESIGN SHOWN IN THIS PLAN IS DETAILED IN THE PLATFORM DETAIL, SHEET 2. THE DESIGN FEATURES SLOTS THAT ACCOMMODATE SEVERAL TYPES OF MAILBOX SUPPORTS; ONLY THOSE SLOTS NECESSARY FOR ASSEMBLING THE TYPE BEING INSTALLED ARE REQUIRED. AN ADJUSTABLE PLATFORM MAY BE USED IN LIEU OF THIS PLATFORM DESIGN. ADJUSTABLE PLATFORMS MUST FIT THE 1 7/8" M-CLAMP.
4. CENTER THE MAILBOX ON THE PLATFORM TO ENSURE SPACE FOR THE MAILBOX DOOR TO OPEN AND TO ALLOW SPACE FOR INSTALLING THE FASTENERS. SPACING OF MAILBOX MOUNTING HOLES VARIES AMONG MANUFACTURERS. ATTACHMENT OF THE MAILBOX TO THE PLATFORM MAY REQUIRE DRILLING ADDITIONAL HOLES THROUGH THE MAILBOX TO FIT THE PLATFORM.
5. ATTACH A NEWSPAPER BOX TO A TYPE 2 SUPPORT WITH TWO 1 7/8" MUFFLER CLAMPS SPACED 4" APART. FIELD DRILL 7/16" HOLES IN THE NEWSPAPER BOX TO FIT. NEWSPAPER BOXES MUST NOT EXTEND BEYOND THE FRONT OF THE MAILBOX WHEN THE MAILBOX DOOR IS CLOSED.

MAIL BOX NOTES:

A. LOCATION OF PEDESTAL PARCEL LOCKER WILL BE APPROVED BY PUBLIC WORKS DIRECTOR AND THE POSTAL SERVICE.

B. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD FOR NEIGHBORHOOD DELIVERY & COLLECTION BOX UNIT AND PADS. FOR SPECIFIFC POSTAL REQUIREMENTS, CONTACT THE POSTMASTER.

C. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.

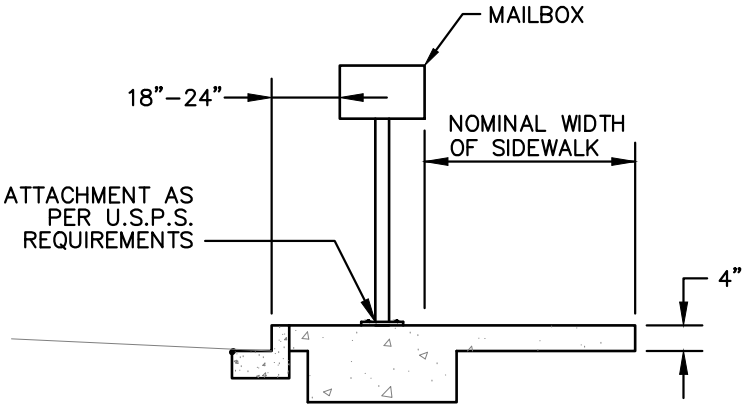
D. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE PUBLIC WORKS DIRECTOR FOR PROTECTION OF VIEWS AND ACCESS.

"Building A Stronger Community TOGETHER"

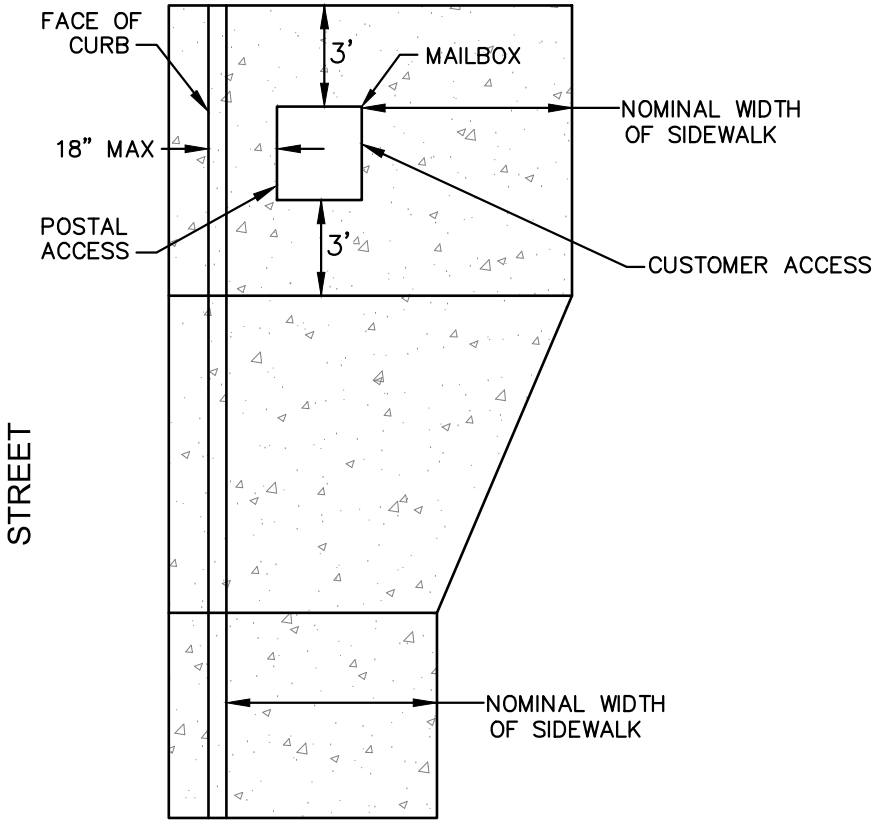
MAILBOX CLUSTER INSIDE/OUTSIDE OF PAVED AREA

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

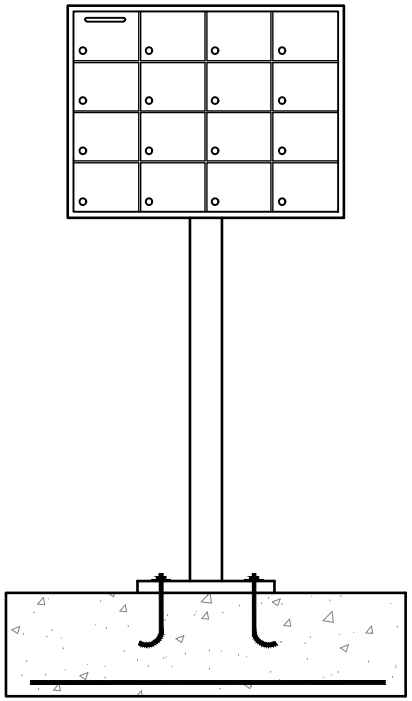
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-05



SIDE VIEW



PLAN VIEW



FRONT VIEW

MAIL BOX NOTES:

1. LOCATION OF PEDESTAL PARCEL LOCKER WILL BE APPROVED BY THE CITY ENGINEER AND THE POSTAL SERVICE.
2. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD FOR NEIGHBORHOOD DELIVERY & COLLECTION BOX UNIT AND PADS. FOR SPECIFIFC POSTAL REQUIREMENTS, CONTACT THE POSTMASTER.
3. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.
4. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER FOR PROTECTION OF VIEWS AND ACCESS.

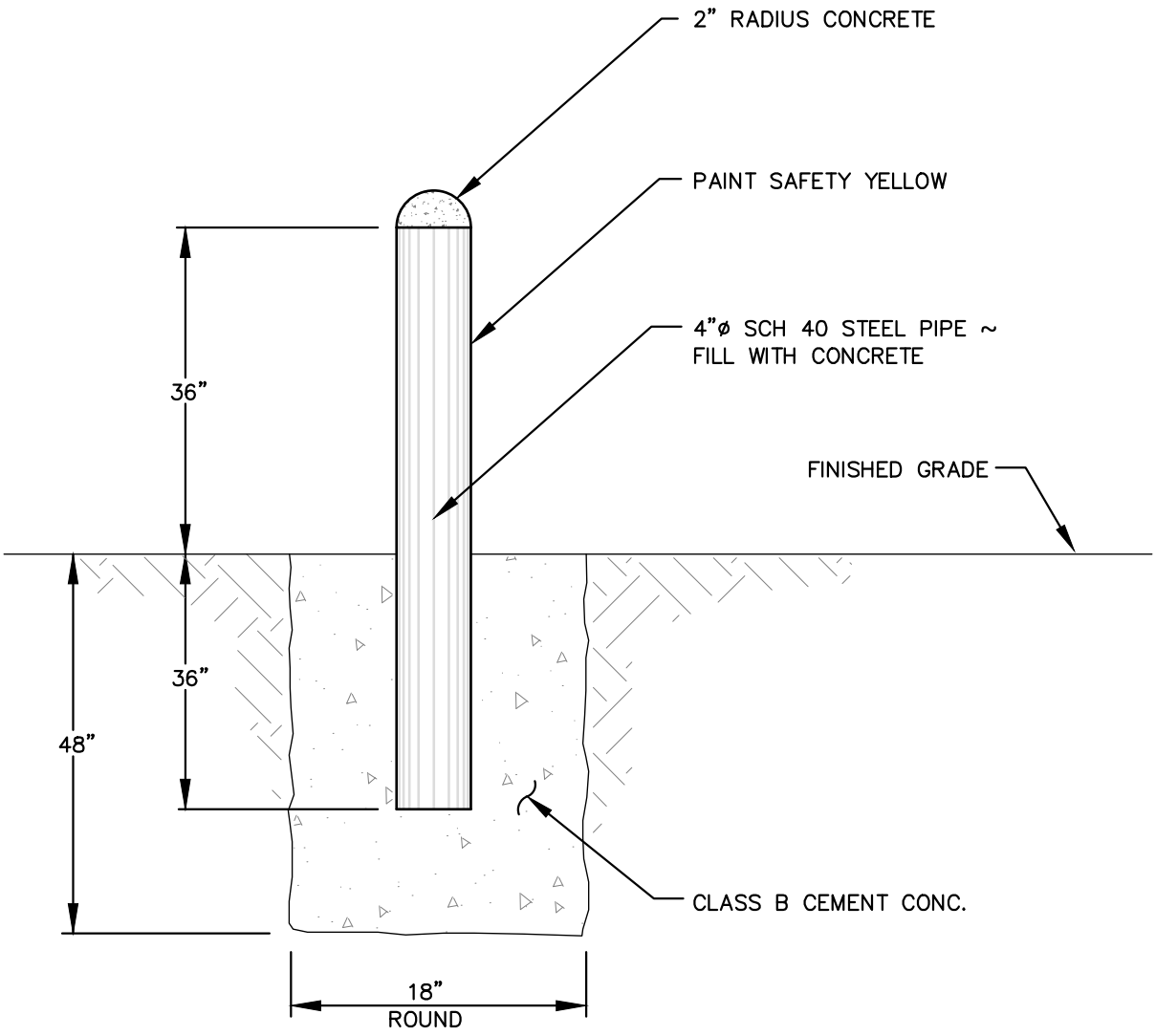
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

MAILBOX SETBACKS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-06

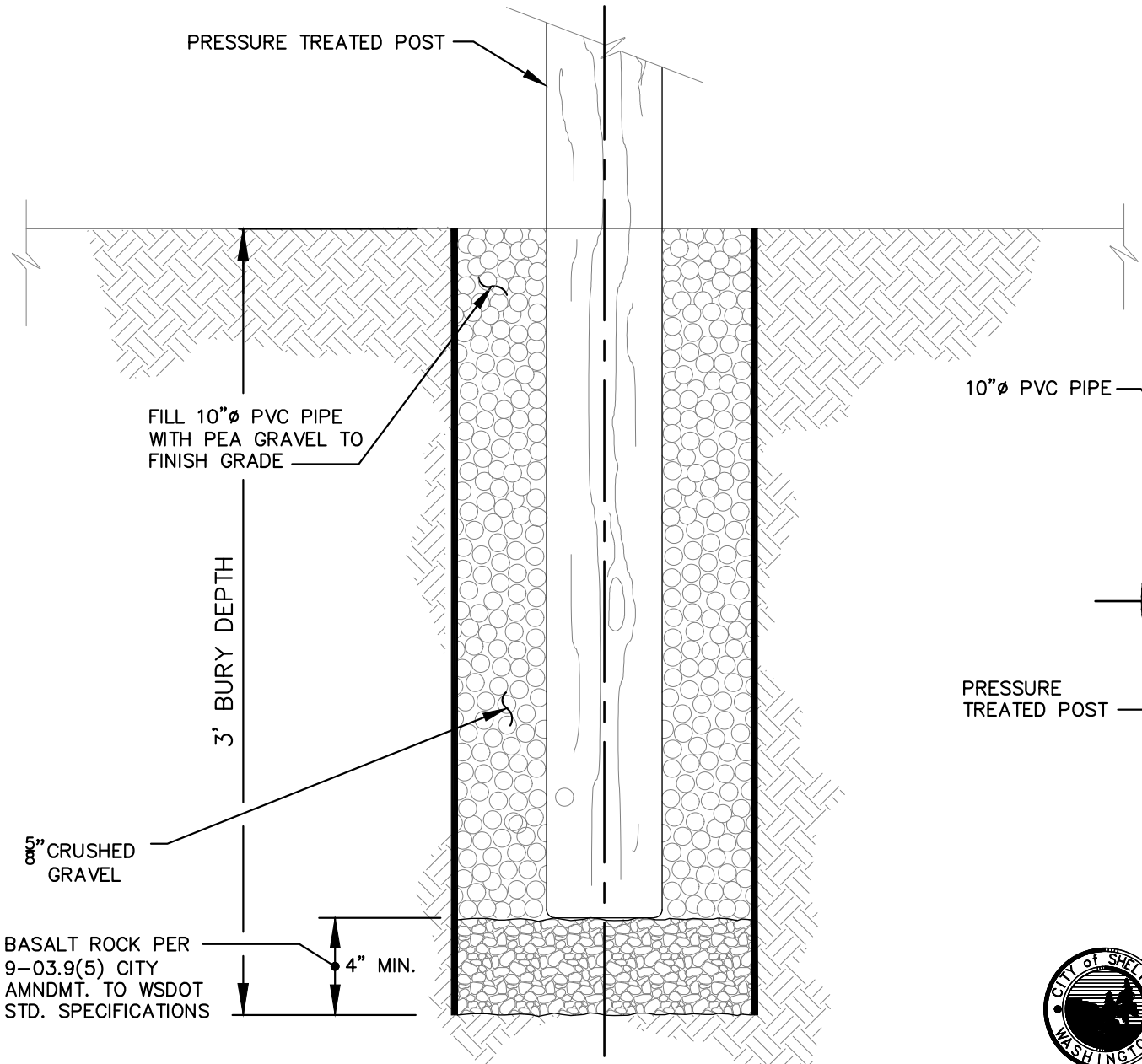


"Building A Stronger Community TOGETHER"

BOLLARD DETAIL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

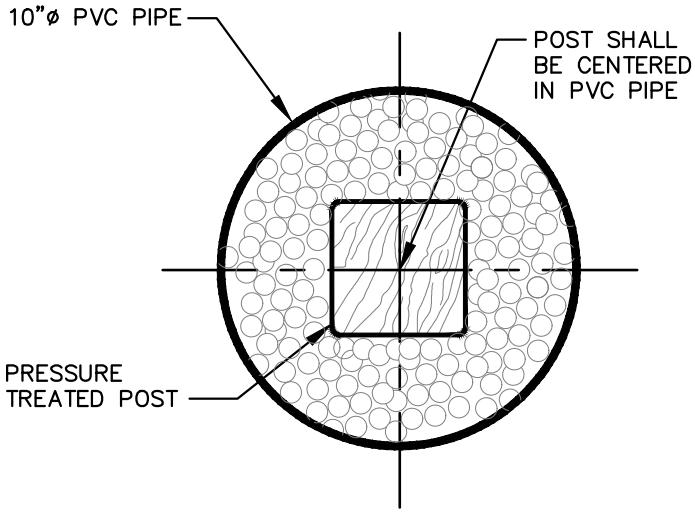
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-07



SECTION VIEW

SCALE: NTS

NOTE: INSTALLATION AND LOCATION OF SIGNS SHALL ADHERE TO CITY & STATE STANDARD SPECIFICATIONS



PLAN VIEW

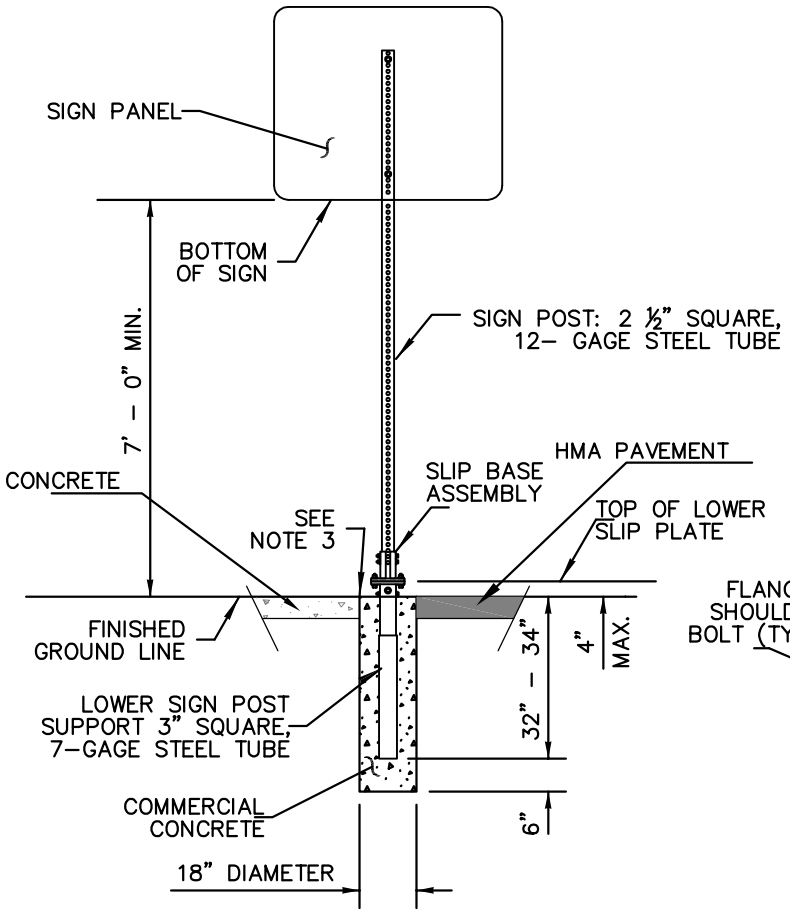
SCALE: NTS

SIGN POST INSTALLATION FOR OUTSIDE PAVED AREA

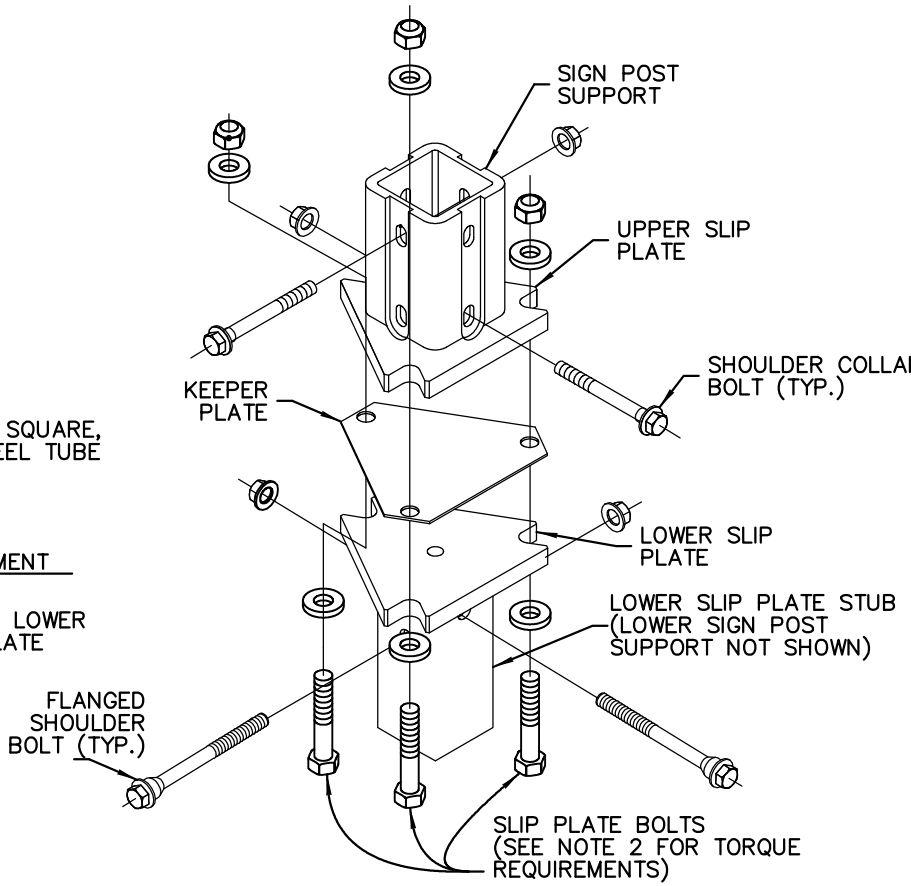
"Building A Stronger Community TOGETHER"

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

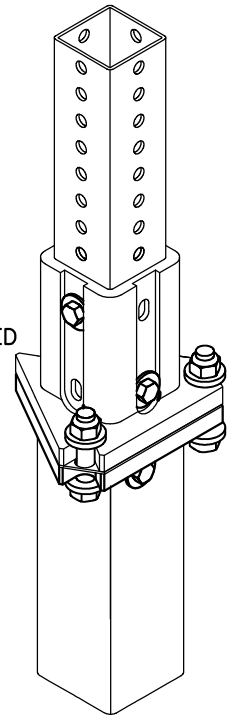
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-08



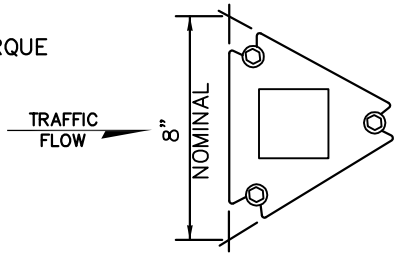
ELEVATION



EXPLODED VIEW
TYPE SB-3 SLIP BASE ASSEMBLY



ISOMETRIC VIEW



SLIP PLATE DETAIL
FOR TYPE SB-3

NOTES:

1. DIMENSIONS FOR THE PARTS USED TO ASSEMBLE THE BASE CONNECTIONS ARE INTENTIONALLY NOT SHOWN. BASE CONNECTIONS ARE PATENTED, MANUFACTURED PRODUCTS THAT ARE IN COMPLIANCE WITH NCHRP 350 CRASH TEST CRITERIA. THE BASE CONNECTION DETAILS ARE ONLY SHOWN TO ILLUSTRATE HOW PARTS ARE ASSEMBLED.
2. DO NOT TIGHTEN ANY SINGLE SLIP PLATE BOLT TO THE RECOMMENDED TORQUE BEFORE PRETIGHTENING THE OTHER BOLTS. PROGRESSIVELY TIGHTEN THE THREE SLIP PLATE BOLTS IN 10 FT-LB INCREMENTS, ALTERNATELY, TO A FINAL TORQUE OF 40 FT-LB ON EACH.
3. TOP OF CONCRETE FOUNDATION SHALL BE SMOOTH, DENSE AND UNIFORM TO FINISHED GROUND LINE.

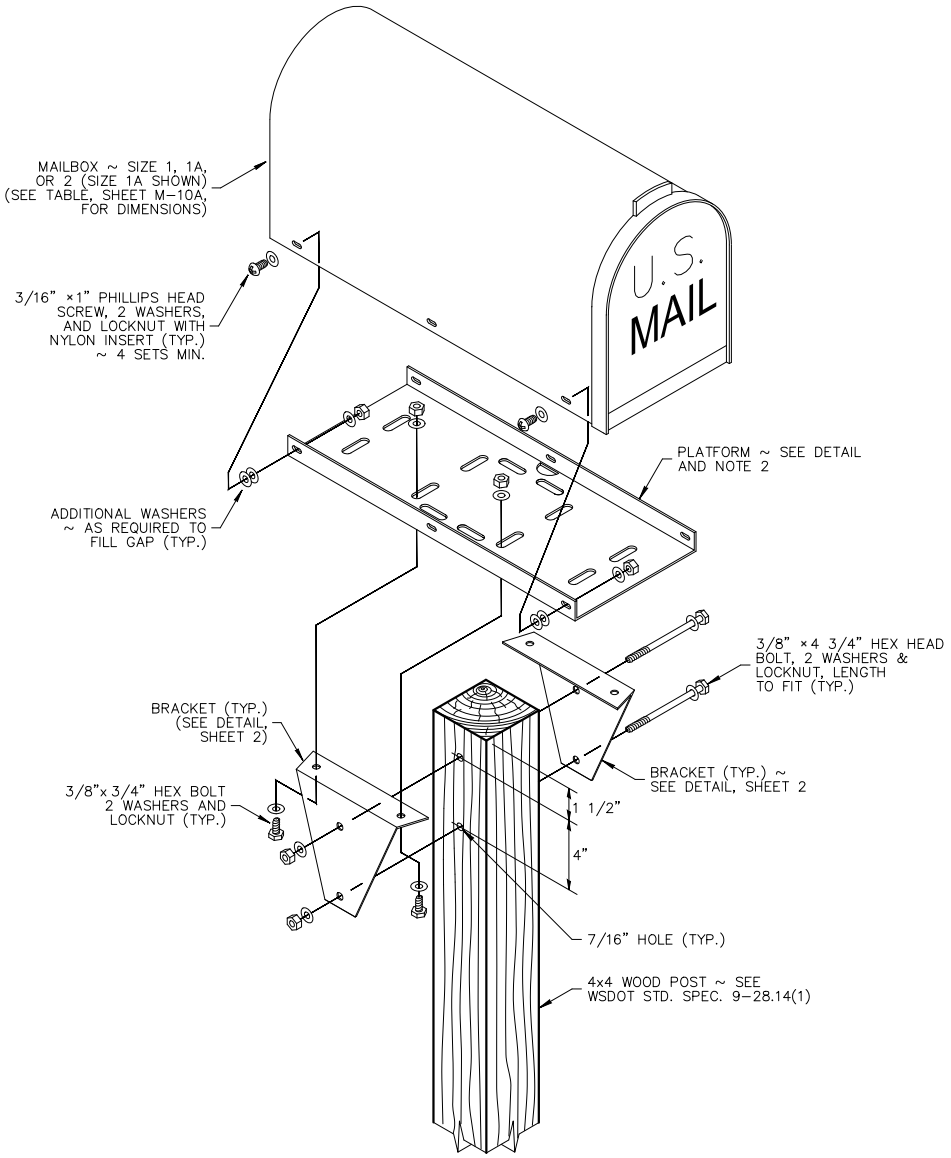
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

SIGN POST INSTALLATION FOR INSIDE PAVED AREA

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-09



WOOD POST ASSEMBLY DETAIL

NOTES

1. A SOCKET AND WEDGE ANCHORING SYSTEM THAT MEETS THE NCHRP 350 CRASH TEST CRITERIA MAY BE SUBSTITUTED IN LIEU OF THE ANTI-TWIST PLATE DESIGNS SHOWN. ANTI-TWIST PLATES ARE NOT REQUIRED FOR WOOD POST INSTALLATIONS.
2. THE PLATFORM DESIGN SHOWN ON THIS PLAN FEATURES SLOTS THAT ACCOMMODATE SEVERAL TYPES OF MAILBOX SUPPORTS; ONLY THOSE SLOTS NECESSARY FOR ASSEMBLING THE TYPE BEING INSTALLED ARE REQUIRED. AN ADJUSTABLE PLATFORM MAY BE USED IN LIEU OF THIS DESIGN, BUT IT MUST FIT THE BRACKET DESIGN SHOWN ON THIS PLAN. BRACKETS ARE REQUIRED FOR ALL SINGLE-POST INSTALLATIONS. FIELD DRILLING MAY BE NECESSARY.
3. CENTER THE MAILBOX ON THE PLATFORM TO ENSURE SPACE FOR THE MAILBOX DOOR TO OPEN AND TO ALLOW SPACE FOR INSTALLING THE FASTENERS (SEE ALIGNMENT DETAIL, SHEET M-10A). SPACING OF MAILBOX MOUNTING HOLES VARIES AMONG MANUFACTURERS. ATTACHMENT OF THE MAILBOX TO THE PLATFORM MAY REQUIRE DRILLING ADDITIONAL HOLES THROUGH THE MAILBOX TO FIT THE PLATFORM.
4. ATTACH A NEWSPAPER BOX TO A STEEL POST WITH TWO 1 7/8" MUFFLER CLAMPS SPACED 4" APART. FIELD DRILL 7/16" HOLES IN THE NEWSPAPER BOX TO FIT. USE 2 1/2" x 1/4" LAG BOLTS TO ATTACH NEWSPAPER BOXES TO WOOD POSTS. NEWSPAPER BOXES MUST NOT EXTEND BEYOND THE FRONT OF THE MAILBOX WHEN THE MAILBOX DOOR IS CLOSED.
5. A TYPE 2 SUPPORT (CITY DRAWING M-10) IS REQUIRED WHEN 2 OR MORE MAILBOXES ARE TO BE INSTALLED ON ONE SUPPORT.

WOOD POST FASTENERS			
SIZE / TYPE	QUANTITY	WASHERS	LOCKNUTS
3/8" DIAM. x 4 3/4" BOLT	2	4	2
3/8" DIAM. x 3/4" BOLT	4	8	4
3/16" DIAM. x 1" SCREW	4	8	4

MAIL BOX NOTES:

A. LOCATION OF PEDESTAL PARCEL LOCKER WILL BE APPROVED BY PUBLIC WORKS DIRECTOR AND THE POSTAL SERVICE.

B. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD FOR NEIGHBORHOOD DELIVERY & COLLECTION BOX UNIT AND PADS. FOR SPECIFIFC POSTAL REQUIREMENTS, CONTACT THE POSTMASTER.

C. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.

D. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER FOR PROTECTION OF VIEWS AND ACCESS.

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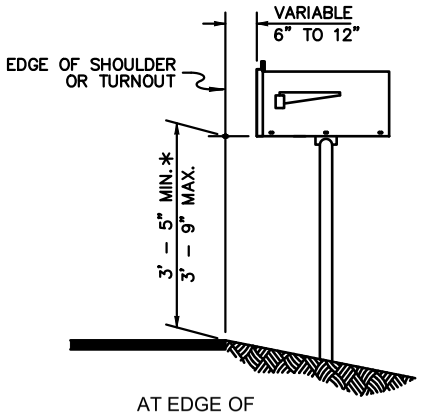
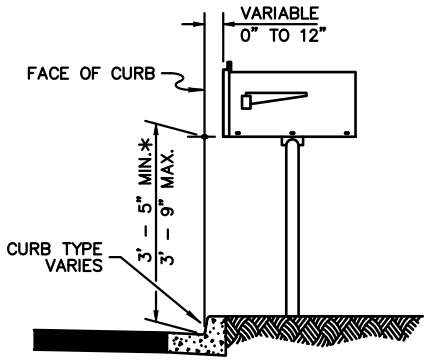
SINGLE MAILBOX INSIDE PAVED AREAS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

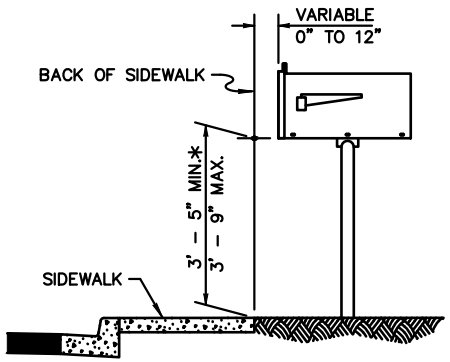
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-10



AT EDGE OF SHOULDER



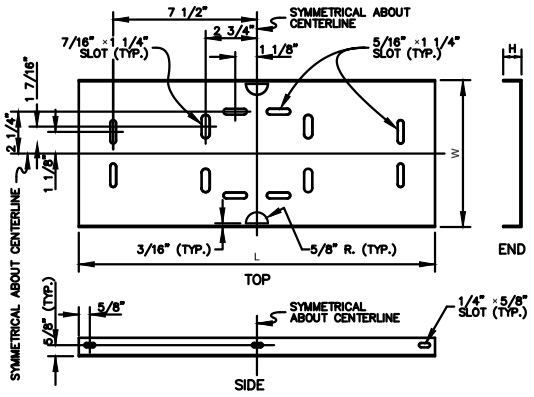
BEHIND CURB



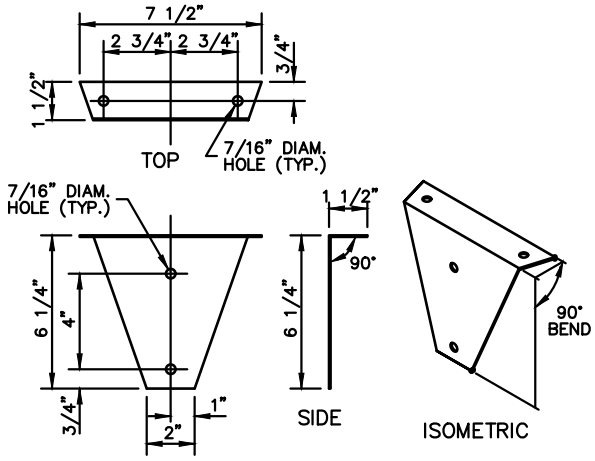
BEHIND SIDEWALK

* UNLESS OTHERWISE SHOWN IN THE PLANS

MAILBOX & PLATFORM DIMENSIONS						
SIZE	MAILBOX DIMENSIONS			PLATFORM DIMENSIONS		
	L	W	H	L	W	H
1	19"	6 1/2"	8 1/2"	17"	6"	1"
1A	21"	8"	10 1/2"	19"	7 1/2"	1"
2	24"	11 1/2"	13 1/2"	21"	11"	1"



PLATFORM DETAIL



BRACKET DETAIL

"Building A Stronger Community TOGETHER"

SINGLE MAILBOX INSIDE PAVED AREAS

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PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	M-10A

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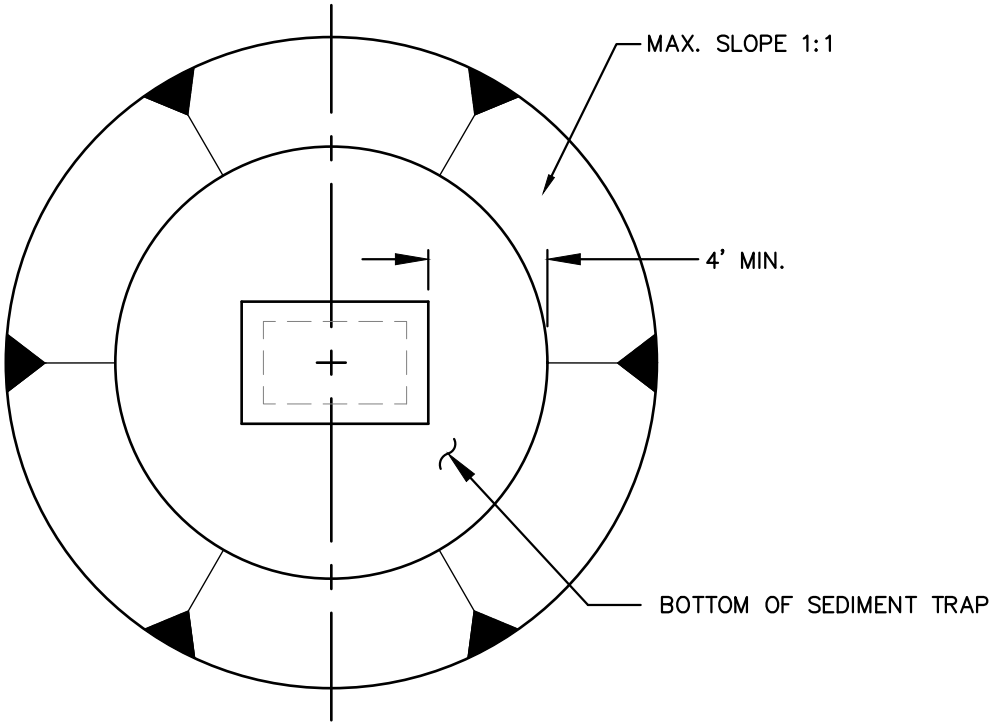
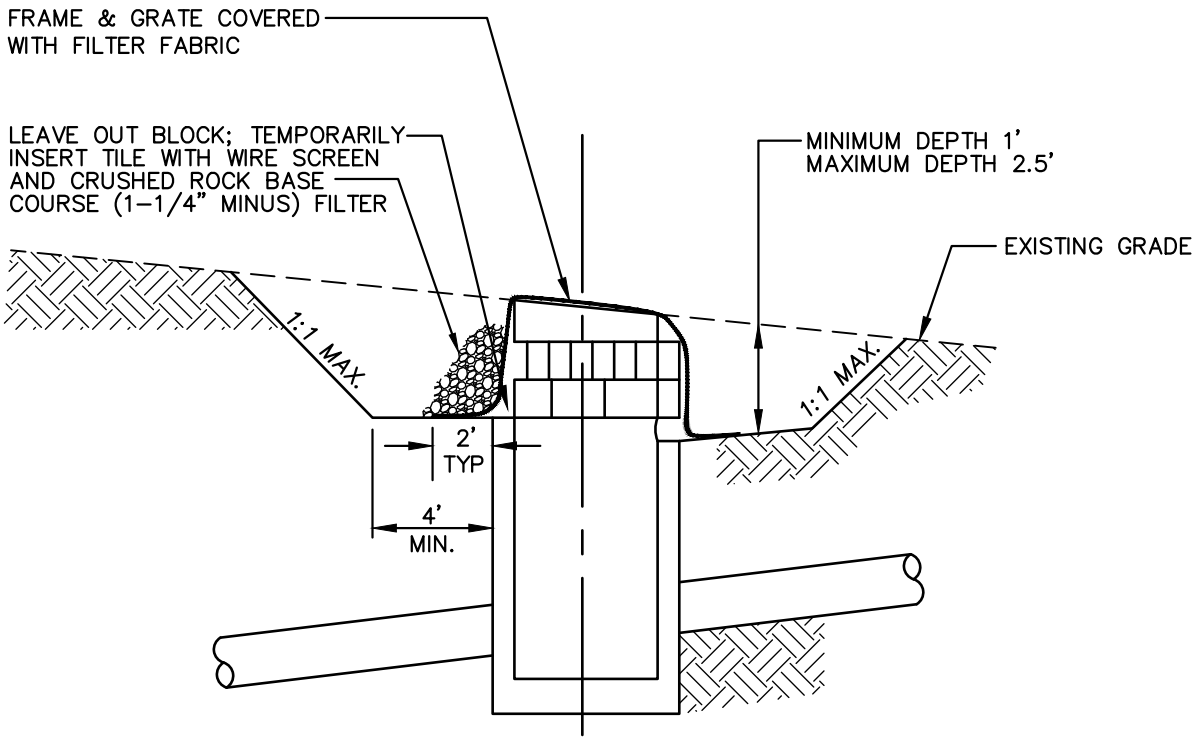
TEMPORARY EROSION & SEDIMENTATION CONTROL



PLAN VIEW



SECTION VIEW

CB/INLET SEDIMENTATION TRAP OUTSIDE PAVED AREA

NOTE:
CLEAN OUT SUMP AND REPLACE FILTER MATERIAL WHEN SEDIMENT IS WITHIN 6" OF THE RIM.

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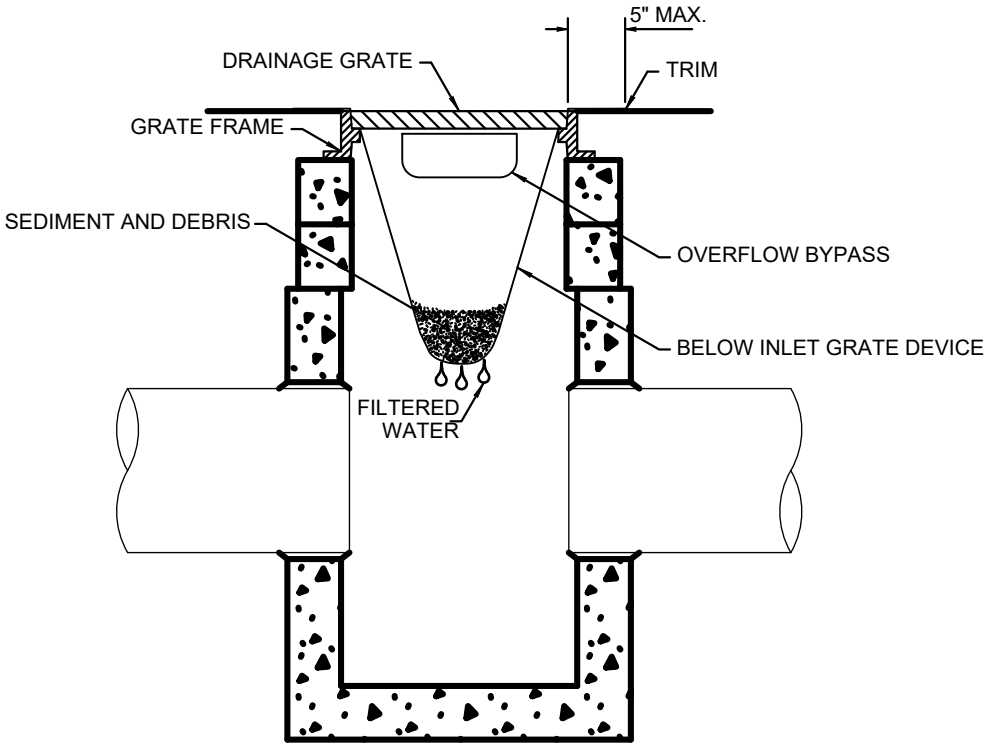
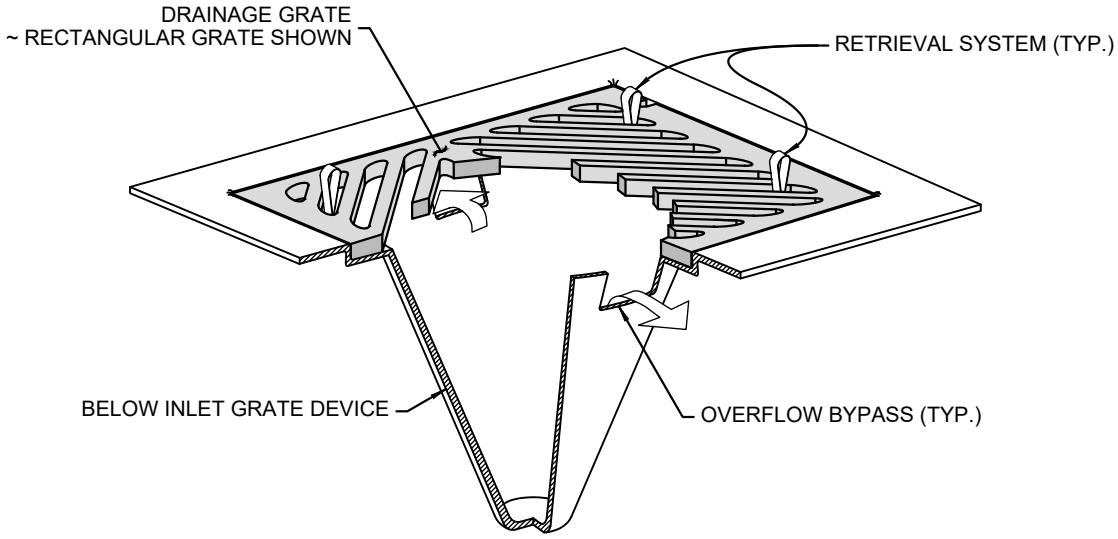
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-01





NOTES:

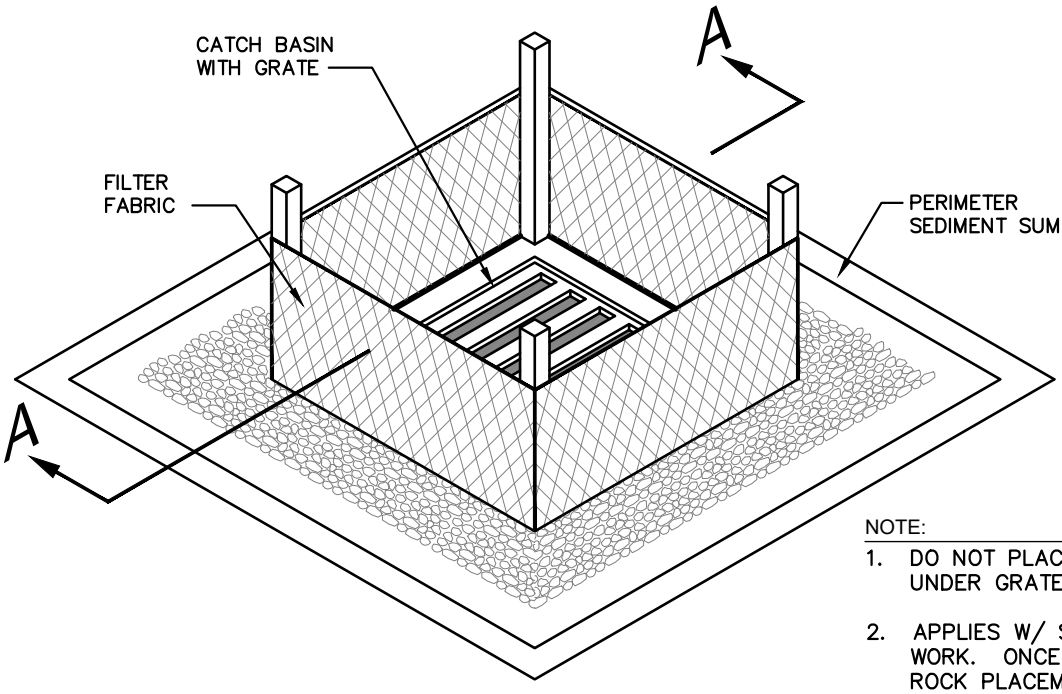
1. SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
2. THE BIGD SHALL HAVE A BUILT–IN HIGH–FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
3. THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL.
4. PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 8–01.3(15).

"Building A Stronger Community TOGETHER"

CB/INLET SEDIMENTATION TRAP INSIDE PAVED AREA

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-01A

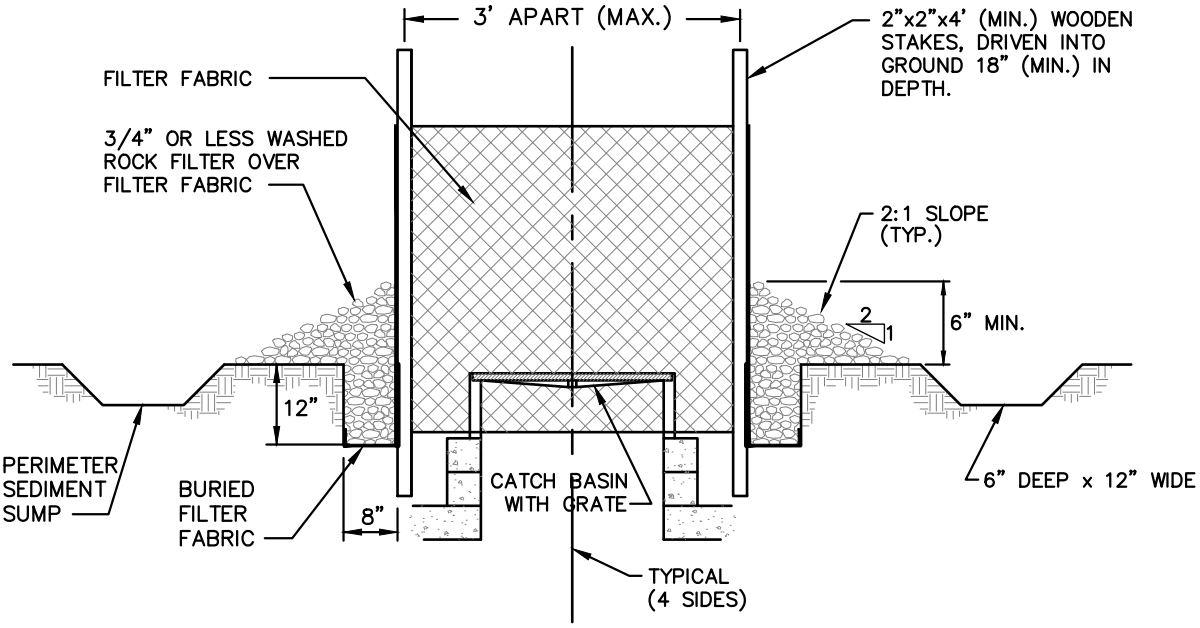


ISOMETRIC PLAN VIEW

NOT TO SCALE

NOTE:

1. DO NOT PLACE FABRIC UNDER GRATE.
2. APPLIES W/ SUBGRADE WORK. ONCE CRUSHED ROCK PLACEMENT PROCEDES FOR FINAL PAVING, WRAP GRATE W/ FABRIC. REMOVE BEFORE COMPLETING CB ADJUSTMENT & MAKING WATERTIGHT.



SECTION A-A

NOT TO SCALE

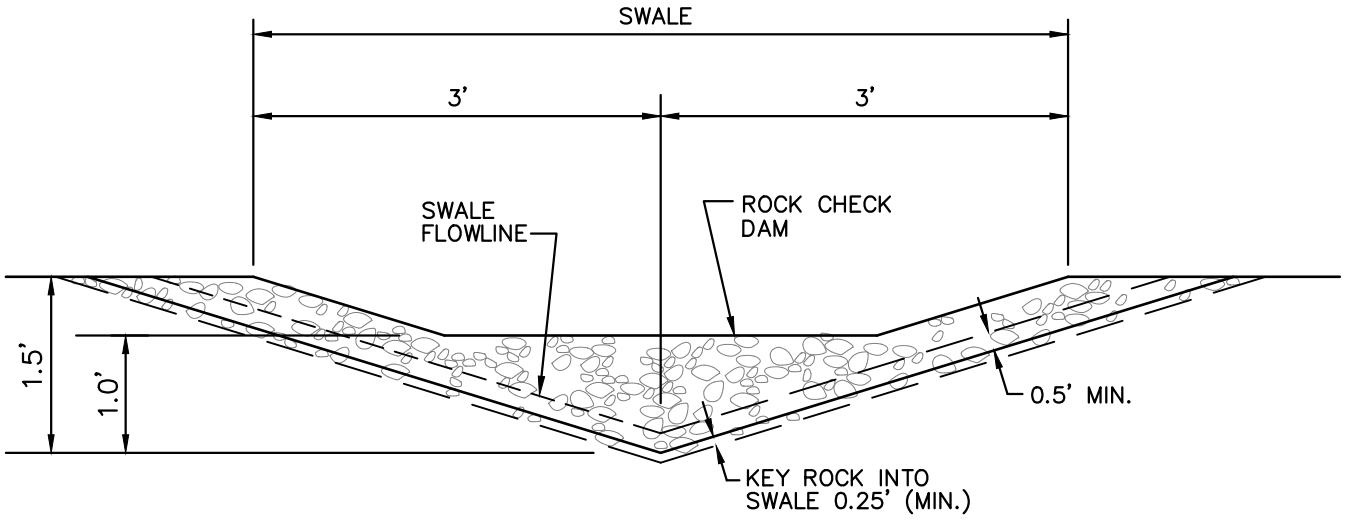
"Building A Stronger Community TOGETHER"

CATCH BASIN SILT FENCE PROTECTION

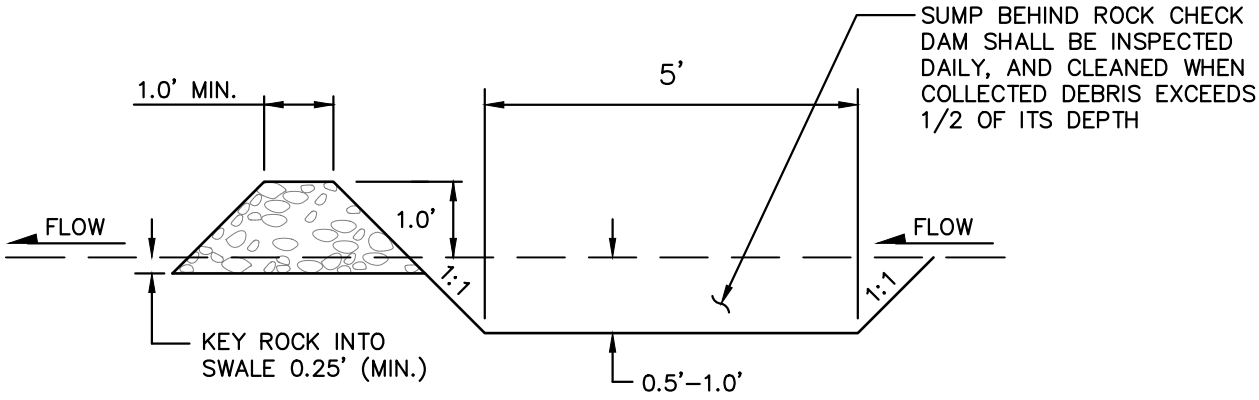
APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-02

SWALE SLOPE	CHECK DAM SPACING
0% – 5%	150'
5% – 10%	100'
> 10%	50'



SWALE CROSS SECTION @ ROCK CHECK DAM



ROCK CHECK DAM CROSS SECTION

NOTE: ROCK SHALL BE 4" MINUS QUARRY ROCK.

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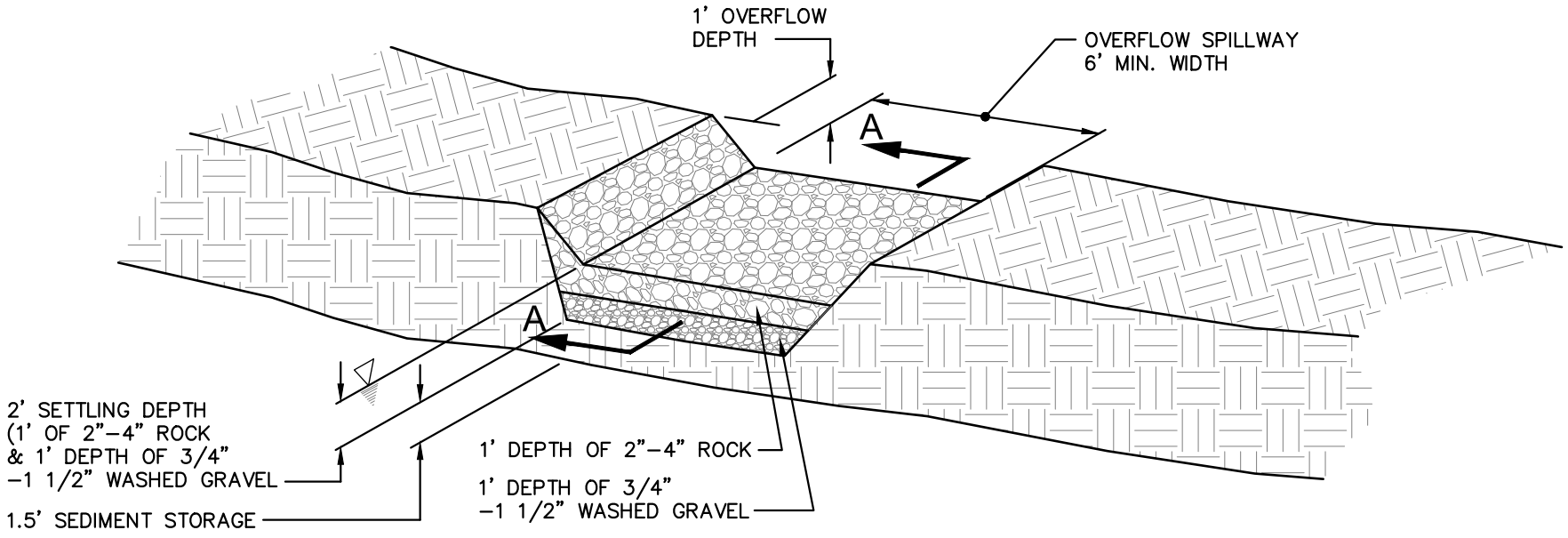
ROCK CHECK DAM DETAILS

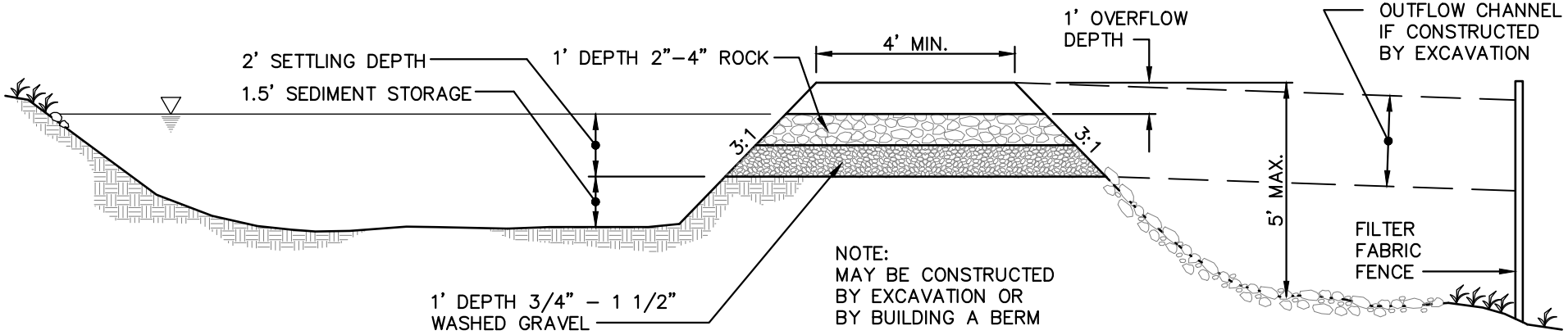
APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-03



ISOMETRIC VIEW

NOT TO SCALE



SECTION A-A

NOT TO SCALE

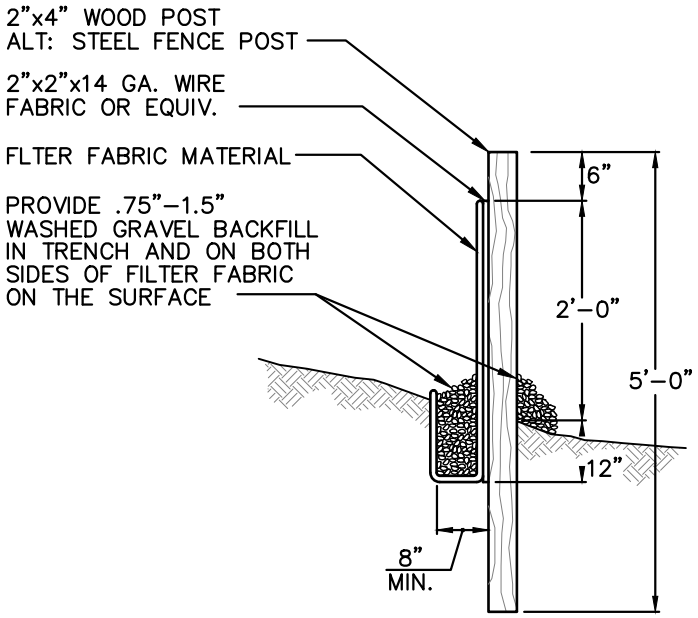
CITY of SHELTON WASHINGTON

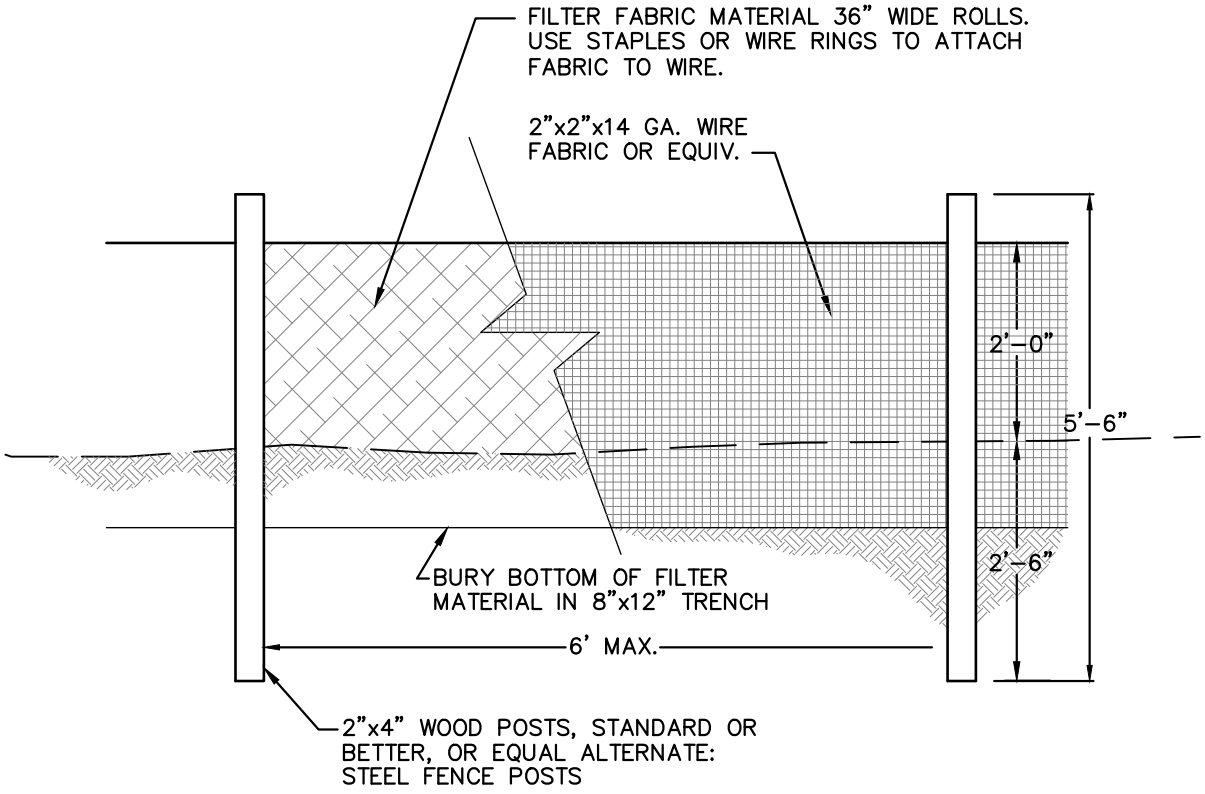
"Building A Stronger Community TOGETHER"

SEDIMENT TRAP OUTLET DETAIL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-04



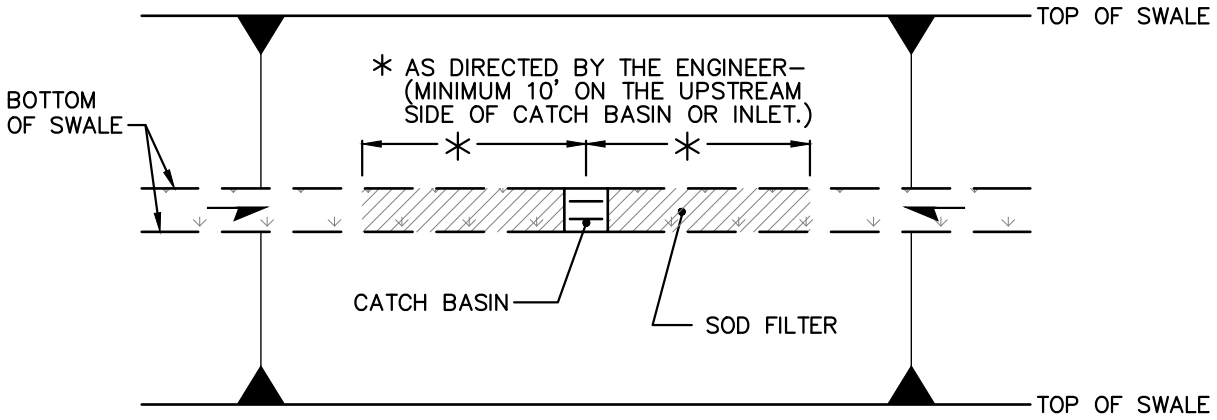


"Building A Stronger Community TOGETHER"

SILT FENCE DETAIL

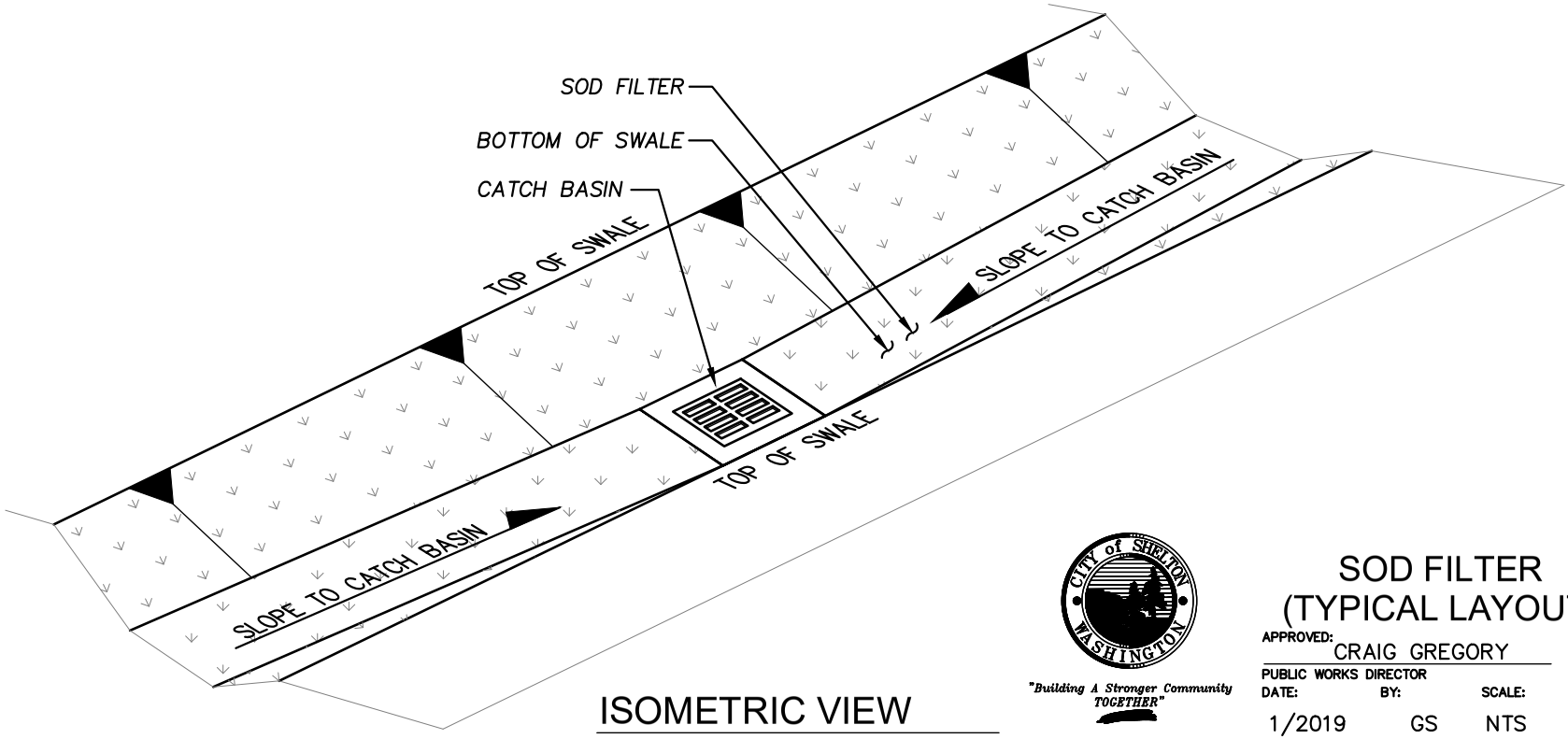
APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-05



PLAN VIEW

NOT TO SCALE



ISOMETRIC VIEW

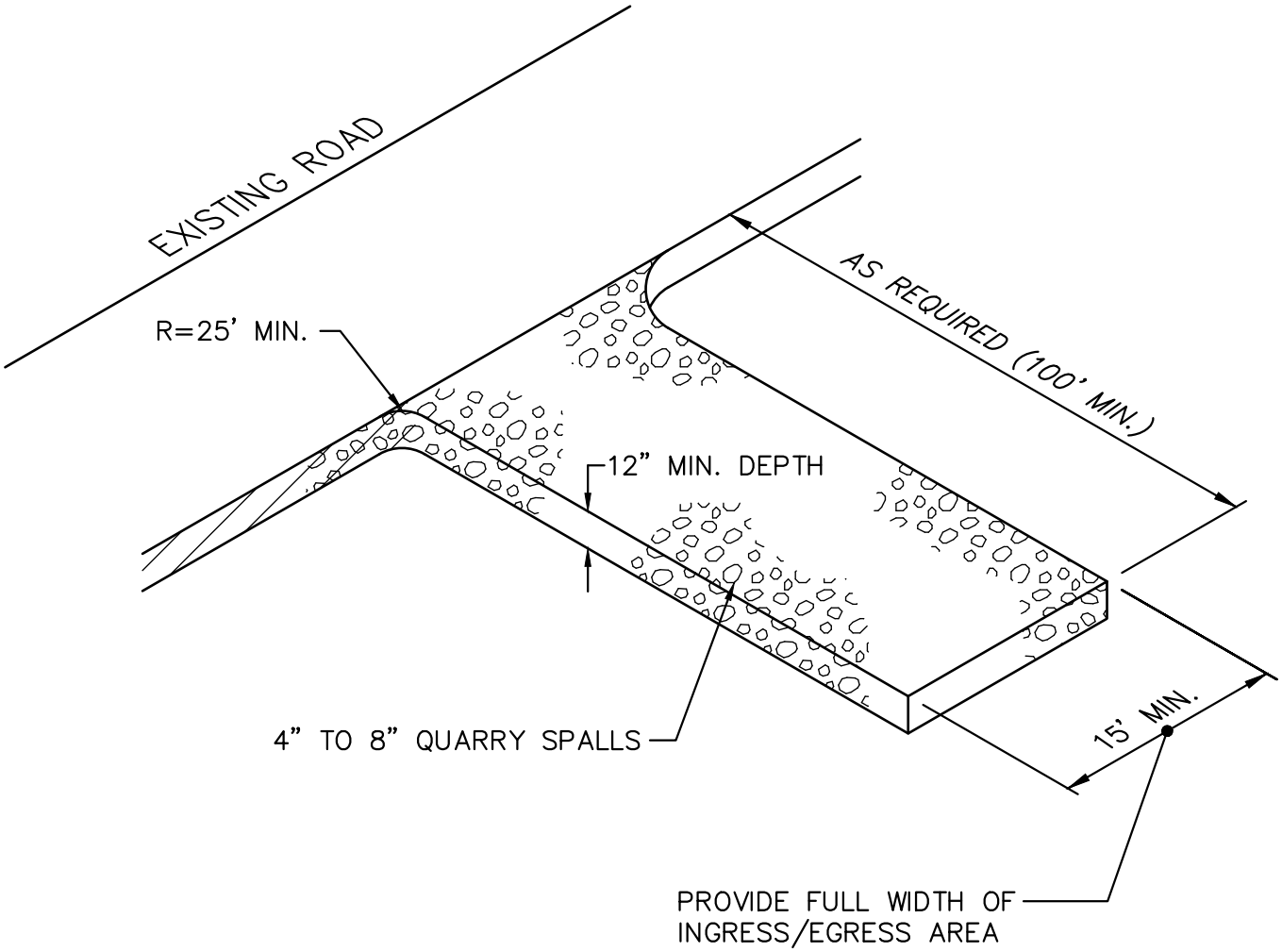
NOT TO SCALE

"Building A Stronger Community TOGETHER"

SOD FILTER (TYPICAL LAYOUT)

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-06

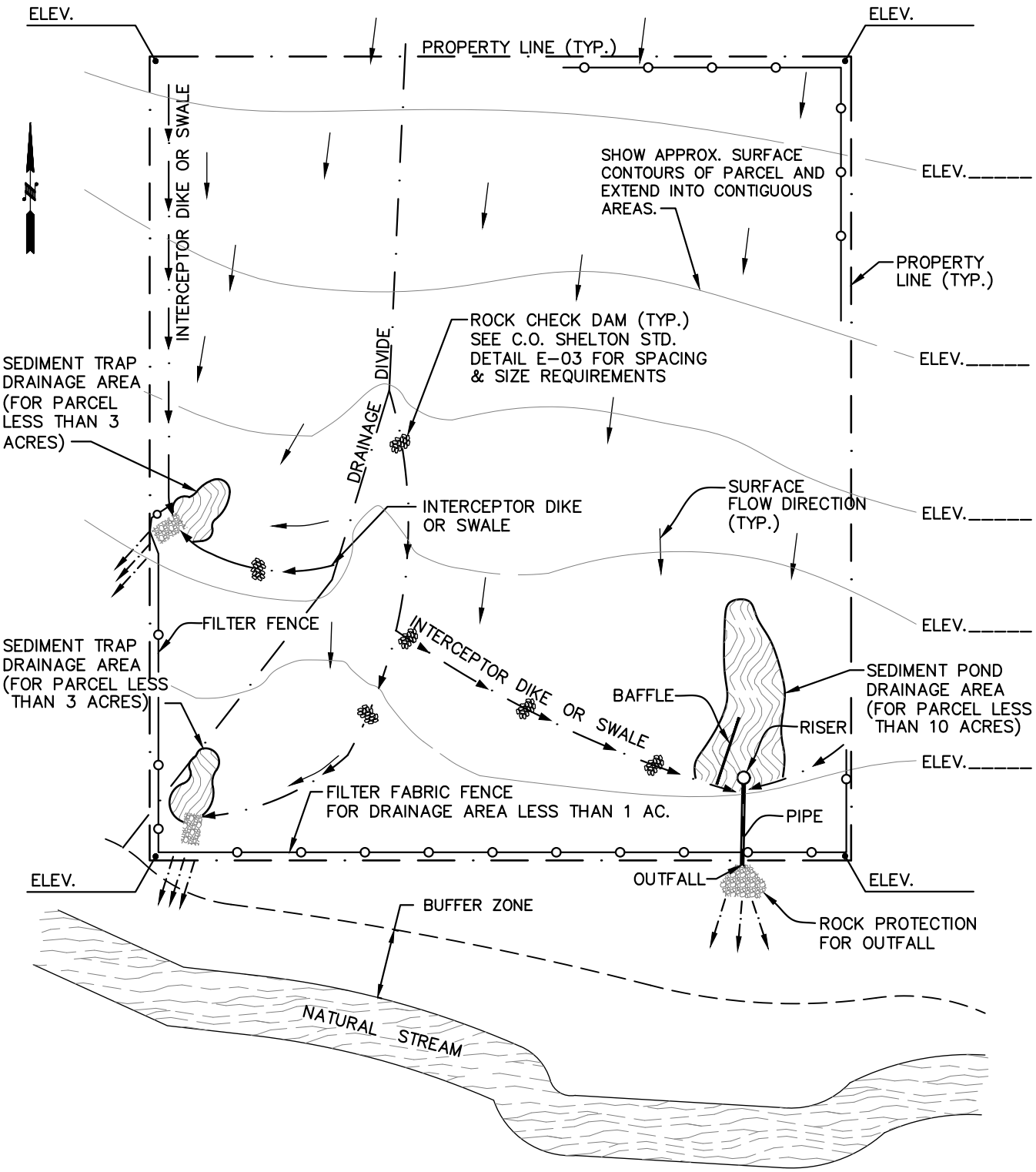


"Building A Stronger Community TOGETHER"

STABILIZED CONSTRUCTION ENTRANCE

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-07



NOTES:

THE FOLLOWING ITEMS MUST BE SHOWN ON SUBMITTAL:

1. ALL INFORMATION SHOWN ABOVE RELEVANT TO THE SUBJECT PROPERTY.
2. A NORTH ARROW.
3. THE ADDRESS AND/ OR PARCEL NUMBER.
4. ALL ABUTTING STREET(S) (IF APPLICABLE).

"Building A Stronger Community TOGETHER"

SMALL PARCEL EROSION CONTROL EXAMPLES

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	E-08

C H A P T E R 2

2.000 TRANSPORTATION

2.010 Transportation System Alterations, Extensions and Connections

To allow the City to provide timely assistance and advice, anyone who wishes to alter, extend or connect to the City's transportation system should contact the City as soon as possible. Any alteration of, extension of, or connection to the City's transportation system must conform to the Comprehensive Plan, SEPA determinations, Final Plat approval, Site Plan approval, Subdivision approval, Final Planned Unit Development approval, Binding Site Plan approval, the WSDOT *Standard Specifications for Road, Bridge and Municipal Construction,* the WSDOT *Design Manual*, the WSDOT Construction Manual, Title 17 of the *Shelton Municipal Code,* and these Standards.

The design of streets and roads shall depend upon type and usage. The width and grade of pavement shall provide for safety and uniformity as required by the standards.

2.020 Functional Classification

City streets are divided into principal arterials, minor arterials, major collectors, minor collectors, and local access streets in response to regional transportation needs and the functional use each serves. See the Comprehensive Plan Transportation Element for a listing of arterials. Function is the controlling element for classification and shall govern right-of-way, road width, and road geometrics. Streets will be classified or reclassified by the City as deemed necessary. See Table 2.050 Minimum Design Standards.

2.030 Roadway Classification Definitions

A. Principal Arterial: Serves regional major activity areas. Carries all inter-urban and significant intra-urban auto and transit trips. Carries the highest traffic and longest trips. Offers most mobility, least land access. Fully or partially controlled access.

B. Minor Arterial: Interconnects and augments principal arterials. Distributes travel to areas smaller than those

associated with major arterials. Places more emphasis on land access than principal arterials.

C. Major Collector: Provides both land access and traffic circulation within residential areas. Provides intra-community continuity but doesn't penetrate identifiable neighborhoods. Carries local bus routes.

D. Minor Collector: Collects traffic from local system and channels it to arterials. Provides both land access and traffic circulation within residential neighborhoods, commercial areas and industrial areas.

E. Local: Provides direct access to abutting land and access to higher classified streets. Offers least mobility. Usually contains no bus routes. Through traffic deliberately discouraged.

2.040 Streets and Alleys

The design of streets and roads shall depend upon type and usage. Street design shall provide for the maximum weight loading conditions as determined by the City. The width and grade of the pavement shall provide for safety and uniformity as required by the Standards.

The layout of streets shall provide for preserving and extending the connectivity of the pedestrian, bicycle and grid street system. The layout shall also ensure that new development that is bordered or surrounded by areas of undeveloped land provides for future street extensions, connections, rights-of-way etc. so that undeveloped areas do not become isolated from the transportation network. Existing streets and alleys and their proper projection shall be considered. Streets that primarily serve to provide access to abutting property shall be designed to discourage regular use by cut-through traffic while maintaining the connectivity of the transportation system. See the table of Minimum Street Design Standards.

A. Alignment: The alignment of alleys, arterials and collectors shall conform as nearly as possible to the Comprehensive Plan.

B. Grade: Street grades should conform closely to the natural contour of the land. In some cases a different grade may be required by the City depending upon the street classification. The minimum allowable profile grade shall

be 0.5 percent. The maximum allowable profile grade shall be as specified on Table 2.050, Minimum Street Design Standards.

C. Width: Street pavement and right-of-way width depend upon the street classification. The table of Minimum Street Design Standards shows the minimum widths allowed. Street widths shall be measured from face-of-curb to face-of-curb on streets with cement concrete curb and gutter or the edge-of-pavement where no curb and gutter exists.

2.050 Minimum Street Design Standards

TABLE 2.050
MINIMUM STREET DESIGN STANDARDS (2)

DESIGN STANDARDS (1)	PRINCIPAL ARTERIAL	MINOR ARTERIAL	MAJOR COLLECTOR	MINOR COLLECTOR (2)	LOCAL RESIDENTIAL (2)	LOCAL COMMERCIAL	PRIVATE STREET	ALLEY
DESIGN LIMITATIONS	Access should be limited. No on-street parking allowed.	Access should be limited. NO on-street parking allowed.	Access should be limited. On-street parking allowed.	Access should be limited. On-street parking allowed.	On-street parking allowed	On-street parking allowed.		No parking allowed. Loading and unloading allowed.
MINIMUM STRUCTURAL DESIGN	See Development Section 2.190							
MINIMUM RIGHT-OF-WAY	92'-96' See Standard Drawing #T-25, T-26. See Note 1.	69'-73' See Standard Drawing #T-25, T-26. See Note 1.	61'-84'. See Standard Drawing # T-22, T-23, T-24. See Note 1.	61'-84'. See Standard Drawing # T-22, T-23, T-24. See Note 1.	60'-76'. See Standard Drawing # T-20, T-21. See Note 1.	61'-65' 75'-84' See Standard Drawing # T-22, T-23, T-24. See Note 1		20' See Note 1
MINIMUM PAVEMENT WIDTH	48-64 feet, with four travel lanes, median, turning pockets and 5' bike lanes on both sides.	48-60 feet, with 4 travel lanes, one 2-1ay turning lane and 5' bike lanes on both sides.	44-48 feet with 4 travel lanes and 5' bike lanes on both sides.	24 feet, with 5' bike lanes on both sides.	24 feet without on-street parking; 40 feet with on-street parking.	40 feet, includes on-street parking.	Fire Departme nt standards	20'
PARKING LANE	None allowed	None allowed	Allowed; 8 foot minimum	Allowed; 8 foot minimum	Allowed; 8 foot minimum	Allow; 8 foot minimum		

DESIGN STANDARDS (1)	PRINCIPAL ARTERIAL	MINOR ARTERIAL	MAJOR COLLECTOR	MINOR COLLECTOR (2)	LOCAL RESIDENTIAL (2)	LOCAL COMMERCIAL	PRIVATE STREET	ALLEY
MINIMUM/ MAXIMUM GRADE	0.5%-8.0%	0.5%-8.0%	0.5%-8.0%	0.5%-8.0%	0.5%-10.0%	0.5%-10.0%	0.5%-10.0%	0.5%-10.0%
CURB	Cement concrete curb and gutter	Cement concrete curb and gutter	Cement concrete curb and gutter	Cement concrete curb and gutter	Cement concrete curb and gutter	Cement concrete curb and gutter		N/A
SIDEWALKS	Both sides, minimum 8' width, 10' with zero lot setback	Both sides, minimum 8' width	Both sides, minimum 8' width	Both sides, minimum 6' width	Both sides, minimum 6' in residential zone, 8' in commercial zone	Both sides, minimum 8' in commercial zone, 10; with zero lot line		N/A
CUL-DE-SAC RADIUS (PAVEMENT WIDTH)	N/A	N/A	N/A	N/A	Fire Dept Standards, minimum 55' radius	Fire Dept Standards, minimum 55' radius	Fire Dept standards	N/A
INTERSECTION CURB RADIUS	35 feet, 55 feet on Freight Mobility routes	35 feet, 55 feet on Freight Mobility routes	35 feet, 55 feet on Freight Mobility routes	35 feet, 55 feet on Freight Mobility routes	Not less than 30 feet at edge of travel lane, 25 feet minimum	Not less than 30 feet at edge of travel lane, 25 feet minimum		N/A
DESIGN SPEED (MPH)	With super elevation per AASHTO, Without super elevation 600', maximum super elevation = 6%	With super elevation per AASHTO, Without super elevation 600', maximum super elevation = 6%	150'	150'	100'	100'		N/A

(1) Additional right of way may be required to accommodate street tree corridor and bus turnout.
(2) An exception to these standards for in-fill development within the Neighborhood Residential (NR) Zoning District provided in 2.100.A.

2.060 Traffic Impact Analysis

A Traffic Impact Analysis (TIA) is a specialized study of the impacts a certain type and size of development will have on the surrounding transportation system. The traffic impact analysis is an integral part of the environmental review process and is specifically concerned with the generation, distribution, and assignment of traffic to and from the proposed development.

The purpose of a TIA is to determine what impact development traffic will have on the existing and proposed street network and what impact the existing and projected traffic on the street system will have on the "new development". (Refer to definition of "development" in Chapter One).

This section has been prepared to establish the requirements for a Traffic Impact Analysis. The Community and Economic Development Director is responsible under SEPA and City Ordinances for determining the need for a Traffic Impact Analysis. The Public Works Director will approve the scope of work, review the Traffic Impact Analysis and make recommendations to the SPRC and/or the ERC.

All reports shall be submitted in a professional format that can be interpreted by all departments. Exhibits shall include a border with a title block identifying the project and a description with legible text clearly identifying all items. Exhibits shall be constructed with approved graphical software.

To adequately assess traffic impacts on the transportation system, the Community and Economic Development Director or designee may require a Traffic Generation Worksheet be prepared to determine if a Traffic Impact Analysis (TIA) or traffic mitigation is required.

A full or partial TIA may be required if any of the following conditions are met:

1. The development will generate more than 10 PM peak hour trips.

2. The development will generate more than 100 peak hour trips at a time other than PM peak.

3. The Public Works Department is unable to determine the traffic generation characteristics of the development.

4. The developer feels further traffic analysis may clarify questions about the identified traffic mitigation assessment for the project.

5. The development access to the roadway network may create an impact as determined by the Public Works Department.

6. The development impacts an area identified by the Public Works Department that does not meet the concurrency requirements of the Growth Management Act.

7. The development may potentially affect the implementation of the street system outlined in the Transportation Element of the Comprehensive Plan or any other documented transportation project.

8. If modifications are required to the original TIA that is more than two years old, or where the increase in traffic volume as measured by ADT, peak hour, or peak hour of critical movement is more than 10 percent.

9. The development may have an impact to the roadway or transportation system as determined by the Public Works Department.

10. The City has required that an Environmental Assessment or Environmental Impact Statement be prepared.

If the Public Works Director requires a TIA, the general guidelines for content and structure shall follow the following format.

A. Qualifications for preparing TIA Documents

The Traffic Scoping and/or the TIA shall be prepared and stamped by an engineer licensed to practice in the State of Washington with special training and experience in traffic engineering and who preferably is a member of the Institute of Transportation Engineers (ITE). The developer shall provide the

Public Works Department the credentials of the individual(s) selected to perform the report(s).

B. Scoping Report

If a Traffic Impact Analysis is required, the engineer shall submit 5 copies of a Scoping Report to the City. The Scoping Report will be used by the City to develop the scope of work for the TIA. The Scoping Report shall include all items in the following checklist:

- ☐ Traffic Scoping Information Worksheet (see following pages)
- ☐ Project Size in Square Feet and Acres
- ☐ General Location
- ☐ Proposed Use
- ☐ Phasing Plan
- ☐ Number of Lots or Units
- ☐ Trip Generation
- ☐ Daily Trips
- ☐ PM Peak Hour
- ☐ Year of Occupancy (Horizon year of project)
- ☐ Land Use Code
- ☐ Ambient Growth (to be determined by Public Works Director)
- ☐ Approved Development Projects in the Vicinity
- ☐ Intersections Impacted by 20 or more PM Peak Hour Trips
- ☐ A reduced copy of the "Site Plan" showing the type of development, street system, right-of-way limits, proposed access points, and other features of significance in the development. The "Site Plan" shall also include pertinent "off-site" information such as dimensioning to all existing intersections and driveways with the existing channelization, land use descriptions, street right-of-way limits with respect to the existing roadway and other features of significance. Exhibit "B" illustrates an example site plan for reference purposes.
- ☐ A graphical distribution map showing site generated PM peak hour traffic. Generally, traffic shall be distributed to one PM peak trip within the Transportation Plan Area. This map shall clearly identify all traffic movements and the percentage of site traffic. Include a copy of an approved link-node map or identify the Traffic Analysis Zone (TAZ) of the generic distribution used. Exhibits "E" and "F" illustrate examples of distribution maps. Exhibit "G" illustrates an example of the link-node map.
- ☐ Name, address and phone number of project developer and traffic consultant.
- ☐ If streets or intersections affected are in the neighboring jurisdiction of Mason County, or the Washington State Department of Transportation, identify issues that may impact those jurisdictions.

Traffic Scoping Information Worksheet
(Include Site Plan)
Project Information

Project Title: _____
Project Description: _____
Parcel Number(s): _____
Trip Generation: _____

Quantity	Units	Land Use Code and Description	Daily Generation Rate	AM Generation Rate	PM Generation Rate	Proposed Pass-by Rate

Total PM Peak Hour Trips: _____

New PM Peak Hour Trips: _____

Total AM Peak Hour Trips: _____

Total Daily Trips: _____

Year of Occupancy (Horizon Year of Project): _____

Phasing Plan:_____

_____

Identify all intersections that are affected by more than 20 new PM Peak Hour Trips: Use additional sheets if necessary.

1. _____	6. _____
2. _____	7. _____
3. _____	8. _____
4. _____	9. _____
5. _____	10. _____

Include: Name, address, phone number and fax number of project developer and traffic consultant. Include site plan showing all existing roadways and driveways.

C. Traffic Impact Analysis

The level of detail and scope of work of a TIA may vary with the size, complexity, and location of the development. A TIA shall be a thorough review of the immediate and long-range effects of the development on the transportation system

1. Prospectus

    a. Provide a "Vicinity Map" of the project area showing the transportation system to be impacted by the development.

    b. Provide a reduced copy of the Site Plan showing the type of development, street system, right-of-way limits, proposed access points, and other features of significance in the development. The Site Plan shall also include pertinent off-site information such as dimensioning to all existing intersections and driveways with the existing channelization, land use descriptions, and street right-of-way limits with respect to the existing roadway and other features of significance.

    c. Discuss specific development characteristics such as type of development proposed (single-family, multi-family, retail, industrial), internal street network, proposed access locations, parking requirements, zoning, and other pertinent factors attributable to the development.

    d. Discuss project completion, phasing plan and occupancy schedule for the development. Identify horizon years for traffic analysis purposes.

2. Existing Conditions

    a. Discuss street characteristics including functional classification, number of traveled lanes, lane width, shoulder treatment, posted speed limit, bicycle path corridors, transit routes, transit accessibility and traffic control at study intersections. An Exhibit may be used to illustrate existing transportation facilities.

    b. Identify approved nearby land development (planned or under construction) and associated traffic.

c. Identify safety and access issues including discussions on crash potential, sight distance restrictions, traffic control and pedestrian conflicts.

d. Obtain all available traffic data from the City of Shelton and surrounding jurisdictions if applicable. If data is unavailable, the individual or firm preparing the TIA shall collect the necessary data to support the discussions and analysis in the TIA.

e. Conduct manual peak hour turning movement counts at study intersections if traffic volume data is more than 2 years old unless otherwise directed by the Public Works Department. A copy of the summarized data shall be attached to the TIA when submitted.

f. An Exhibit shall be prepared showing existing average daily traffic (ADT) and peak hour traffic volumes on the adjacent streets and intersections in the study area. This Exhibit shall represent the "base-line" traffic volumes for analysis purposes. Complete turning movement volumes shall be illustrated.

3. Development Traffic

This element of the TIA shall be conducted to identify the limits of the study area. The study area shall include all site access drives, pertinent intersections and streets impacted by development traffic. The limits of the study area shall be representative of the specific conditions outlined in the Scoping process. The threshold requirement of development traffic is ten vehicles in the peak hour on the adjacent streets and intersections. Each intersection and street impacted as described shall be included in the Plan Area for mitigation or analysis purposes.

4. Trip Generation

The methodology and procedures used in preparing the trip generation of the development are as follows:

Site-generated traffic from the development shall be estimated using the latest edition of the ITE *Trip Generation Manual*. **Average trip rates shall be used for**

all land-use categories where applicable. Trip rate equations will only be allowed for those land-uses without average rates. Table formats for trip generation shall not be interpolated. Generally, the consultant shall use individual rates for mixed-use developments.

Variations from the trip rates will be considered in the scoping process. The consultant shall submit a letter explaining the reason for the variation and all supporting documentation. Trip generation studies shall follow standard ITE guidelines and shall be statistically valid for approval by the Public Works Director.

Site traffic shall be estimated for daily, AM peak hour and PM peak hour periods as directed by the City. A "pass-by" traffic volume discount for applicable commercial development shall be calculated based on the *Trip Generation Handbook*, most current edition, published by the Institute of Transportation Engineers (ITE). If a comparable use is not identified in the ITE *Trip Generation Handbook*, an independent study of a minimum three comparable uses shall be used. The comparable sites must be approved by the City. Land uses not identified in the ITE *Trip Generation Handbook* will typically have a "pass-by" rate between 0% and 25% maximum and shall be consistent with similar land uses approved by the City. If a minimum three comparable uses cannot be identified, the developer may use rates previously approved by the City for similar uses if available. "Pass-by" discounts will not be permitted for residential or office developments.

For multi-use and/or phased projects, a trip generation table shall be prepared showing proposed land-use, trip rates, and vehicle trips for daily and peak hour periods and appropriate traffic volume discounts if applicable.

5. Trip Distribution

Projects that generate more than 250 PM peak hour trips may be required to generate a project specific distribution.

The Public Works Director shall approve the trip distribution for a development during the formal scoping process.

A graphical distribution map shall be submitted showing site generated PM peak hour traffic. Generally, traffic shall

be distributed to one PM peak trip within the Transportation Plan Area if a generic distribution is not used (20 trips if a generic distribution is used). This map shall clearly identify all traffic movements and the percentage of site traffic. Include a copy of the link-node map or identify the Traffic Analysis Zone (TAZ) if the generic distribution is used.

6. Future Traffic Conditions

   Future traffic volumes shall be estimated by including an annual growth rate to the existing (base-line) traffic volumes and shall include all traffic generated by anticipated nearby land development (projects with an approved traffic scope) when forecasting future traffic volumes. The future traffic volumes shall be representative of the year the project development is scheduled to be completed (horizon year). The Public Works Director will determine an appropriate growth rate.

   The site-generated traffic shall be assigned to the street network in the study area based on the approved trip distribution. The site traffic shall be combined with the forecasted traffic volumes to show the total traffic conditions estimated at development completion. An exhibit will be required showing daily and peak period turning movement volumes for each traffic study intersection.

7. Traffic Operations

   The Level of Service (LOS) and capacity analysis shall be conducted for each pertinent intersection in the study area as determined by the Public Works Department. The methodology and procedures for conducting the capacity analysis shall follow the guidelines specified in the current version of the *Highway Capacity Manual - Special Report 209*. The individual or firm preparing the TIA shall calculate the intersection LOS for each of the following conditions:

   a. Existing PM peak hour traffic volumes (Exhibit required).

   b. Future PM peak hour traffic volumes not including site traffic (Exhibit required).

c. Future PM peak hour traffic volumes including site traffic (Exhibit required).

d. Level of Service results for each traffic volume scenario (Table required).

The Level of Service table shall include LOS results for the key peak periods if applicable. The table shall show LOS conditions with corresponding vehicle delays for signalized intersections and un-signalized intersections. The LOS conditions and average vehicle delay shall be provided for each approach and the intersection as a whole.

If the development will be completed in phases, the TIA shall conduct a LOS analysis for each separate development phase. The incremental increases in site traffic from each phase shall be included in the LOS analysis for each succeeding year of development completion. An Exhibit will be required for each horizon year of phased development.

The capacity analysis shall be conducted using computer software compatible with the Public Works Department's software package. The individual or firm preparing the TIA shall use SIGNAL 2000 or an approved equivalent for capacity analysis of signalized intersections. SIDRA5 or latest version shall be used for analysis of modern roundabouts. Other computer software packages used for capacity analysis applications will not be accepted unless approved beforehand by the City.

If the development impacts a traffic signal coordination system, the Public Works Department may require the TIA to include operational analysis of the system. Timing plans and proposed modifications to the coordination system may be required. The latest version of Passer II, Transyt-7F, or Synchro shall be used depending on the signal system. The Public Works Director will determine the appropriate software on a case-by-case basis.

The capacity analyses for each intersection shall be analyzed using the existing timing and phasing for both existing and future volumes. If the intersection runs free during the analysis period, phasing shall remain the same and existing minimums shall not be violated. All traffic signal system operational data will be made available by

the Public Works Department and adjacent jurisdictions if applicable.

Generally, default values identified in the *Highway Capacity Manual-Special Report 209* shall be used in the analysis. The following values shall be used:

- Peak Hour Factor (PHF) shall be calculated for each intersection. At no time shall the PHF be higher than 0.90, regardless of the calculated value.

- Right Turn On Red (RTOR) shall not be used unless the approach has an exclusive right turn lane. If the approach has a right turn lane the maximum value shall be 100 vehicles per hour, unless otherwise approved by the Public Works Director.

Include turning movement volumes in the report. The latest City counts shall be used if available. If not, an independent count must be submitted in graphical format similar to the City's format.

A disk of the analysis model and a hard copy explanation of the scenarios by filename or line number are required. The computer worksheets that identify the input and output data shall be included in a technical appendix along with an electronic version (i.e., compact disk, flash drive or email) of the program data of each capacity analysis.

For unsignalized intersections, the *Highway Capacity Manual* methodology shall be used in the analysis. If the intersection or a particular movement fails, a signal warrant analysis shall be completed for the intersection.

8. Access Management

Requests for site access shall be addressed in the Traffic Impact Analysis. Recommendations shall include site access and transportation improvements needed to maintain traffic flow to, from, within and past the site at an acceptable and safe level of service.

Areas to address include:

- Separate conflict areas. Reduce the number of access points or increase their spacing so conflict areas or maneuver areas do not overlap.
- Limit the type of conflict areas by preventing certain maneuvers.
- Remove turning vehicles or queues from through lanes.
- Safety of a proposed access (sight distance both horizontally and vertically), including pedestrian features.
- Reduce the speed differential in through lanes between through vehicles and turning vehicles.
- Consider the impact of access points on adjacent or nearby properties on both sides of the roadway.

Improvements include such things as: relocation, restriction, or elimination of access point(s); roadway widening; turning lanes; traffic signals; modern roundabouts; and pedestrian facilities.

9. Traffic Calming

Internal traffic calming shall be incorporated into all developments to control cut-through traffic and reduce speed within the development. The Traffic Impact Analysis shall identify and propose specific traffic calming measures and locations to be incorporated in the development. Traffic calming shall be aesthetically pleasing. Public transportation shall also be evaluated. The traffic-calming plan shall include an overall drawing of the development and identify specific locations and features to be included in the development. The proponent's Traffic Engineer shall work with the Public Works Department to develop a traffic-calming plan for the development.

10. Alternate Modes of Transportation

Identify deficiencies in other modes of travel and strategies to encourage these alternate modes. New developments are encouraged to implement Transportation Demand Management practices. An Exhibit should be prepared to identify existing transit routes and stops, bicycle lanes and sidewalks within the vicinity of the development. The

Traffic Impact Analysis shall identify deficiencies in the system to be mitigated.

11. Mitigation

The Traffic Impact Analysis shall include a proposed mitigation plan. The mitigation may be either the construction or financial commitment of the necessary transportation system improvements, or contributions to the City for the development's proportionate share of the improvements.

The Level of Service standards shall be used as the threshold for determining appropriate mitigating measures in the study area. The adopted level of service standards for the intersection of Wallace Kneeland Boulevard and Olympic Highway North is LOS E. All other areas have an adopted LOS of D.

The following guidelines shall be used to determine appropriate mitigating measures of traffic impacts generated by the development.

a. To maintain the adopted Level of Service standard, the development shall provide a financial guarantee or construct improvements to maintain the level of service at or above the adopted standard. This improvement must be consistent with the Transportation Element of the *City of Shelton Comprehensive Plan* goals and policies.

b. Transportation facilities affecting neighboring jurisdictions shall mitigate the impacts based on a per trip methodology approved by the jurisdiction.

c. On transportation facilities where the existing Level of Service condition is less than the adopted LOS standard and where no improvements are planned to improve capacity and traffic operations, the development shall mitigate the intersection to an acceptable Level of Service condition or wait until the improvements are implemented by the City or other developments.

If the analysis identifies a LOS deficiency for an un-signalized intersection that is not scheduled for an improvement, alternate roadway connections or non-

controlled intersection improvements approved by the Public Works Director shall be appropriate mitigating measures. A controlled intersection (traffic signal, modern roundabout) to alleviate a LOS deficiency is not required. If sufficient alternate routes exist as determined by the Public Works Director mitigation will not be required.

If there are no alternatives to installation of a controlled intersection, and two or more traffic signal warrants, as outlined in the MUTCD (*Manual on Uniform Traffic Control Devices*) are satisfied within the horizon year of the development, a traffic signal or modern roundabout will be required as a mitigating measure for the development.

2.070 Signing

The developer is responsible for providing and installing all necessary traffic control signs (including poles and hardware). Traffic control signing shall comply with the provisions as established by the *Manual on Uniform Traffic Control Devices* (MUTCD).

2.080 Right-of-Way

Right-of-way is determined by the functional classification of a street. See Table 2.050, Section 2.020, and Section 2.030.

2.090 Private Streets

A. Private streets may be approved under the following conditions:

1. Permanently established by tract or easement providing legal access to serve more than one but no more than 4 dwelling units or businesses on separate parcels, or unlimited dwellings units or businesses situated on one parcel and sufficient to accommodate required improvements, to include provisions for future use by adjacent property owners when applicable, and,

2. Accessible at all times and with sufficient load bearing capacity for emergency and public service vehicle use, and,

3. Will not result in land-locking parcels nor obstruct public street circulation nor be inconsistent with the surrounding grid system and,

4. Covenants have been approved, recorded, and verified with the City that provide for maintenance of the private streets and associated parking areas by the owner or homeowners association or other legal entity.

5. Owners may be required to sign an indemnification for any damages.

B. Private Streets will not be approved by the City in an area or location that is identified by the City as a known or potential extension of existing public rights-of-way.

C. Acceptance as Public Streets. Acceptance of private streets as public streets will be considered only if the street(s) meet all applicable public street and utility standards.

2.100 Street and Alley Frontage Improvements

A. All new construction projects, substantial remodels on existing lots, and all short platting of land within Neighborhood Residential (NR) Zoning District shall complete improvements (as shown in drawing (T-27) or pay a Frontage Improvement Charge (FIC) in conformance with these standards and SMC 12.36 in lieu of the more formal improvements identified in Table 2.050.

All projects on the critical pedestrian route (see page 2-20a) shall pay the Frontage Improvement Charge (FIC).

B. When constructing right-of-way improvement not associated with new development projects, such as the construction of improved driving surfaces, new or upgraded sidewalks/paths, or the installation of new stormwater system improvements, it is not necessary that the road system be improved to include all elements that constitute full frontage improvements as required by these Standards. In this instance, constructed improvements shall meet the minimum standard for the element being constructed and ADA standards for accessibility.

C. Unless payment of a FIC is an option, street frontage improvements, in conformance with these standards, will be required along all street frontages adjacent to a development. Corner lots are also responsible for improving adjacent street intersections.

D. Minimum improvements, of any development, will require the developer to clear and grade 15' of right-of-way measured from the centerline of the right-of-way irrespective of the location of the existing traveled way.

E. Alley frontage improvements will be required along all adjacent development and shall meet the following requirements:

1. Alleys within the residential zones of the city shall be constructed of compacted crushed aggregate for the full width of the alleys.
2. Alleys within the Mixed-Use and Non-Residential zones of the city shall be constructed per section 2.180 of these Standards for the Full width of the alleyway.

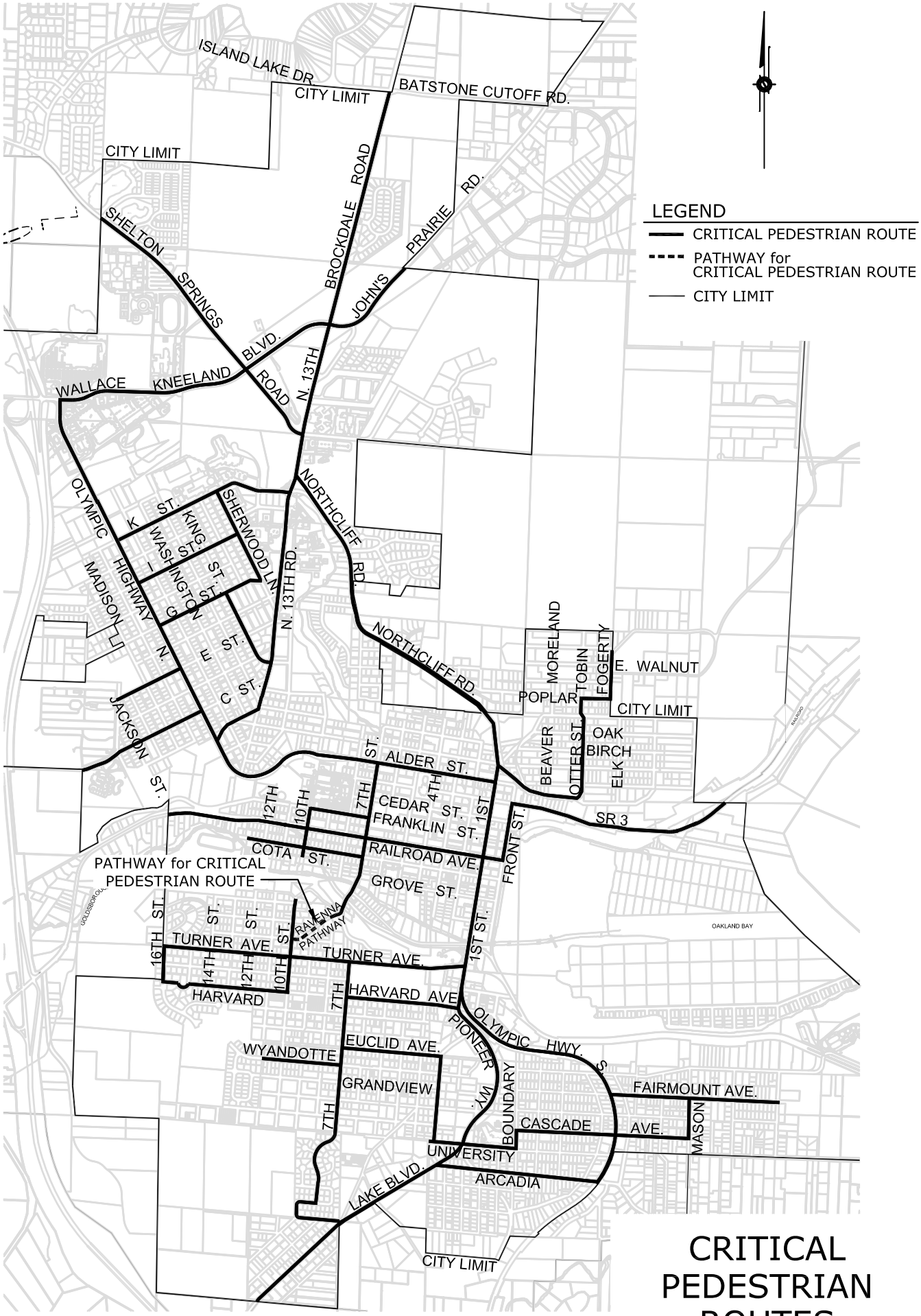
All plats and re-plats shall install all street and alley frontage improvements at the time designated in the municipal code. Such improvements shall include: curb and gutter; sidewalk; storm drainage; street lighting system; traffic signal modification, relocation, or installation; utility relocation; landscaping and irrigation; and street improvements per Table 2.050; and any other applicable sections of these Standards. Plans shall be prepared and signed by a licensed civil engineer register in the State of Washington.

2.110 Cul-de-sac

In general, the City discourages the use of cul-de-sacs per Section 2.040 of these Standards. Streets designed to have one end permanently closed shall be no longer than 400-feet. At the closed end, there shall be a widened "bulb" having a minimum paved traveled radius as shown in the Minimum Street Design Table.

2.120 Temporary Dead Ends

Where a street is temporarily dead ended, turn-around provisions must be provided where the road extends more than 150 feet. The turnaround may be a hammerhead with a



CRITICAL PEDESTRIAN ROUTES

minimum distance on both sides at the centerline intersection of 60 feet to facilitate emergency vehicle turn-around.

2.130 Half Street

A half street is an otherwise acceptable arterial roadway section modified to conform to limited right-of-way on the boundary of the property subject to development, or when constructing a portion of the road section when less capacity is necessary for adequate levels of service. A half street may be permitted by the Public Works Director when:

A. Design of a full street, including phasing of construction, is prepared by a licensed professional civil engineer and submitted for review and approval by the City; and,

B. A traffic impact analysis is prepared by a licensed professional traffic engineer and submitted for review and approval by the City that fulfills City guidelines for a traffic impact analysis and which demonstrates that the half-street will be safe and of adequate capacity for the use being proposed; and,

C. When required, there is written assurance of obtaining the prescribed additional right-of-way from the adjoining property suitable for completion of a full-section roadway; and,

D. Such alignment is consistent with or will establish a circulation pattern.

2.140 Medians

Medians shall be in addition to, not part of, the specified roadway width. Medians shall be designed so as not to limit the turning radius or the sight distance at intersections. Landscaping and irrigation, hardscape, or a combination shall be installed in all medians.

2.150 Intersections

A. Traffic control will be as specified in the *Manual on Uniform Traffic Control Devices (MUTCD)* or as modified by the City as a result of appropriate traffic engineering studies.

B. Street intersections shall be laid out so as to intersect as nearly as possible at right angles. For safe design, the following types of intersection features shall be avoided:

1. Intersections with more than four intersecting streets;

2. "Y" type intersections where streets meet at acute angles;

3. Intersections adjacent to bridges and other sight obstructions.

C. Spacing between adjacent intersections, whether crossing or "T", shall be a minimum of 300 feet measured centerline to centerline, unless otherwise approved by the City. When the roadway is classified as a Principal Arterial, the minimum offset for the centerline involved shall be 350 feet.

D. On sloping approaches at an intersection, landings shall be provided with a grade not to exceed one foot difference in elevation for a distance of 30-feet approaching any arterial or 20-feet approaching a collector or local access street, measured from nearest right-of-way line (extended) of the intersecting street. The Public Works Director may direct the use of a greater distance when required for public safety.

2.160 Driveways

A. All driveway approaches crossing sidewalks shall be constructed of Portland Concrete Cement and shall be subject to the same testing and inspection requirements as curb, gutter and sidewalk construction. See Standard Detail T-04.

B. Joint-use driveways serving two adjacent parcels may be built on their common boundary upon formal written agreement by both property owners and approval of the City. The agreement shall be a recorded easement for both parcels specifying maintenance and joint usage in perpetuity.

C. All abandoned driveways shall be removed and the curbing and sidewalk or shoulder and ditch section shall be properly restored.

D. Grade breaks, including the tie to the roadway, shall be constructed as smooth vertical curves. The maximum change in driveway grade shall be 8 percent within any 10 feet of distance on a crest and 12 percent within any 10 feet of distance in a sag vertical curve.

E. No driveway may access an arterial street within 75 feet (measured along the arterial) of any other such arterial street access on either side of the street; provided that such access maybe located directly opposite another access, if approved by the City, or when lot dimension limitations will not permit this requirement to be met. No driveway access shall be allowed to an arterial street within 150 feet of the nearest right-of-way line of an intersecting street, unless otherwise approved by the City.

F. Within the limitations set forth above, access to arterial streets shall be limited to one driveway for each tract of property separately owned. Properties contiguous to each other and owned by the same person are considered to be one tract where practical. Shared access with adjacent properties will be encouraged.

G. Driveways giving direct access onto arterial streets may be denied if alternate access is available. No commercial driveway shall be approved where backing onto the sidewalk or street right-of-way will occur. No residential driveway shall be allowed to back out onto a sidewalk or street right of way unless otherwise approved by the Public Works Director, provided the developer can show that adequate sight distance exists and all safety issues are addressed.

H. The maximum driveway width for two-way access drives onto an arterial or collector shall be 24 feet for residential uses, 30 feet for commercial uses, and 35 feet for industrial uses. Maximum driveway widths for one way access drives onto an arterial or collector shall be 20 feet for residential, 20 feet for commercial, and 25 feet for industrial uses. A wider driveway width may be approved by the City where a substantial percentage of oversized vehicle traffic exists, where divisional islands are proposed, or where multiple exit or entrance lanes are needed.

I. Driveways shall be designed and constructed to not restrict surface water flow, and to provide positive drainage at the point of connection to the street.

J. The maximum driveway width onto a local access street shall be 24 feet for residential uses and 25 feet for commercial uses, unless otherwise approved by the Public Works Director. The maximum one way driveway width shall be 14 feet for residential and 22 feet for commercial driveways. Parking lot circulation and signing needs shall be met on site. The public right-of-way shall not be utilized as part of a one-way parking lot flow.

K. Road approaches and/or ingress and egress tapers may be required in industrial and commercially zoned areas as directed by the City. Tapers shall be designed per the current edition of the *AASHTO Manual.*

L. Maintenance of sidewalks and driveways is the responsibility of the property owner per Section 12.08.030 of the Shelton Municipal Code.

2.170 Sight Obstruction

The following sight clearance requirements take into account the proportional relationship between speed and stopping distance. The sight distance area is a clear-view triangle formed on all intersections by extending two lines of specified length (A) and (B) from the center of the intersecting streets along the centerlines of both streets and connecting those endpoints to form the hypotenuse of the triangle. The area within the sight distance triangle shall be subject to restrictions to maintain a clear view of the intersection approaches. See Detail T-12.

A. Sight Distance Triangle for Stop or Yield-Controlled Intersections:

	Sight Distance (Feet)	
Speed Limit	Major Street (A)	Minor Street (B)
20 mph	200	*
25 mph	250	*
30 mph	300	*
35 mph	350	*
40 mph	400	*

B. Sight Distance Triangle for Uncontrolled Intersections:

	Sight Distance (Feet)	
Speed Limit	Major Street (A)	Minor Street (B)
20 mph	90	90
25 mph	110	110
30 mph	130	130
35 mph	155	155
40 mph	180	180

The vertical clearance area within the sight distance triangle shall be free from obstructions to a motor vehicle operator's view between a height of 3-feet and 10-feet above the existing surface of the street. Sight distance is measured from a point on the minor road 15 feet from the edge (extended) of the major road edge of traveled way, and from a height of 3.50 feet on the minor road to a height of 4.25 feet on the major road.

Where different sight obstruction requirements are set forth in the Shelton Municipal Code than are set forth in these *Standards,* the most stringent requirement shall apply

2.180 Surfacing Requirements

A. The following are the surfacing requirements for each application listed. These designs are based on Washington stabilometer subgrade R-value of 5, and assumes that no analysis of the properties of the on-site “native” material has been conducted. The “ballast” material may be eliminated from the standard pavement sections where testing shows that the native material conforms to the material properties for ballast (or an approved equivalent) as indicated in the WSDOT standard specifications.

Alternate structures will be accepted if soil tests based on a 25-year life using standard AASHTO (WSDOT) engineering analysis is provided to justify the alternative section. Soil tests and a completed analysis for each road classification shall accompany plans submitted if structures other than those shown below are used.

B. Soil tests shall be performed by an Engineer specializing in soils analysis. One soil sample per each 500 LF of centerline with 3 minimum per project representative of

the roadway subgrade shall be taken to determine a statistical representation of the existing soil conditions.

C. The soils report, signed and stamped by a soils engineer licensed by the State of Washington, shall be based on actual soils tests and submitted with the plans. All depths indicated are a minimum compacted depth.

Principal and Minor Arterial Streets

Surfacing:	0.50' HMA Class 1/2" PG 64-22 Asphalt
Top Course:	0.17' Crushed Surfacing Top Course
Base:	2.08' Ballast

Alternate	
Surfacing:	0.50' HMA Class 1/2" PG 64-22 Asphalt
Top Course:	0.61' Asphalt Treated Base (ATB)
Base:	0.17' Crushed Surfacing Top Course

Major Collector Streets

Surfacing:	0.33' HMA Class 1/2" PG 64-22 Asphalt
Top Course:	0.17' Crushed Surfacing Top Course
Base:	2.09' Ballast

Alternate:	
Surfacing:	0.33' HMA Class 1/2" PG 64-22 Asphalt
Top Course:	0.62' Asphalt Treated Base (ATB)
Base:	0.17' Crushed Surfacing Top Course

Minor Collector Streets

Surfacing:	0.33' HMA Class 1/2" PG 64-22 Asphalt
Top Course:	0.17' Crushed Surfacing Top Course
Base:	1.36' Ballast

Alternate:	
Surfacing:	0.33' HMA Class 1/2" PG 64-22 Asphalt
Top Course:	0.39' Asphalt Treated Base (ATB)
Base:	0.17' Crushed Surfacing Top Course

Local Streets/Private Streets

Surfacing:	0.25' HMA Class 1/2" PG 64-22 Asphalt
Top Course:	0.17' Crushed Surfacing Top Course
Base:	0.69' Ballast

Alternate:
Surfacing: 0.25' HMA Class 1/2" PG 64-22 Asphalt
Top Course: 0.20' Asphalt Treated Base (ATB)
Base: 0.17' Crushed Surfacing Top Course

Alleys

Surfacing: 0.33' HMA Class 1/2" PG 64-22 Asphalt
Top Course: 0.17' Crushed Surfacing Top Course
Base: 2.09' Ballast

Alternate:
Surfacing: 0.33' HMA Class 1/2" PG 64-22 Asphalt
Top Course: 0.62' Asphalt Treated Base (ATB)
Base: 0.17' Crushed Surfacing Top Course

Sidewalks

Surfacing: 4" 3000 psi Concrete
Base: 2" Crushed Surfacing Top Course/well-graded sand
Asphalt sidewalks are not permitted.

Driveways

Surfacing: 6" 3000 psi Concrete, plus rebar as per Detail T-04
Base: 1" Crushed Surfacing Top Course/well-graded sand

Class 1 Bikeway or Pedestrian Path

Surfacing: 4" 3000 psi Concrete
Base: 2" Crushed Surfacing Top Course

Alternate:
Surfacing: 3" HMA Class 1/2" PG 64-22 Asphalt
Top Course: 2" Crushed Surfacing Top Course
Base: 4" Ballast

2.190 Street Pavement Patching

A. Temporary restoration of trenches shall be accomplished by using 2" HMA Asphalt Concrete Pavement when available, 2" medium-curing (MC-250) Liquid Asphalt (cold mix), 2" Asphalt Treated Base (ATB) or steel plates.

B. ATB used for temporary restoration may be placed directly into the trench, bladed, and rolled and compacted. After

rolling, the trench must be filled flush with asphalt concrete pavement to provide a smooth riding surface.

C. All temporary patches shall be maintained in good condition by the contractor until such time as the permanent pavement patch is in place. The permanent patch shall be accomplished within 7 calendar days unless otherwise approved by the City. Any temporary patch that requires more than 7 calendar days shall be hot mix asphalt concrete pavement.

D. If the contractor does not maintain a temporary pavement patch for whatever reason, the City will patch it and bill the contractor for actual costs plus overhead.

2.200 Trench and Pavement Cut, Backfill and Restoration

A. All work done in roadways is subject to the requirements of the City Right of Way permits, which may include performance and/or maintenance bonding.

B. Trenches shall be excavated to the line and depth designated by the City. Except for unusual circumstances where approved by the City, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space. Federal, state and local regulations for safety must be adhered to. Surface water shall be diverted so as not to enter the trench. Where water is encountered in the trench, it shall be removed during pipe laying operations, and shall be so maintained until the ends of the pipe are sealed and provisions are made to prevent floating of the pipe. Except in the case of unusual circumstances, trench water or other deleterious materials shall not be allowed to enter the pipe at any time. The contractor shall maintain sufficient pumping equipment on the job to ensure that these provisions are carried out.

1. All initial trench and pavement cuts shall be made by milling HMA, a spade bladed jackhammer or with saw cuts. All final cuts shall be made by saw cuts placed at a minimum of 1-foot outside the trench width.

2. Bank Run Gravel for Trench Backfill meeting WSDOT Standard Specification 9-03.19 shall be used for the backfilling of trenches in the pavement area of streets,

unless otherwise approved by the City. When public safety concerns exist, the City may require more stringent backfilling standards. The trench shall be compacted to 95% per WSDOT Standard Specification 2-03.3(14)C method C. Daily compaction reports from an independent, certified testing agency licensed in the state of Washington.

3. All trenching in a gravel shoulder section outside of the pavement or in a Gravel Surfaced Roadway shall be backfilled with Bank Run Gravel for Trench Backfill meeting WSDOT Standard Specification 9-03.19. The trench shall be compacted to 95% per WSDOT Standard Specification 2-03.3(14)C method C. Daily compaction reports from an independent, certified testing agency licensed in the state of Washington.

If the existing native material is determined by the City to be suitable for backfill in trenches in either a paved or gravel roadway, the contractor may use the native material with City approval prior to placement up to the bottom of the surfacing requirements. The trench shall be compacted to 95% per WSDOT Standard Specification 2-03.3(14)C method C. Daily compaction reports from an independent, certified testing agency licensed in the state of Washington.

C. All asphalt restoration shall be as specified in these Standards, or to the depth of the existing pavement, whichever is greater. Existing asphalt edges shall be sawcut to a smooth straight edge prior to final patching, unless otherwise approved by the City.

D. All concrete restoration shall be sawcut to a smooth, straight edge prior to final patching, unless otherwise approved by the City. 3000 psi concrete shall be used, and shall be poured to the same depth and alignment as the existing pavement. Dowling may be required by the City.

E. If an existing concrete is overlaid with asphalt, the asphalt shall be replaced as described below:

1. Tack coat shall be emulsified asphalt grade CSS-1 as specified in Section 9-02.1(6) of the WSDOT/APWA *Standard Specifications*. Tack coat shall be applied as

specified in Section 5-04.3(5)A; joint sealing shall comply with Section 5-04.3(5)C.

2. HMA shall be placed on the prepared surface by an approved paving machine and shall be in accordance with the applicable requirements of Section 5-04 of the WSDOT/APWA *Standard Specifications*, except that longitudinal joints between successive layers of asphalt concrete shall be displaced laterally a minimum of 12-inches unless otherwise approved by the City. Fine and course aggregate shall be in accordance with Section 9-03.9 of the WSDOT/APWA *Standard Specifications*. Asphalt concrete shall be placed in equal 2-inch lifts unless otherwise approved by the City. In no case shall an asphalt lift exceed 3-inches. Tack coat is required between each lift.

F. All street surfaces, walks or driveways within the street trenching areas affected by the pavement cut shall be feathered and shimmed to an extent that provides a smooth riding connection and expeditious drainage flow for the newly paved surface. Shimming and feathering shall be accomplished by raking out the oversized aggregates from the mix as appropriate. Surface smoothness shall be in accordance with Section 5-04.3(13) of the WSDOT *Standard Specifications*. All joints shall be sealed using paving asphalt CSS-1.

G. The final patch shall be completed within 7 calendar days unless otherwise approved by the City, but in no case later than 30 days after first opening the trench. The contractor shall re-establish pavement markings in all locations where the existing pavement markings were disturbed by the contractor's operations.

H. When trenching within the road right of way(s), the right-of-way shall be restored to its original or better condition. All disturbed areas shall be seeded and mulched or similarly stabilized according to Best Management Practices outlined in the Department of Ecology *Stormwater Management Manual for Western Washington* within 14 days of disturbance. For sites where grass has been planted, the contractor's performance or maintenance bond will not be released until the grass has been thoroughly established, unless otherwise approved by the City.

2.210 Staking

All surveying and staking shall be performed by a Professional Land Surveyor, licensed within the State of Washington. A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction. The minimum staking of streets shall be as follows or as otherwise directed by the City:

A. Stake centerline every 50-feet in tangent sections and 25-feet in curved sections plus grade breaks, PCs PTs, high point and low points, with cut and/or fill to subgrade.

B. Stake top of ballast with red tops and top of crushed surfacing with blue tops, at centerline and at edge of pavement at the above-described intervals, and at grade breaks.

C. Stake top back of curb at the above described intervals with cut or fill to finished grade.

Any deviations from these minimum staking requirements shall be approved by the City.

2.220 Testing

Testing shall be required at the developer's or contractor's expense and shall be ordered by the developer or contractor. Testing shall be done on all materials and construction as specified in the WSDOT/APWA *Standard Specifications for Road, Bridge and Municipal Construction* with the frequency as specified herein, unless otherwise approved by the City.

In addition, the City shall be notified a minimum of 24-hours before work commences on each phase of street construction (i.e. staking, grading, subgrade, ballast, base, top course, and surfacing.)

2.230 Sidewalks, Curbs and Gutters, Driveways

These Standards as specified herein shall be met in the design and construction of sidewalks, curbs and gutters. Because these are minimum standards, the minimum requirements may be modified by the City when circumstances require increased or decreased widths, thicknesses or strengths.

A. Sidewalks

Sidewalks shall be required on both sides of all new streets.

1. Sidewalks shall be constructed of 3000 psi Portland Cement Concrete at a minimum of 4-inches thick. When the sidewalk, curb and gutter are contiguous, the width of the sidewalk shall be measured from back of curb and gutter to back of sidewalk (per Standard Detail T-02).

2. The project proponent is responsible for the design and construction or sidewalks on both sides of streets interior to a development, and on the development side of streets abutting the exterior of said development, including cul-de-sacs.

3. The width of sidewalks shall be shown in the approved design drawings. Those bicycle and pedestrian pathways designated in any adopted City of Shelton comprehensive bicycle and pedestrian plan shall, in addition, meet the minimum requirement established. The City shall require that the design of all sidewalks provide for a gradual rather than an abrupt transition between sidewalks of different widths or alignments. Plans for construction of sidewalks, curbs and gutters are to be submitted as part of the street plan when applicable.

4. Maintenance of sidewalks is the responsibility of the abutting property owner, per Section 12.08.030 of the Shelton Municipal Code.

5. Handicap Ramps
   All sidewalks must be constructed to provide for handicap ramps in accordance with the standards of state and federal law. Handicap ramps shall be

constructed of 3000 psi Portland Cement Concrete. Form and subgrade inspections by the City are required before each handicap ramp is poured. See Standard Details T-07 through T-11.

6. Utility Locations
All above-grade utilities shall be located outside of the edge of the sidewalk whenever possible. When it is necessary to place utilities within the limits of the sidewalk, such utilities shall be in compliance with all clear zone requirements and placed so as not to hinder pedestrian traffic.

B. Curb and Gutter

1. Curbs and gutters shall be required on both sides of all new streets. Cement concrete curb and gutter shall be used for all street edges, unless otherwise approved by the City. All curbs and gutters shall be constructed of 3000 psi Portland Concrete Cement. See Detail T-03. Extruded curb and gutter per WSDOT/APWA *Standard Specifications* may be approved by the City following submission and approval of the design mix.

2. Materials shall meet the requirements of Section 8-14 of the WSDOT *Standard Specifications.*

3. The use of calcium chloride as an admixture is prohibited.

C. Staking for Sidewalks, Curbs and Gutters

The minimum staking of sidewalk, curb and gutter shall be as follows, or as otherwise directed by the City:

1. Stake curb every 50-feet in tangent sections and 25-feet in curved sections plus grade breaks, PC's, PT's, high point and low points, with cut or fill to finished grade.

2. Staking shall be performed by a professional land surveyor, licensed within the State of Washington.

3. A pre-construction meeting shall be held with the City prior to commencing staking.

4. All construction staking shall be inspected by the City prior to construction.

D. Construction

1. The City shall be notified before each phase of sidewalk, curb and gutter construction begins. Form and subgrade inspections by the City are required before sidewalks, curbs and/or gutters are poured. Monolithic pour of curb, gutter and sidewalk will not be allowed. See Standard Details T-02, T-03 and T-06.

2. The curb and gutter section shall be placed prior to the placement of the sidewalk section unless otherwise approved by the City. Subgrade shall be approved by the City prior to concrete being placed. Expansion joints shall be placed to match those placed in curbs if new sidewalk is poured adjacent to a curb and gutter. In all other cases, the spacing on expansion joints shall be no greater than 15 feet center to center. Dummy joints shall be ¼ inch by 1 inch on 5-foot centers. Through joints shall be ½ inch, and shall extend to the bottom of the concrete. See Detail T-06.

3. A minimum distance of 2 feet is required from the face of curb to any obstruction on or within the sidewalk unless otherwise noted.

4. It is expected there will be sufficient native material excavated from various portions of the improvement to fill low areas in the sidewalk subgrade and planting strip area when needed. When there is insufficient suitable native material on the project site, the contractor shall furnish, place and compact Gravel Borrow. All sidewalks shall be constructed over a minimum 2 inches of crushed surfacing top course or well-graded sand meeting the requirements of Section 9-03.9(3) of the *WSDOT Standard Specifications* and compacted to 95% of maximum density.

5. Steel forms may be used upon approval of the City. Forms shall be staked to a true line and grade. A subgrade template shall then be set upon the forms and the fine grading completed so that the subgrade

will be a minimum of 3 5/8 inches below the top of the forms. Slip base break away assembly shall be provided for all street name sign and traffic sign posts, unless otherwise approved by the City. See Standard Detail M-09.

6. Around utility poles, blockouts shall be constructed around the pole of ¾ inch expansion joint material and 18" greater in diameter than the pole.

7. The concrete shall be spread uniformly between the forms and thoroughly compacted. Through joints and dummy joints shall be located and constructed in accordance with these *Standards.* See Detail T-06. In construction of through joints, the expansion joint material shall be adequately supported until the concrete is placed on both sides of the joint.

8. Whenever castings are located in the sidewalk area, joints shall be installed at the casting location to control cracking of the sidewalk. If spacing of joints or scoring is such that installation of joint material would be unsuitable, the contractor shall install rebar to strengthen the sidewalk section.

9. Expansion joints and dummy joints shall be positioned in true alignment at right angles to the line of the sidewalk and be normal to and flush with the surface.

10. After the concrete has been thoroughly compacted and leveled, it shall be finished with a float. The surface shall be broom finished in a transverse direction except that at driveway and alley crossings it shall be brushed longitudinally. After broom finish, the edges of the sidewalk and all joint shall be lightly edged again with an edging tool to provide a finished appearance.

11. Curing materials and procedures shall be as specified in Section 5-05.3(13) of the *WSDOT Standard Specifications*, except that white pigment curing compounds shall not be used on sidewalks.

12. The contractor shall have readily available sufficient protective covering, such as waterproof paper or plastic membrane, to cover the pour of an entire day

in event of rain or other unsuitable weather. In periods of low humidity, drying winds, or high temperatures, a fog spray shall be applied to concrete in order to prevent the formation of shrinkage cracks. The spray shall be continued until conditions permit the application of a liquid curing membrane or other curing media.

13. Specifications for hot and cold weather curing and protection of concrete sidewalks shall be consistent with 6-02.3 of the WSDOT *Standard Specifications.*

14. The sidewalk shall be protected against damage or defacement of any kind until it has been accepted by the City. Sidewalk which is not acceptable to the City shall be removed and replaced by the contractor at the contractor's expense.

E. Driveways

Driveways shall be constructed consistent with the specifications outlined in this section and with Standard Detail T-04.

F. Testing for Sidewalks, Curbs and Gutters

Testing shall be required at the developer's or contractor's expense on all materials and construction as specified in the Testing and Sampling Frequency Guide. See standard construction specifications.

2.240 Bikeways

Normally bikeways are shared with other transportation modes, although they may be provided exclusively for bicycle use. Bikeway or Urban Trail construction is required in conjunction with any new development or redevelopment, when the need for such a bikeway is indicated in an adopted City of Shelton Bikeway Plan. The design of bicycle paths shall depend upon their type and usage. Bikeway surfacing shall be as outlined in Section 2.190.

2.250 Street Illumination Design Standards

A. All development in the public right-of-way shall provide street lights in accordance with Section 840 of the WSDOT *Design Manual*, Illuminating Engineer Society (IES) and

American National Standards Institute (ANSI) approved design recommendations for roadway lighting, National Electrical Safety Code (NESC) requirements as specified by WAC 296-45-045; National Electric Code (NEC) requirements for roadway lighting, the *Mason County Public Utility District #3 Standards Book*, and these *Standards*.

B. A street lighting plan submitted by the applicant and approved by the City and Mason County PUD #3 shall be required for all street light installations. All public street light designs shall be prepared by a professional engineer licensed by the State of Washington and capable of performing such work. The street lighting plan shall be submitted on a separate sheet. The type of installation shall be as set forth in the *PUD #3 Standards Book* and as directed by PUD #3.

C. Areas that should be considered for roadway lighting include:

1. Areas where significant concentrations of pedestrians are crossing roads or any marked crosswalks such as near a school;

2. Curves or other abrupt change in the roadway direction;

3. Streets with frequent or hidden driveways and crossroads;

4. Locations with mid-street obstacles such as fountains, raised channelization or traffic circles;

5. Locations with measurably higher night to day accident ratios, merging lanes, intersections or any unusual roadway geometry.

D. The City should use a warrant system to assist its decision making on when and where new street lighting expenditures may be appropriate within available budgeted funds.

2.260 Street Illumination Construction (General Notes)

A. The General Notes as follow shall be included on any plans dealing with streetlight design and construction, in

addition to all applicable requirements of Mason County Public Utility District #3 and the City.

1. All workmanship, materials and testing shall be in accordance with the standards of Mason County PUD #3 and these *Standards.*

2. All safety standards and requirements shall be complied with as set forth by the State of Washington, Department of Labor & Industries.

3. A preconstruction meeting shall be held with the City of Shelton and Mason County PUD #3 prior to the start of construction.

4. All approvals and permits required by the City of Shelton and Mason County PUD #3 shall be obtained by the contractor prior to the start of construction.

5. The property owner is responsible for the payment of electrical charges prior to City acceptance of construction.

2.270 Traffic Signals

A. Traffic Signal Design Standards

Signal systems shall be designed in accordance with the specifications as set forth in the WSDOT *Design Manual* and the WSDOT/APWA *Standard Specifications* unless otherwise authorized by the City. All public traffic signal systems shall be prepared by an engineering firm capable of performing such work. The Engineer shall be licensed by the State of Washington. Traffic signals shall be installed per the requirements set forth herein. This work shall consist of furnishing and installing a complete and functional traffic control system of controllers, signals, pedestrian features, emergency preemption devices and appurtenances that meet traffic warrants.

B. Induction Loops

Induction loops shall be constructed per WSDOT/APWA *Standard Specifications* 8-20.3(14)C. Loops shall be performed in the crushed surfacing top course (CSTC) before paving, or shall be cut in existing asphalt or leveling course to sub-base before the intersection is overlaid.

C. Staking

All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The engineer or surveyor directing such work shall be licensed as a professional engineer or professional land surveyor by the State of Washington. A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction. The minimum staking for traffic signals shall be as follows:

1. Location, with cut or fill to center of all pole bases.
2. Location of junction box.
3. Location of all corners of controller base.
4. Location of service disconnect.

D. Testing

All signals shall be subject to any necessary electrical inspections by the State Department of Labor and Industries, Mason County PUD #3, and the City, as well as requirements as set forth in the WSDOT *Design Manual* and the WSDOT/APWA *Standard Specifications*. A signal system shall not be approved or accepted by the City until the signal has performed correctly to the City's satisfaction for a 30 day "check-out" period as outlined below. All parts and workmanship shall be warranted for one year from the date of acceptance.

Controller and cabinet testing by WSDOT District 3 laboratory shall be required by the City. All specifications and material samples shall be submitted to the City for review and approval prior to installation.

E. Traffic Signal Check-Out Procedures

The contractor shall call for an intersection check-out after completing the controller cabinet installation, along with all other signal equipment complete with wiring connections. New signals shall operate without any type of failure for a period of 30 days. The contractor shall have a person available to respond to system failures within 24 hours during the 30-day "check-out" period. Failure of any control equipment or hardware within the "check-out" period shall restart the 30-day "check-out"

2.280 Survey Monuments, Bus Stops, Benches, Mailboxes, Guard Rails, Retaining Walls, Street Trees and Parking Lots

A. Design Standards

Miscellaneous roadside features included herein shall be designed and constructed to encourage the uniform development and use of roadside features whenever possible.

The design and placement of roadside features shall adhere to Section 700, Roadside Safety, of the WSDOT *Design Manual*, the specific requirements as listed for each feature, and the applicable standards as set forth in Chapter One.

B. Survey Monuments

1. All existing survey control monuments and property corners that will be disturbed or destroyed during construction shall be referenced prior to construction and replaced after construction by a Professional Land Surveyor licensed by the State of Washington. All applicable RCW's and WAC's will be complied with, including but not limited to, WAC 332-120, WAC 332-130, and RCW 58.09. The monuments shall be replaced with the proper type as outlined below at the expense of the responsible builder or developer.

2. A pre-cast monument with cast iron monument case and cover installed per City of Shelton standards is required for all monumentation. See Detail T-15.

3. Appropriate monumentation shall be placed at all street intersections; at the PC and PTs of all horizontal curves

or at the PI if it lies in the traveled roadway; and at all dedicated land claim (DLC) corners, section corners, quarter corners and sixteenth corners that fall within the subdivision. The monument case shall be installed after the final course of surfacing has been placed.

C. Public Transit

Different population densities dictate the number and placement of transit bus stops:

1. The spacing, locations and design or specific bus stops shall be coordinated with the Mason County Transportation Authority. See Detail T-17.

2. Signage shall be placed in accordance with the MUTCD.

D. School Buses

1. The spacing, locations and design of specific bus stops shall be coordinated with the Mason County Transportation Authority. See Detail T-17.

2. Signage shall be placed in accordance with the MUTCD.

3. Location of school bus stops shall be designed with safety as a paramount concern. Major arterials with high traffic counts should be avoided where possible, and only used when bus pullouts are available and significant protection provided for children. School bus stops shall also be designed where possible to compliment residential development, and provide convenient location and access for neighborhood children.

E. Benches

Bench material and placement locations shall be approved by the City.

F. Mailboxes

During construction, existing mailboxes shall be accessible for the delivery of mail, or, if necessary, moved to a temporary location. Temporary relocation shall be coordinated with the U.S. Postal Service by the contractor. The mailboxes shall be reinstalled at the original location at the completion of construction or, if construction has made it impossible, to a location approved by the U.S. Postal Service and the City. New mailboxes shall be located as approved by the US Postal Service and the City of Shelton. Structures set in concrete shall adhere to the requirements of Details M-05, M-06, M-10 and M-10A.

G. Guardrails

For purposes of design and location, all guardrails along roadways shall conform to the criteria as outlined in the WSDOT *Design Manual* as may be amended or revised.

H. Staking

All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The engineer or surveyor shall be licensed as a Professional Engineer or Professional Land Surveyor by the State of Washington. A pre-construction meeting shall be held with the City prior to commencing staking. All staking shall be inspected by the City prior to construction.

I. Testing

Testing shall be required at the developer's or contractor's expense on all materials as specified in the WSDOT/APWA *Standard Specifications* and with a frequency as specified in the WSDOT *Construction Manual.*

2.290 Retaining Walls

A. Retaining walls proposed for development of private property shall be placed only on private property, and shall not be placed in the public right-of-way unless otherwise approved by the City. Design and construction shall conform to the Uniform Building Code, and the contractor shall obtain a building permit if required from the City.

B. If the City approves a retaining wall or walls to support the public right of way, such retaining wall(s) may occur in the right of way and shall be designed by an engineer licensed by the State of Washington and capable of performing such work. Retaining walls in the public right of way shall be designed to accommodate traffic loads as defined by the City. Plans for such retaining walls shall be submitted to the City for review and approval as to location, structural design, loading, and other relevant criteria as determined by the City.

2.300 Street Trees

A. Street trees shall be required within and along all designated tree corridors as defined in SMC 20.60.120. All street trees shall be installed with City approved root barriers. Designated tree corridors include:

- Railroad Avenue between Front Street and 7th Street,
- Cota Street between 1st Street and 6th street,
- 5th Street between Cota Street and Alder Street,
- Alder Street between 1st Street and 7th Street,
- Olympic Highway North between 13th Street and Wallace Kneeland Boulevard,
- Olympic Highway South between Fairmount Street and the City Limits.

Trees planted adjacent to streets on private property shall also comply with these specifications.

B. Unless otherwise approved by the City, street trees shall be installed in the numbers equal to one per forty feet of the sidewalk length to be constructed, excluding the sidewalk within a sight distance area as defined by Section 2.180 of these *Standards.* Street trees shall be planted at the edge of any such sight distance area(s) at intersections and driveways, but sight obstructions shall not be allowed within a sight distance area.

C. The design for street tree type(s), size, and locations(s) and planting procedures shall be prepared by a landscape architect licensed by the State of Washington and capable of performing such work. The plans for the installation of street trees, or any other proposed landscaping in the public right-of-way shall be submitted for review and approval by the City.

D. Street trees shall be of a type that will minimize the likelihood of future root upheaval or other damage to the sidewalk. In the selection of trees, consideration should be given to overall aesthetic impacts at maturity. The design of tree spacing should consider the tree canopy at maturity, which should be intended to connect and form a continuous tree canopy over the street, while not encroaching into pedestrian headroom or obstruct tall curbside vehicles such as buses. The type selected should be of a variety to reach a minimum of 20-feet in height at maturity, unless such height at maturity would generate conflicts with overhead electrical power lines. A 5-foot minimum clear zone shall be maintained between buildings and tree pits to allow adequate clearance for pedestrian. Design of street tree locations, tree pits and grates shall comply with all relevant Americans with Disabilities Act (ADA) requirements.

E. Trees shall be a minimum of 1-1/2 inches in trunk diameter at the time of installation. Each tree shall be installed in a tree well or pit with a minimum surface area of 3 feet x 3 feet. A 3'x3' cast iron grate with frame shall be installed at the top of the tree well or pit to match the surface of the adjacent sidewalk, as specified in the WSDOT/APWA *Standard Specifications for Road, Bridge and Municipal Construction.* The aesthetic design of the tree grate(s) shall be approved by the City.

F. Root control barriers should be installed for each tree per Standard Detail M-03 and M-04.

G. The owner shall be responsible for tree maintenance for one-year after Final Approval of construction and shall replace any damaged, diseased or dead trees within that year. The City will assume maintenance responsibility after that first year that better serves as street landscaping or beautification.

2.310 Parking Lots

A. All proposed parking lot construction requires a Site Plan Review, whether independent or in conjunction with a project that shall be determined through the Site Plan Review process.

B. Stormwater retention shall be provided and shall follow the criteria as set forth in Chapter 3 of these *Standards*, as

required by the Site Plan Review process. Plans and specifications shall be required to be submitted for review and approval by the City with respect to storm drainage discharge and on-site retention or detention, matching street and/or sidewalk grades, access locations, parking layout, and to check for future street improvement conformity and City zoning regulations.

C. If required through the Site Plan Review process and/or Chapter 20.40 of the Zoning Code, parking lot surfacing materials shall satisfy the requirement for a permanent all-weather surface. Asphalt concrete pavement and cement concrete pavement satisfy this requirement and are approved materials. All other proposed parking lot surface materials require specific approval by the City.

2.320 Roadside Safety Clear Zone

The clear zone is a primary consideration when analyzing roadside hazards. The intent is to provide as much clear, traversable area for a vehicle to recover as practical. The Design Clear Zone values shown in Exhibit 1600-1 of the WSDOT *Design Manual* are used to evaluate the adequacy of the existing clear zone and to provide a minimum target value for highway design. These values are not to be used as justification to compromise or take away from the existing clear zone.

A. Design Clear Zone inventory is required for all projects indicating evaluate upgrade (EU) or Full Design Level (F) for the clear zone columns on the design matrices. (See Chapter 1100 of the WSDOT *Design Manual*.) The Design Clear Zone Inventory Form (Exhibit 700-2) is to be used to inventory the roadside for potential hazards, identify the hazards and propose corrective actions. Eliminating the hazard is the preferred action. A roadside hazard shall be analyzed to determine if further mitigation is necessary even when it is beyond the values in Exhibit 1600-1. When locating a highway appurtenance (such as a sign bridge, bridge pier or sign post) in an otherwise unrecoverable area, the values in Exhibit 1600-2 are to be used as guidance in determining the need for mitigation.

B. The Design Clear Zone is a function of the posted speed, side slope, and traffic volume. There are no distances in the table for 1:3 fill slopes. Although fill slopes between 1:4 and 1:3 are considered traversable if free of fixed

objects, these slopes are defined as non-recoverable slopes. A vehicle may be able to begin recovery on the shoulder, but will be unable to further this recovery until reaching a flatter area (1:4 or flatter) at the toe of the slope. Under these conditions, the Design Clear Zone distance is called a recovery area. The method used to calculate the recovery area and an example are shown in Exhibit 1600-3.

C. For ditch sections, the following criteria determine the Design Clear Zone:

1. For ditch sections with foreslopes 4H:1V or flatter (See Exhibit 1600-4, Case 1, as an example), the Design Clear one distance is the greater of the following:

   - The Design Clear Zone distance for a 10H:1V cut section based on speed and ADT.
   - A horizontal distance of 5 feet beyond the beginning of the backslope. When a backslope steeper than 3H:1V continues for a horizontal distance of 5 feet beyond the beginning of the backslope, it is not necessary to use the 10H:1V cut slope criteria.

2. For ditch sections with foreslopes steeper than 4H:1V and backslopes steeper than 3H:1V, the Design Clear Zone distance is 10 feet horizontal beyond the beginning of the backslope (See Exhibit 1600-4, Case 2, for an example.)

3. For ditch sections with foreslopes steeper than 4H:1V or flatter, the Design Clear Zone distance is the distance established using the recovery area formula (See Exhibit 1600-3); also see Exhibit 1600-4, Case 3, as an example.)

Posted Speed (mph)	Average Daily Traffic	Cut Section (Backslope) (H:V)						Fill Section (H:V)					
		3:1	4:1	5:1	6:1	8:1	10:1	3:1	4:1	5:1	6:1	8:1	10:1
35 or Less		The Design Clear Zone Distance is 10 ft											
40	Under 250	10	10	10	10	10	10	*	13	12	11	11	10
	251 – 800	11	11	11	11	11	11	*	14	14	13	12	11
	801 – 2,000	12	12	12	12	12	12	*	16	15	14	13	12
	2,001 – 6,000	14	14	14	14	14	14	*	17	17	16	15	14
	Over 6,000	15	15	15	15	15	15	*	19	18	17	16	15
45	Under 250	11	11	11	11	11	11	*	16	14	13	12	11
	251 – 800	12	12	13	13	13	13	*	18	16	14	14	13
	801 – 2,000	13	13	14	14	14	14	*	20	17	16	15	14
	2,001 – 6,000	15	15	16	16	16	16	*	22	19	17	17	16
	Over 6,000	16	16	17	17	17	17	*	24	21	19	18	17
50	Under 250	11	12	13	13	13	13	*	19	16	15	13	13
	251 – 800	13	14	14	15	15	15	*	22	18	17	15	15
	801 – 2,000	14	15	16	17	17	17	*	24	20	18	17	17
	2,001 – 6,000	16	17	17	18	18	18	*	27	22	20	18	18
	Over 6,000	17	18	19	20	20	20	*	29	24	22	20	20
55	Under 250	12	14	15	16	16	17	*	25	21	19	17	17
	251 – 800	14	16	17	18	18	19	*	28	23	21	20	19
	801 – 2,000	15	17	19	20	20	21	*	31	26	23	22	21
	2,001 – 6,000	17	19	21	22	22	23	*	34	29	26	24	23
	Over 6,000	18	21	23	24	24	25	*	37	31	28	26	25
60	Under 250	13	16	17	18	19	19	*	30	25	23	21	20
	251 – 800	15	18	20	20	21	22	*	34	28	26	23	23
	801 – 2,000	17	20	22	22	23	24	*	37	31	28	26	25
	2,001 – 6,000	18	22	24	25	26	27	*	41	34	31	29	28
	Over 6,000	20	24	26	27	28	29	*	45	37	34	31	30
65	Under 250	15	18	19	20	21	21	*	33	27	25	23	22
	251 – 800	17	20	22	22	24	24	*	38	31	29	26	25
	801 – 2,000	19	22	24	25	26	27	*	41	34	31	29	28
	2,001 – 6,000	20	25	27	27	29	30	*	46	37	35	32	31
	Over 6,000	22	27	29	30	31	32	*	50	41	38	34	33
70	Under 250	16	19	21	21	23	23	*	36	29	27	25	24
	251 – 800	18	22	23	24	26	26	*	41	33	31	28	27
	801 – 2,000	20	24	26	27	28	29	*	45	37	34	31	30
	2,001 – 6,000	22	27	29	29	31	32	*	50	40	38	34	33
	Over 6,000	24	29	31	32	34	35	*	54	44	41	37	36

Notes:

This exhibit applies to:

- All state highways outside incorporated cities.
- Limited access state highways within cities.
- Median areas on managed access state highways within cities. (See 1600.04 for guidance on managed access state highways within incorporated cities.)

Curb is not considered adequate to redirect an errant vehicle.

Design Clear Zone distances are given in feet, measured from the edge of traveled way (see 1600.03.)

*When the fill section slope is steeper than 4H:1V, but not steeper than 3H:1V, the Design Clear Zone distance is modified by the recovery area formula (see Exhibit 1600-3) and is referred to as the recovery area. The basic philosophy behind the recovery area formula is that the vehicle can traverse these slopes but cannot recover (control steering); therefore, the horizontal distance of these slopes is added to the Design Clear Zone distance to form the recovery area.

Design Clear Zone Distance Table
Exhibit 1600-1

Washington State Department of Transportation

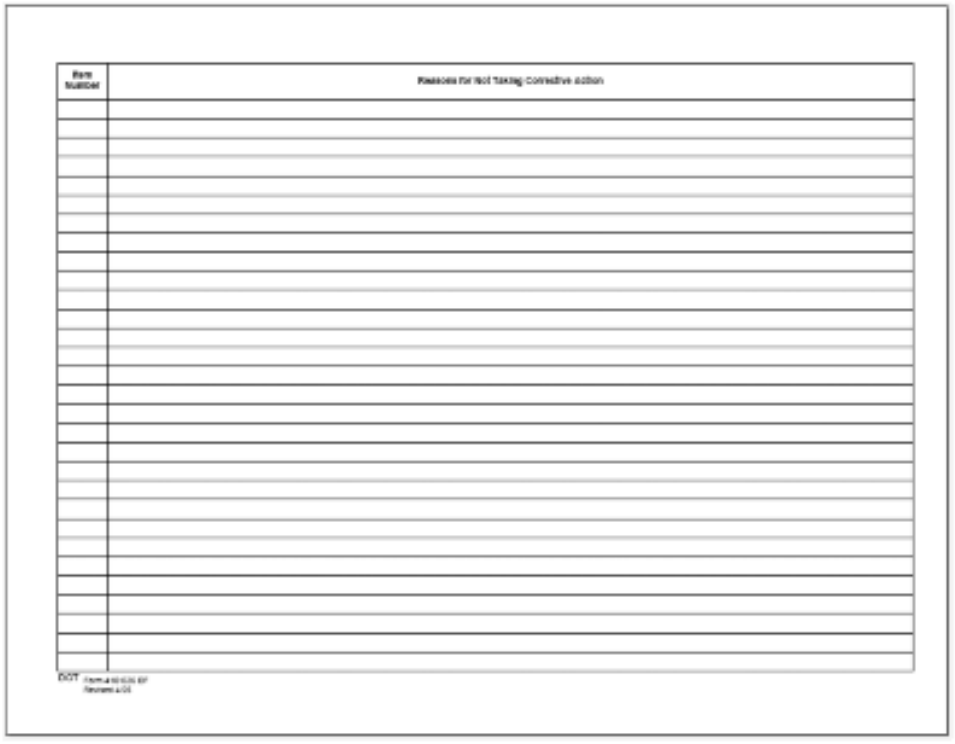
Design Clear Zone Inventory

Region	SR	Control Section	MP to MP	Date
Project Number	Project Title			Responsible Unit

Item Number	MP to MP	Distance From Traveled Way L	R	Description	Corrective Actions Considered (2)	Estimated Cost to Correct	Corrective Planned (1) Yes	No

(1) Only one "Yes" or "No" per item number. Corrections not planned must be explained on reverse side.
(2) A list of Location 1 & 2 Utility Objects to be forwarded to the region Utility Office for coordination per Control Zone Guidelines.

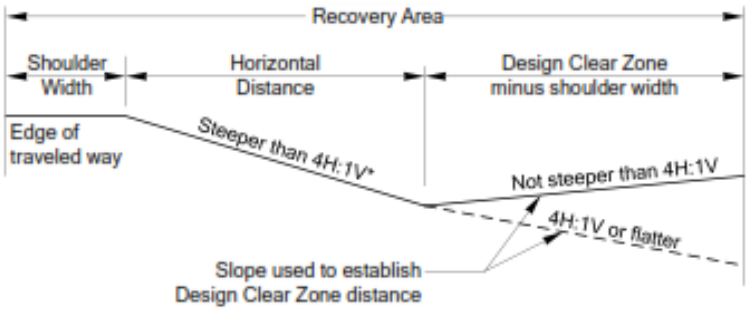
DOT Form 410-026 EF Revised 1/08



Item Number	Reasons for Not Taking Corrective Action

DOT Form 410-026 EF Revised 1/08

Design Clear Zone Inventory Form (# 410-026 EF)
Exhibit 1600-2



*Recovery area normally applies to slopes steeper than 4H:1V, but not steeper than 3H:1V. For steeper slopes, the recovery area formula may be used as a guide if the embankment height is 10 ft or less.

Formula:

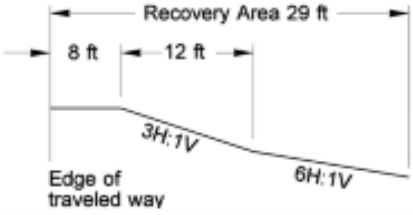
Recovery area = (shoulder width) + (horizontal distance)
+ (Design Clear Zone distance - shoulder width)

Example:

Fill section (slope 3H:1V or steeper)

Conditions: Speed – 45 mph
Traffic – 3,000 ADT
Slope – 3H:1V

Criteria: Slope 3H:1V – Use recovery area formula



Recovery area = (shoulder width) + (horizontal distance)
+ (Design Clear Zone distance - shoulder width)
= 8 + 12 + (17-8)
= 29 feet

Recovery Area
Exhibit 1600-3

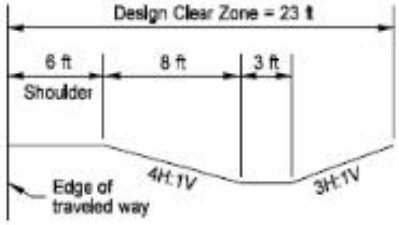
Cut section with ditch (foreslope 4H:1V or flatter)

Conditions: Speed – 55 mph
Traffic – 4,200 ADT
Slope – 4H:1V

Criteria: Greater of:

(1) Design Clear Zone for 10H:1V cut section, 23 feet
(2) 5 feet horizontal beyond beginning of backslope, 22 feet

Design Clear Zone = 23 feet



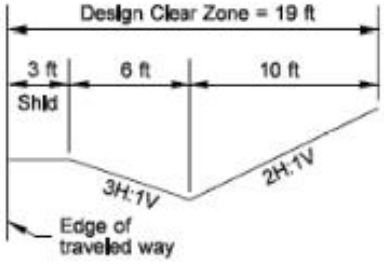
Case 1

Cut section with ditch (foreslope steeper than 4H:1V and backslope steeper than 3H:1V)

Conditions: NA

Criteria: 10 feet horizontal beyond beginning of backslope

Design Clear Zone = 19 feet



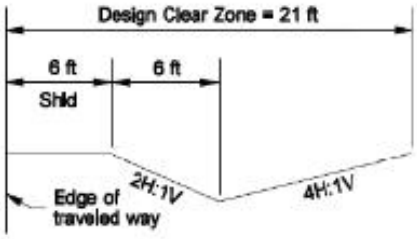
Case 2

Cut section with ditch (foreslope 3H:1V or steeper and backslope not steeper than 3H:1V)

Conditions: Speed – 45 mph
Traffic – 3,000 ADT
Foreslope – 2H:1V
Backslope – 4H:1V

Criteria: Use recovery area formula

Recovery Area = (shoulder width) + (horizontal distance) + (Design Clear Zone distance – shoulder width)
= 6 + 6 + (15 – 6)
= 21 feet



Case 3

Design Clear Zone for Ditch Sections
Exhibit 1600-4

2.330 Flashing Beacon

The City may require the installation of Warning Beacons or Rapid Flashing Beacons for intersection control, advanced warning, or to increase pedestrian safety at crosswalk locations. Installation of warning beacons and rapid flashing beacons shall meet the warrants listed in Chapter 4 of MUTCD, as indicated by pedestrian or traffic studies, or as directed by Public Works Director

A Flashing Beacon is a street traffic signal with one or more signal sections that operates in a flashing mode. It provides warning at crosswalks or supplemental emphasis to warning signs or regulatory signs, except STOP, DO NOT ENTER, WRONG WAY, and SPEED LIMIT sign.

Standard:

A. All Warning Beacons and Rapid Flashing Beacons shall be designed in accordance with the MUTCD, WSDOT Design Manual and WSDOT/APWA standard specification.

B. Flashing Beacon units and their mountings shall comply with the provisions of City of Shelton and the MUTCD, except as otherwise provided in this Chapter.

C. The flashing rates for warning beacons, rapid flashing beacons shall be in accordance with MUTCD.

D. Warning Beacon shall consist of one or more signal sections of a standard traffic signal capable of flashing operation.

E. A Warning Beacon shall be used only to supplement an appropriate warning or regulatory sign or marker.

F. Warning Beacons, if used at intersections, shall not face conflicting vehicular approaches.

G. Mounting heights for warning beacons mounted over the roadway shall meet the height requirement listed in Chapter 4 of the MUTCD.

H. Warning Beacons and Rapid Flashing Beacons shall be of TAPCO Inc. brand or approval equal.

Guidance:

A. The condition or regulation justifying Rapid Flashing Beacons should largely govern their location with respect to the roadway.

B. If an obstruction is in or adjacent to the roadway, illumination of the lower portion or the beginning of the obstruction or a sign on or in front of the obstruction, in addition to the beacon, should be considered.

C. Beacons should be operated only during those periods or times when the condition or regulation exists.

Option:

A. Warning Beacons that are actuated by pedestrians, bicyclists, or other road users may be used as appropriate to provide additional warning to vehicles approaching a crossing or other location.

B. If Warning Beacons have more than one signal section, they may be flashed either alternately or simultaneously.

C. A flashing yellow beacon interconnected with a traffic signal controller assembly may be used with a traffic signal warning sign.

D. An automatic dimming device may be used to reduce the brilliance of flashing yellow signal indications during night operation.

2.340 General Notes: Street Construction

In addition to the General Notes in Chapter One, the Engineer shall include the following notes on any plans dealing with the construction or alterations, extensions or connections to the transportation systems.

1. All work in the City requires a City of Shelton Business License.

2. Prior to working within the City right-of-way or on City property, the contractor must obtain a City of Shelton Right-of-Way permit. All contractors shall be licensed and bonded in the State of Washington. Proponent shall comply with all other permits and other requirements of the governing authority or agency. It is the contractor's responsibility to verify the location of right-of-way.

3. All curb and gutter, street grades, sidewalk grades, and any other vertical and/or horizontal alignment shall be staked by a licensed engineering or surveying firm capable of performing such work.

4. Where new asphalt joins existing asphalt, the existing asphalt shall be cut to a neat vertical edge and tacked with asphalt emulsion type CSS-1 per Section 9-02.1(6) of the WSDOT/APWA *Standard Specifications* . Tack coat shall be applied per Section 5-04.3(5)A. The new asphalt shall be feathered back over existing to provide for a seal at the saw cut location and the joint sealed In accordance with Section 5-04.3(5)C of the WSDOT/APWA *Standard Specifications.*

5. Compaction of subgrade, rock and asphalt shall be in accordance with the most current adopted version of the WSDOT/APWA *Standard Specifications*.

6. Form and subgrade inspection by the City is required before placing asphalt or concrete. 24-hour notice is required for form inspection.

7. Testing and sampling frequencies will be as described in the City of Shelton *Design and Construction Standards.*

8. The Contractor/Developer provides and installs street name and regulatory signs at their expense.

9. All curb and gutter, street grades, sidewalk grades, and any other vertical and/or horizontal alignment shall be staked by a licensed engineering firm or surveying firm capable of performing such work.

10. Compaction of subgrade, sub-base, base, surfacing, pavement, or layers of similar material shall be in accordance with Section 2-06 and Section 4.04.3(5) of the WSDOT/APWA *Standard Specifications.* Fill shall be provided in 6-inch maximum lifts unless otherwise approved by the City, and shall be compacted to 95 percent of its maximum relative density.

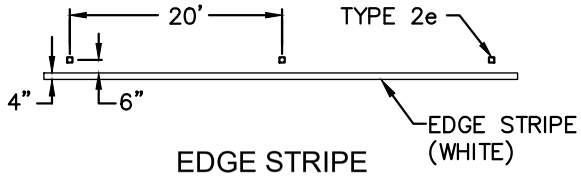
11. Fill shall be provided in 6-inch maximum lifts unless otherwise approved by the City, and shall be compacted to 95 percent of its maximum relative density.

12. Inspection by the City is required during all phases of construction. It is the contractor's responsibility to notify the City of his/her schedule. Inspection by City personnel shall be required during City work hours. City work hours are 8:00 AM to 5:00 PM Monday through Friday, except holidays. A minimum 24 hour notice is required for inspection of any work. No trenching on public right of way after 4:00 PM unless approved by the City. Other work such as backfilling, cleanup, etc., or as approved by the City is acceptable if 24 hours' prior notice is provided to the City.

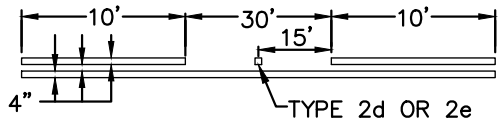
LIST OF DRAWINGS
CHAPTER 2 TRANSPORTATION

TABLE OF CONTENTS

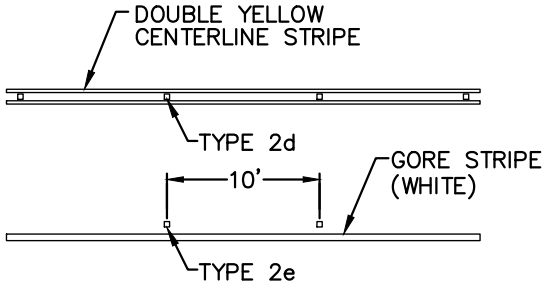
TRANSPORTATION DETAILS



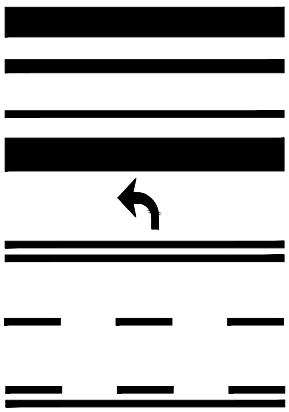
EDGE STRIPE



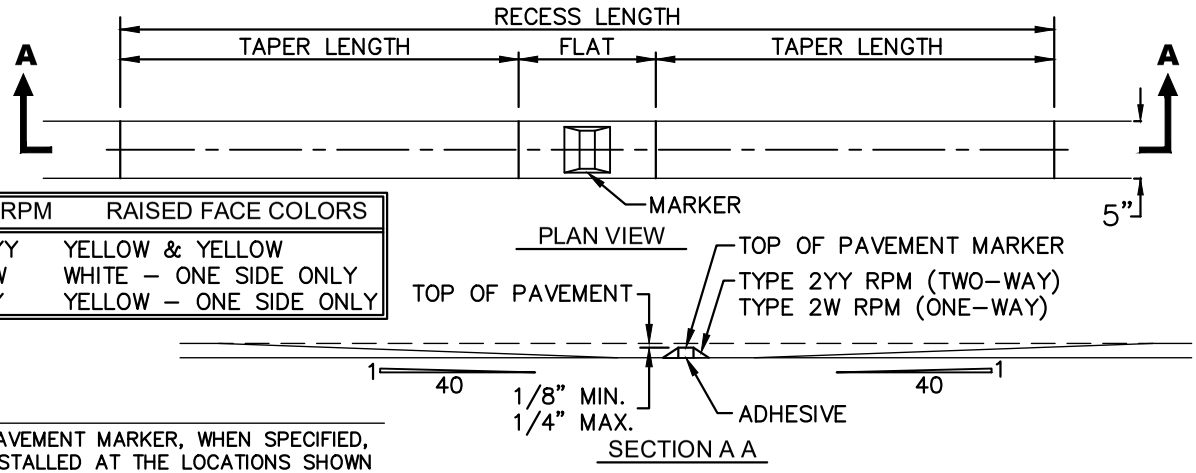
TWO WAY LEFT TURN



LEFT TURN LANE



PAVEMENT MARKER KEY



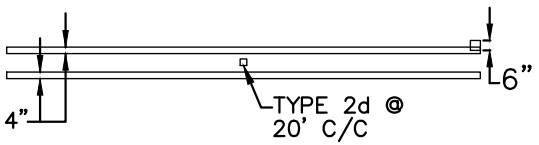
TYPE 2 RPM	RAISED FACE COLORS
TYPE 2YY	YELLOW & YELLOW
TYPE 2W	WHITE – ONE SIDE ONLY
TYPE 2Y	YELLOW – ONE SIDE ONLY

RECESSED PAVMENT MARKER DETAILS

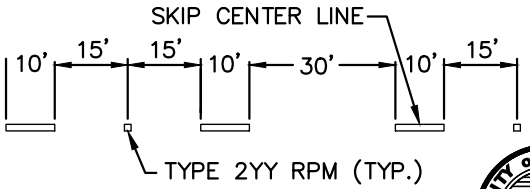
FOR USE WHERE SPECIFIED IN CONTRACT

NOTES:

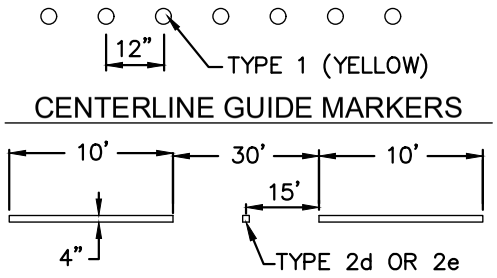
1. RECESSED PAVEMENT MARKER, WHEN SPECIFIED, SHALL BE INSTALLED AT THE LOCATIONS SHOWN FOR TYPE 2W RPM'S ON MULTILANE ONE-WAY ROADWAYS, AND TYPE 2YY RPM'S ON TWO LANE TWO-WAY ROADWAYS.
2. FOR LANE LINES, TYPE 2W RPM'S SHALL BE SPACED AT 80' INTERVALS ON TANGENTS AND HORIZONTAL CURVES WITH A RADIUS OF 5000' OR MORE, AND 40' INTERVALS ON HORIZONTAL CURVES HAVING RADII OF LESS THAN 5000'.
3. FOR CENTER LINES, TYPE 2YY RPM'S SHALL BE SPACED AT 80' INTERVALS ON TANGENTS AND HORIZONTAL CURVES WITH A RADIUS OF 5000' OR MORE, AND 40' INTERVALS ON HORIZONTAL CURVES HAVING RADII LESS THAN 5000' TYPE 2YY RPM'S ARE TO BE CENTERED BETWEEN SKIP LINES.



DOUBLE CENTERLINE STRIPE



TWO LANE TWO-WAY TRAFFIC



CENTERLINE GUIDE MARKERS

SKIP LANE STRIPE

NOTE: ALL PAVEMENT MARKERS ARE TO BE RECESSED IN ACCORDANCE WITH THE STATE OF WASHINGTON'S DEPARTMENT OF TRANSPORTATION CURRENT STANDARD PLANS SECTION M – ROADWAY DELINEATION, OR AS DIRECTED BY THE CITY ENGINEER.

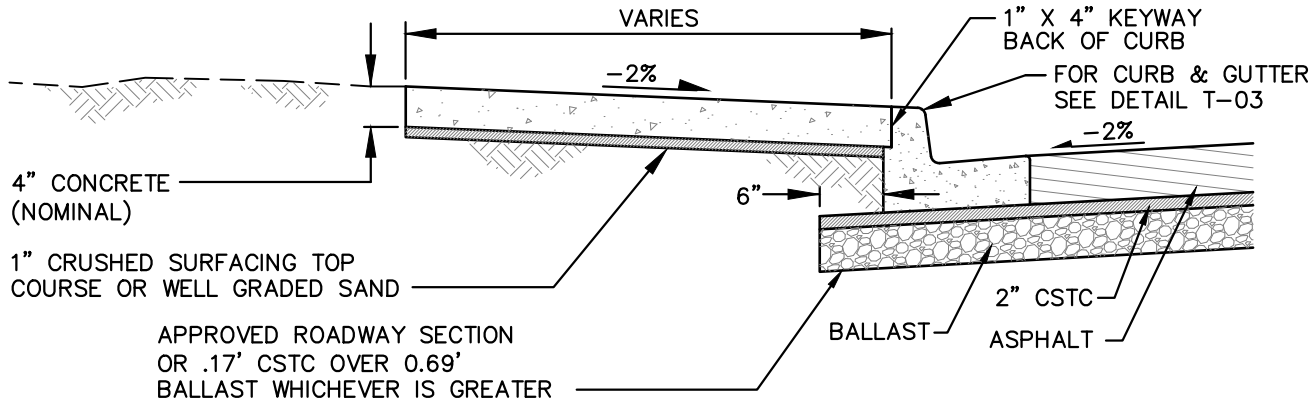
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

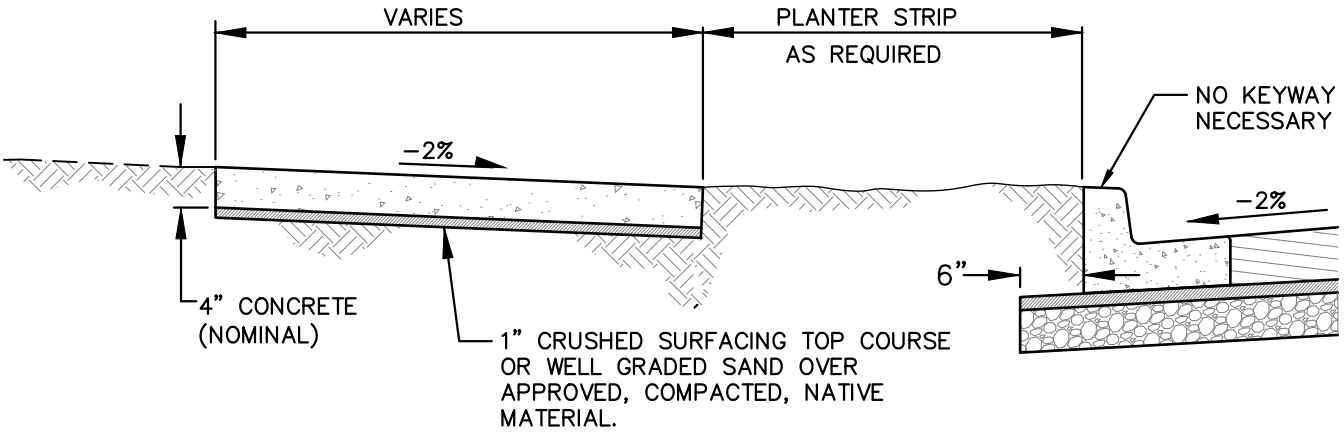
PAVEMENT MARKS & STRIPING DETAILS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

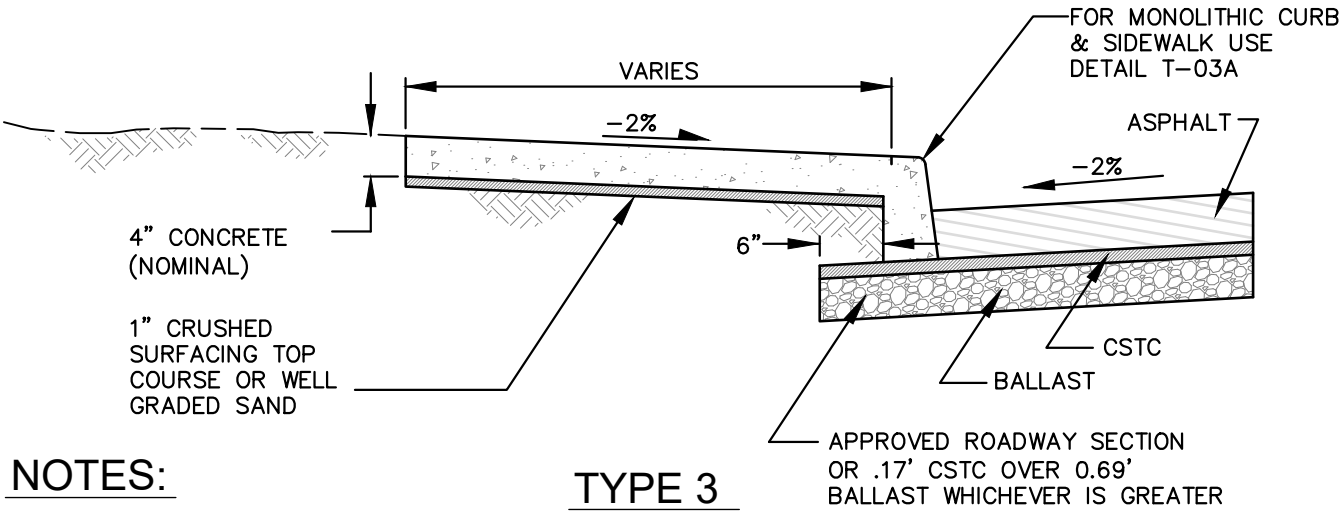
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-01



TYPE 1



TYPE 2



TYPE 3

NOTES:

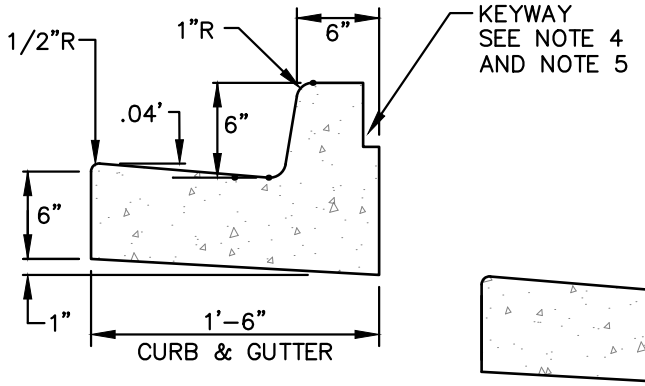
1. FOR EXPANSION, AND DUMMY JOINT REQUIREMENTS SEE CITY OF SHELTON STD. SIDEWALK DETAIL T-03A AND/ OR T-06.
2. CONCRETE DRIVEWAYS REQUIRE A MINIMUM DEPTH OF 6" WITH REBAR. SEE CITY OF SHELTON STD. DRIVEWAY DETAIL T-04.
3. BROOM FINISH TO BE PERPENDICULAR TO ROADWAY IN SIDEWALK SECTIONS.
4. CONCRETE SHALL BE COMMERCIAL CONCRETE 3,000 PSI HIGH EARLY STRENGTH.

"Building A Stronger Community TOGETHER"

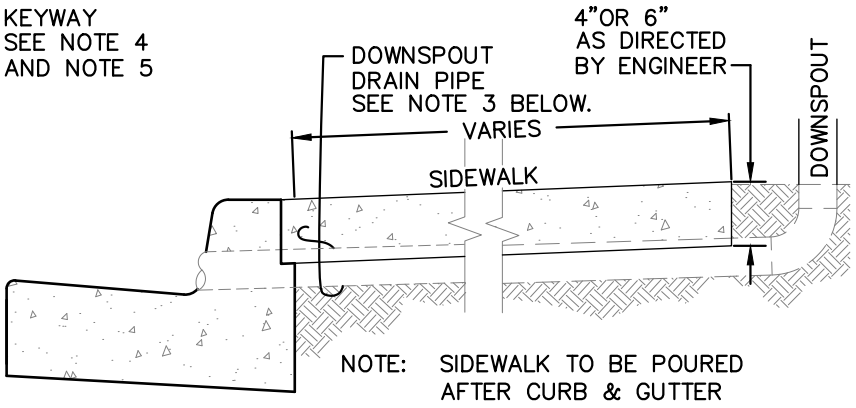
SIDEWALK DETAILS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-02



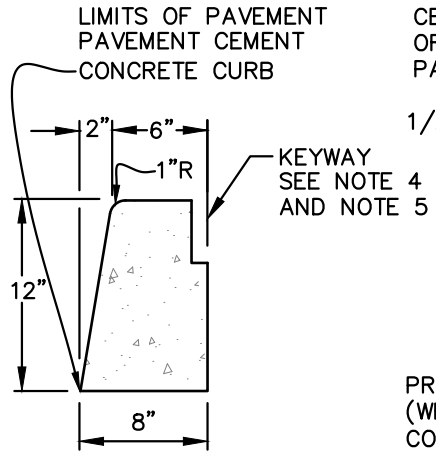
TYPE 1
CURB & GUTTER



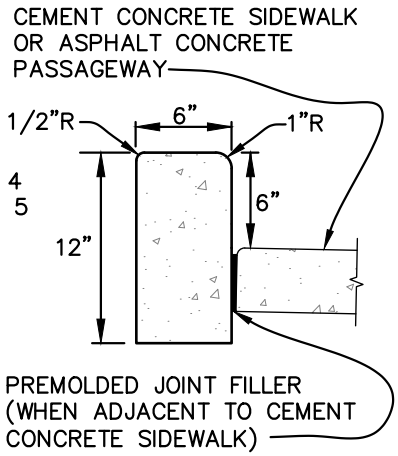
DOWNTOWN AREA ONLY
(as approved by City Engineering Dept.)

TYPE 1
CEMENT CONCRETE CURB & GUTTER

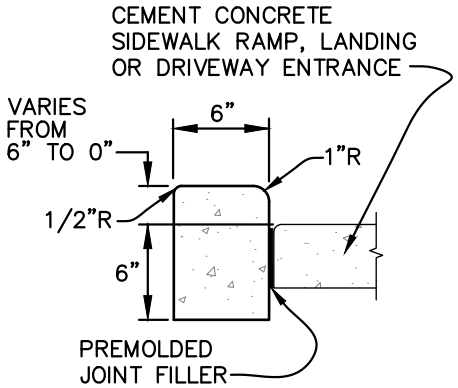
NOT TO SCALE



TYPE 2
TRAFFIC CURB



TYPE 3
PEDESTRIAN CURB



TYPE 3
PEDESTRIAN CURB
AT SIDEWALK RAMPS & LANDINGS
AND DRIVEWAY ENTRANCES

TYPE 2 AND TYPE 3
CEMENT CONCRETE CURBS

NOT TO SCALE

NOTES:

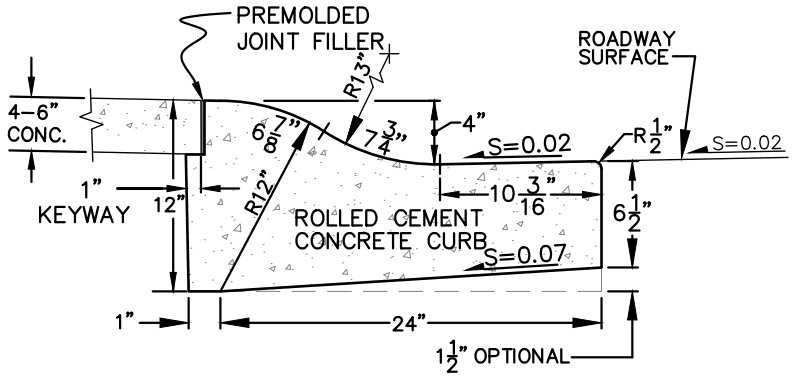
1. 1/2" EXPANSION JOINTS SHALL BE INSTALLED AT 15' C/C, OR AS DIRECTED BY THE ENGINEER, AND SHALL EXTEND TO THE BOTTOM OF THE CONCRETE.
2. ALL CURB, GUTTER & SIDEWALKS SHALL BE COMMERCIAL CONCRETE PER CURRENT WSDOT STD. SPECIFICATIONS IN SECTION 6–02.3(2)B.
3. DOWN SPOUT DRAINS SHALL BE PLACED PER WSDOT STD. PLANS & AS DIRECTED BY THE ENGINEER.
4. INSTALL KEYWAY, 1" x 4" (4" OR THICKNESS OF SIDEWALK/ DRIVEWAY), WHEN SIDEWALK ABUTS A TYPE 1 OR TYPE 2 CURB.
5. INSTALL EXPANSION JOINT MATERIAL BETWEEN IN KEYWAY DRIVEWAY AND/ OR SIDEWALK.

CITY of SHELTON WASHINGTON
"Building A Stronger Community TOGETHER"

CEMENT CONCRETE CURBS AND CURB & GUTTER

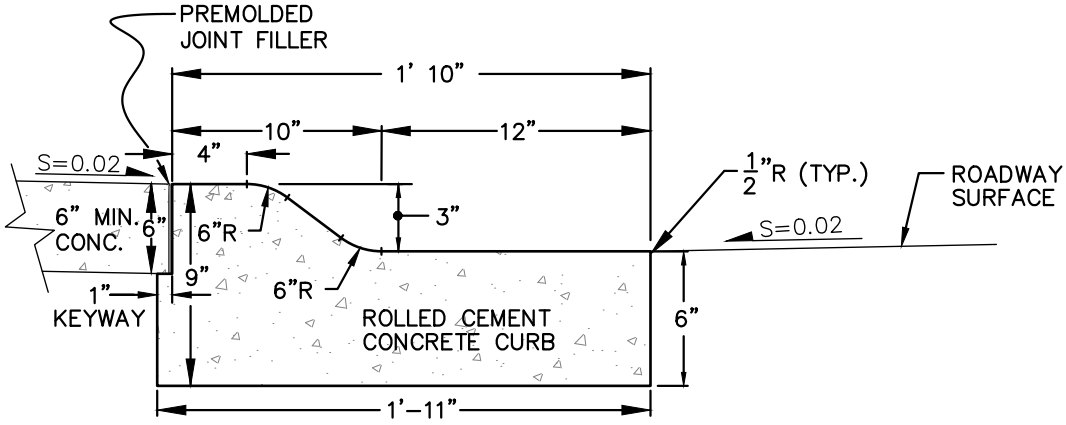
APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-03



ROLLED EDGE CONC. CURB & GUTTER w/ KEYWAY

NTS



ROLLED EDGE CONC. CURB & GUTTER
FOR ROUNDABOUT w/ KEYWAY

NTS

NOTE:

WHERE CURB DOES NOT ABUT
SIDEWALK NO KEYWAY IS NECESSARY.

"Building A Stronger Community TOGETHER"

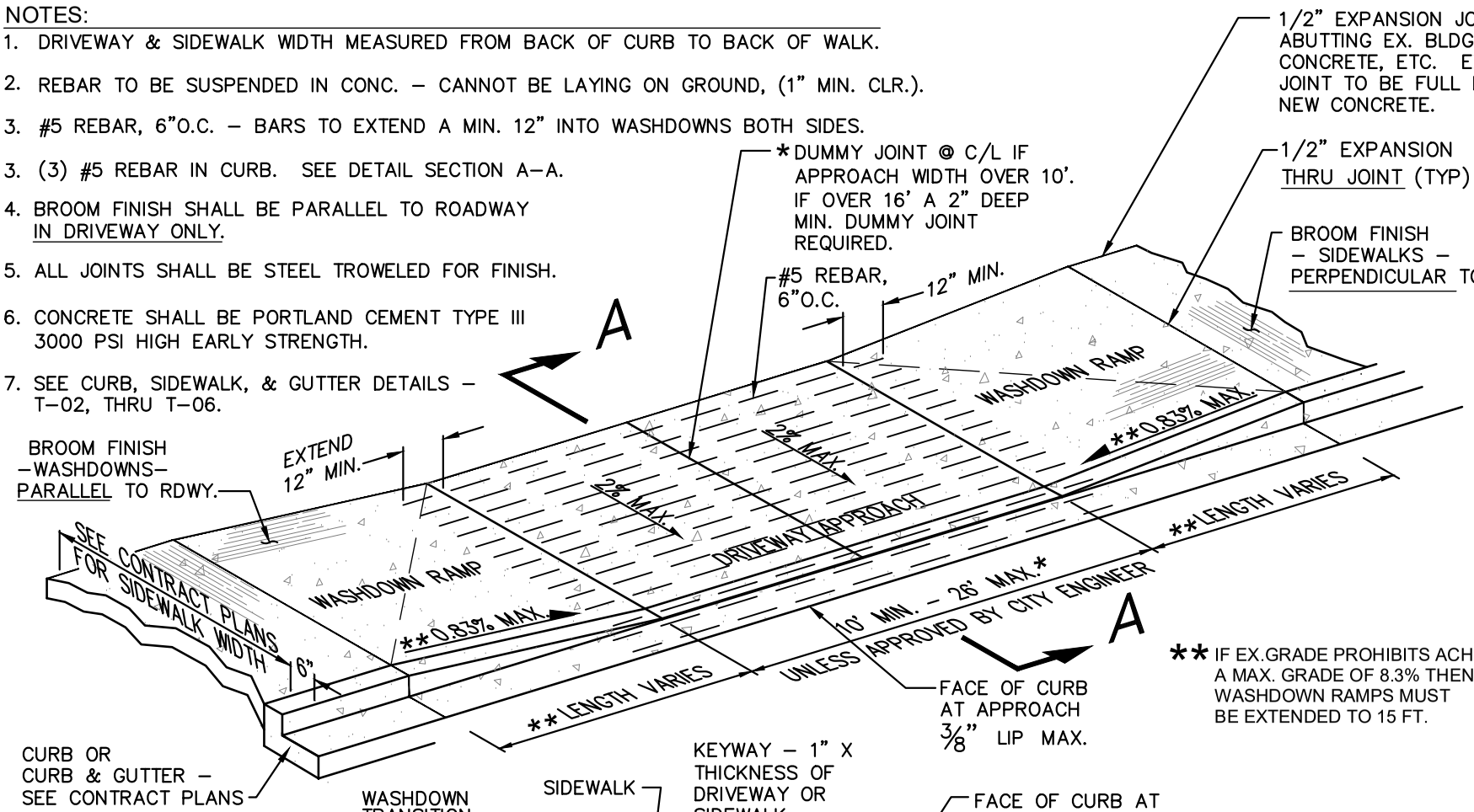
CONCRETE CURB & GUTTER DETAILS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-03A

NOTES:

1. DRIVEWAY & SIDEWALK WIDTH MEASURED FROM BACK OF CURB TO BACK OF WALK.
2. REBAR TO BE SUSPENDED IN CONC. – CANNOT BE LAYING ON GROUND, (1" MIN. CLR.).
3. #5 REBAR, 6"O.C. – BARS TO EXTEND A MIN. 12" INTO WASHDOWNS BOTH SIDES.
3. (3) #5 REBAR IN CURB. SEE DETAIL SECTION A–A.
4. BROOM FINISH SHALL BE PARALLEL TO ROADWAY IN DRIVEWAY ONLY.
5. ALL JOINTS SHALL BE STEEL TROWELED FOR FINISH.
6. CONCRETE SHALL BE PORTLAND CEMENT TYPE III 3000 PSI HIGH EARLY STRENGTH.
7. SEE CURB, SIDEWALK, & GUTTER DETAILS – T–02, THRU T–06.



** IF EX.GRADE PROHIBITS ACHIEVING A MAX. GRADE OF 8.3% THEN WASHDOWN RAMPS MUST BE EXTENDED TO 15 FT.

DETAIL SECTION A-A

NTS

"Building A Stronger Community TOGETHER"

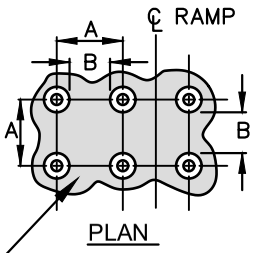
CEMENT CONCRETE DRIVEWAY

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-04

	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/8"	1 7/16"

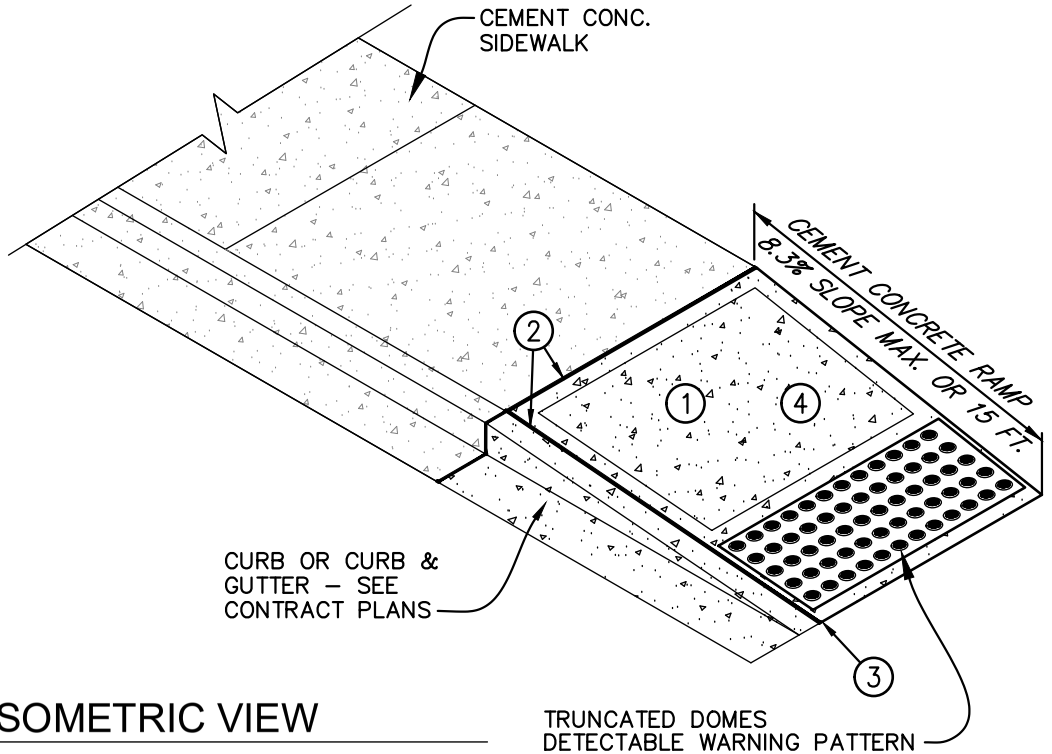
DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW, IN COMPLIANCE WITH STD. SPEC. 8-14.3(5)



TRUNCATED DOMES (SEE NOTE)

NOTE: DETECTABLE WARNING PATTERNS MAY BE CREATED BY ANY METHOD THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING SHOWN.

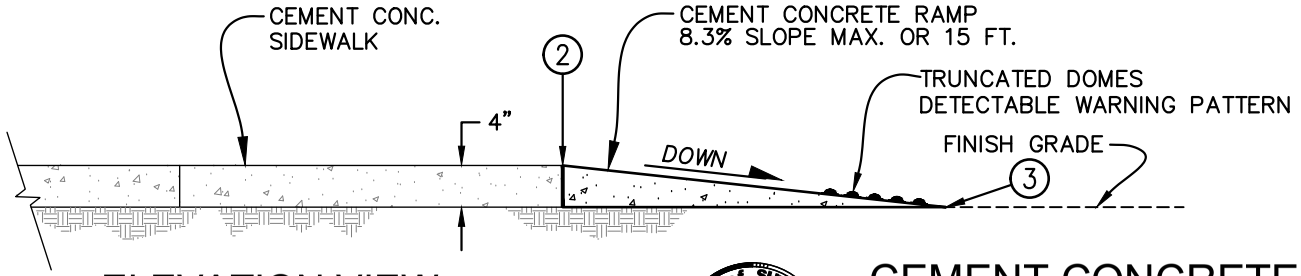
DETECTABLE WARNING PATTERN DETAIL



ISOMETRIC VIEW

NOTES:

1. CURB RAMPS SHALL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT BOTTOM OF RAMP.
2. 3/8" EXPANSION JOINT.
3. FLUSH AT GUTTER. NO EXPANSION JOINT MATERIAL.
4. IF EX. SLOPE PROHIBITS ACHIEVING A MAX. GRADE OF 8.3% THEN RAMP MUST BE EXTENDED TO 15 FT.



ELEVATION VIEW

"Building A Stronger Community TOGETHER"

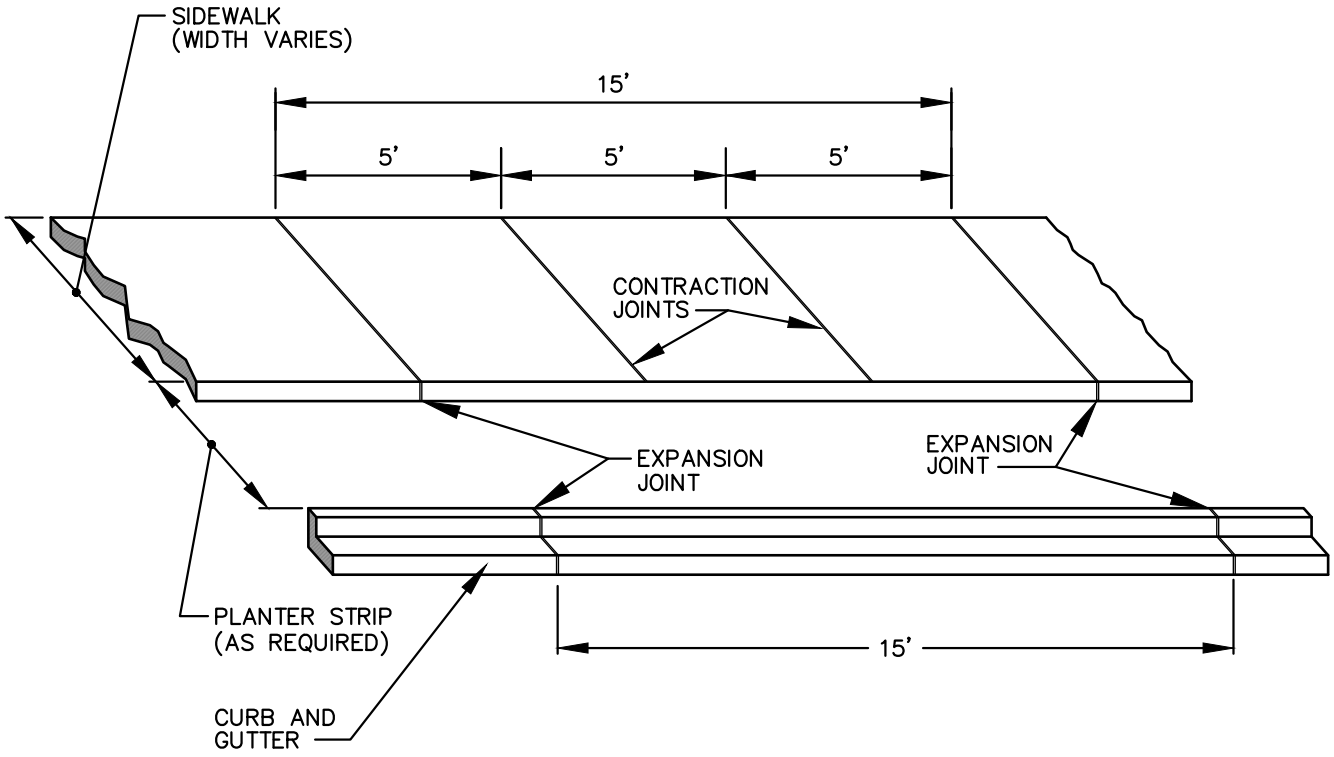
CEMENT CONCRETE RAMP

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-05

SPECIAL NOTE:

INSPECTION OF FORMS AND SUB GRADE BY CITY INSPECTOR IS REQUIRED BEFORE POURING CONCRETE.



GENERAL NOTES:

1. EXPANSION JOINT MATERIAL TO BE 1/2" THICK PRE MOLDED JOINT FILLER FULL THICKNESS OF CONCRETE.

2. SCORED MARKS (CONTRACTION JOINTS) SHALL BE ±1/8" WIDE BY ±1/4" DEEP. FOR ALL SIDEWALKS OVER 8' IN WIDTH MAKE A LONGITUDINAL (PARALLEL W/ CURB) SCORE MARK ALONG CENTER OF SIDEWALK.

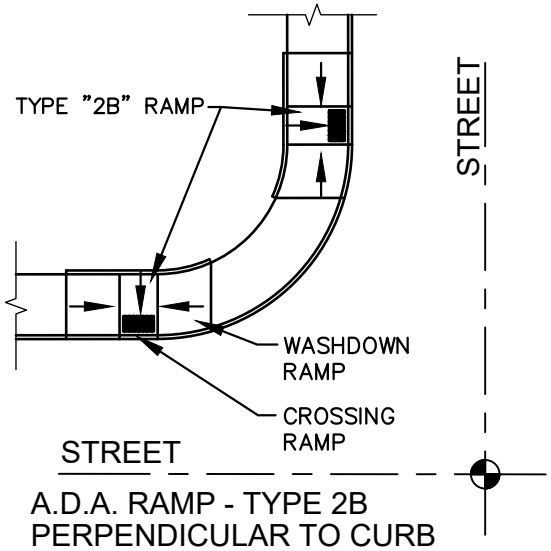
3. EXPANSION JOINTS SHALL BE INSTALLED IN CURB AND GUTTER, AND IN SIDEWALK AT PC AND PT AT ALL CURB RETURNS. EXPANSION JOINTS SHALL BE PLACED IN SIDEWALK AT SAME LOCATIONS AS THOSE IN CURB AND GUTTER WHEN SIDEWALK IS CONTIGUOUS TO CURB AND GUTTER, UNLESS OTHERWISE DIRECTED BY ENGINEER. CONTRACTION JOINTS IN SIDEWALK ONLY.

"Building A Stronger Community TOGETHER"

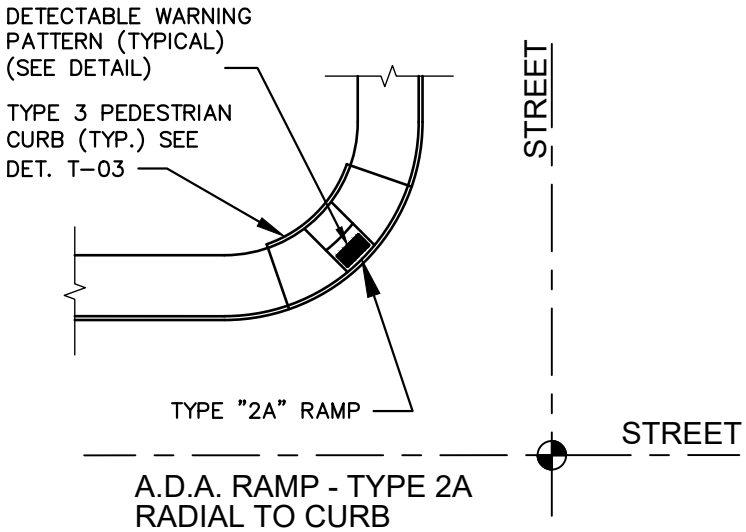
SIDEWALK EXPANSION AND CONTRACTION JOINT SPACING

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-06

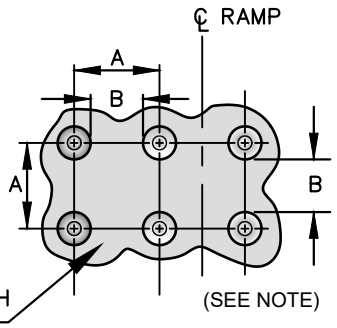


A.D.A. RAMP - TYPE 2B
PERPENDICULAR TO CURB

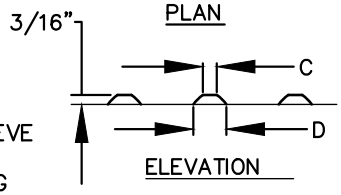


A.D.A. RAMP - TYPE 2A
RADIAL TO CURB

	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/8"	1 7/16"



DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW, IN COMPLIANCE WITH STD. SPEC. 8-14.3(5)



PLAN

ELEVATION

NOTE: DETECTABLE WARNING PATTERNS MAY BE CREATED BY ANY METHOD THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING *SHOWN.*

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

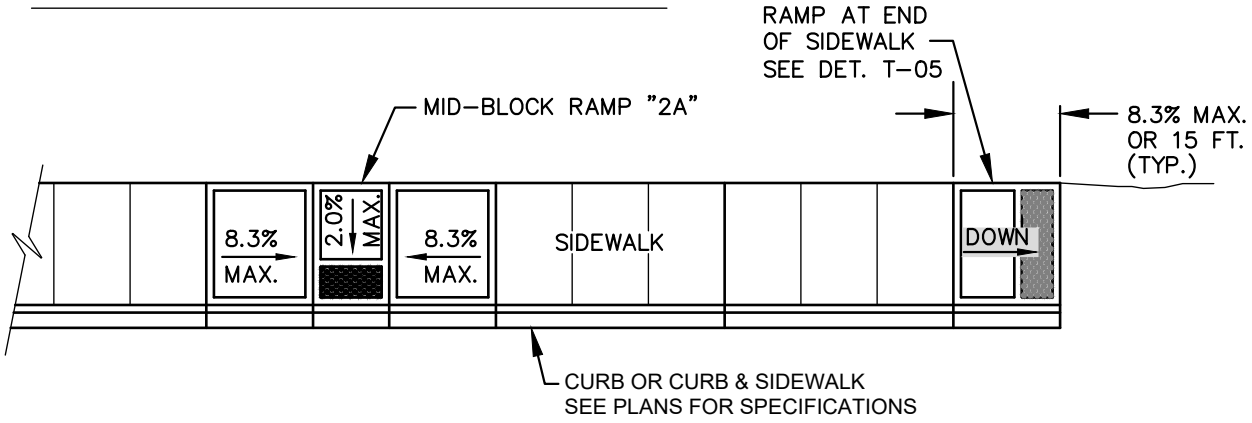
NOTES:

1.) THE TYPE "2A" RAMP IS USED TO PROVIDE ACCESS TO TWO CROSSWALKS ONLY WHEN IT IS NOT FEASIBLE TO PROVIDE A SEPARATE RAMP FOR EACH CROSSWALK.

2.) WASHDOWN RAMP GRADE IS 8.3% MAX. OR 15' IN LENGTH. CROSSING RAMP GRADE IS 2.0% MAX.

3.) IN SITUATIONS WHERE RAMP STYLE 2A OR 2B IS NOT FEASIBLE, CONTACT CITY FOR ALTERNATE CONFIGURATIONS.

4.) SEE C.O. SHELTON STD. DETAILS T-02 THRU T-11 FOR ADDITIONAL RAMP INFORMATION.

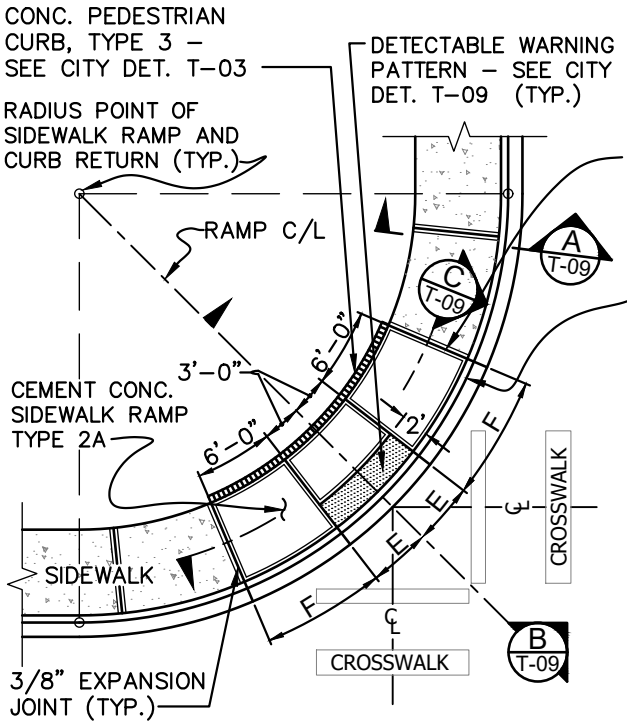


"Building A Stronger Community TOGETHER"

TYPES OF A.D.A. SIDEWALK RAMPS

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

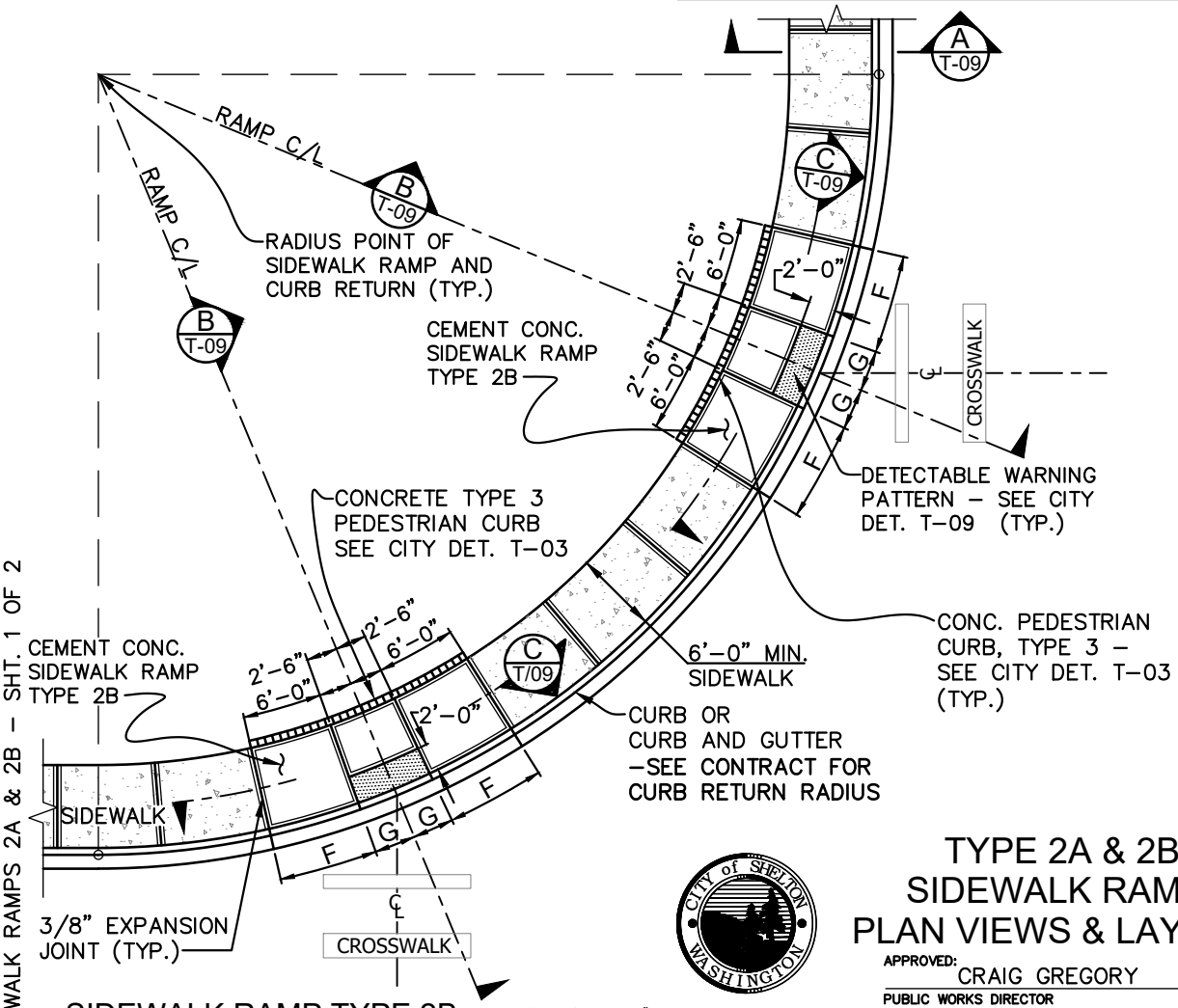
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-07



SIDEWALK RAMP TYPE 2A (NTS)

PLAN VIEW

RADIUS (AT CURB FACE)	E	F	G
20 FEET	4'–5¼"	8'–10½"	3'–8½"
30 FEET	3'–10"	7'–8"	3'–2¼"
40 FEET	3'–7"	7'–2"	3'–0"
50 FEET	3'–5½"	6'–10¾"	2'–10½"
60 FEET	3'–4½"	6'–8¾"	2'–9½"
70 FEET	3'–3¾"	6'–7½"	2'–9"
80 FEET	3'–3¼"	6'–6½"	2'–8½"
90 FEET	3'–2¾"	6'–5½"	2'–8¼"
100 FEET	3'–2½"	6'–5"	2'–8"



SIDEWALK RAMP TYPE 2B (NTS)

PLAN VIEW

SIDEWALK RAMPS 2A & 2B – SHT. 1 OF 2

"Building A Stronger Community TOGETHER"

TYPE 2A & 2B SIDEWALK RAMPS PLAN VIEWS & LAYOUTS

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-08

NOTES:

1.) THE TYPE 2A RAMP IS USED TO PROVIDE ACCESS TO TWO CROSSWALKS ONLY WHEN IT IS NOT FEASIBLE TO PROVIDE A SEPARATE RAMP FOR EACH CROSSWALK.

2.) THE TYPE 2B RAMP LAYOUT REQUIRES TWO (2) OF THIS BID ITEM: "CEMENT CONC. SIDEWALK TYPE 2B". THE BID ITEM DOES NOT INCLUDE THE ADJACENT CURB (OR CURB & GUTTER), THE SIDEWALK BETWEEN RAMPS, OR THE CEMENT CONC. PEDESTRIAN CURB.

3.) RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

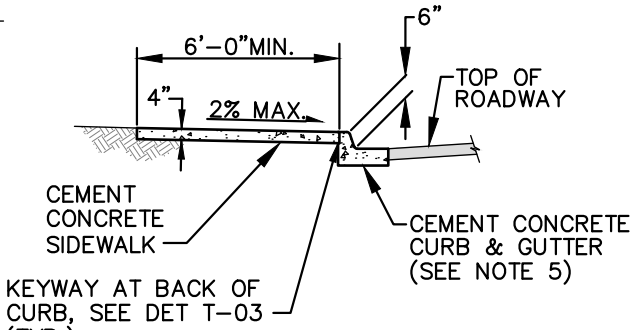
4.) AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

5.) CURB & GUTTER IS SHOWN, SEE THE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE CITY DETAIL T-03 & T-03A FOR CURB DETAILS.

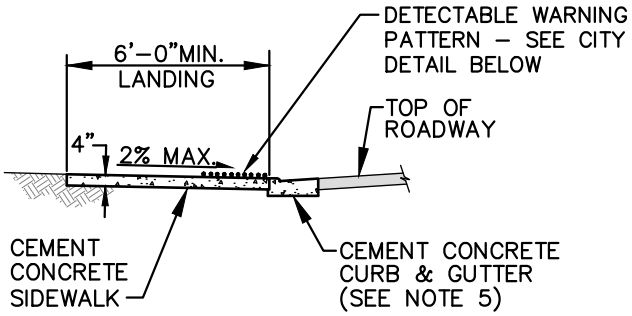
6.) SEE CITY DETAILS T-02 & T-06 FOR SIDEWALK JOINT PLACEMENT & DETAILS.

7.) CURB RAMPS WILL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT END OF RAMP ADJACENT TO ROADWAY.

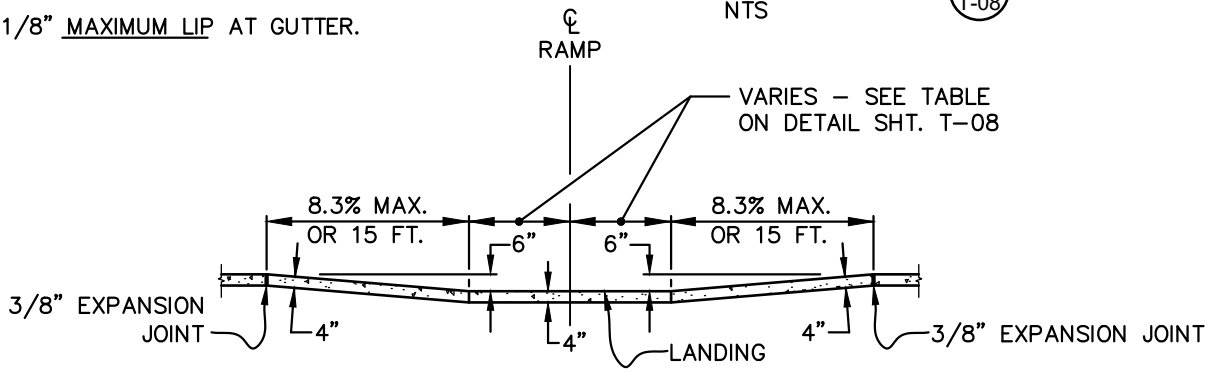
8.) 1/8" MAXIMUM LIP AT GUTTER.



SECTION 'A' (A / T-08)
NTS

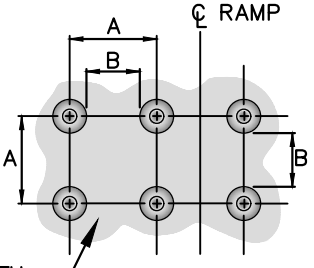


SECTION 'B' (B / T-08)
NTS



SECTION 'C' (C / T-08)
NTS

	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/8"	1 7/16"

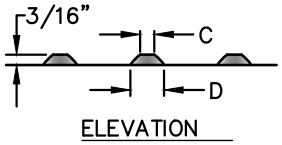


DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW, IN COMPLIANCE WITH STD. SPEC. 8-14.3(5)

PLAN

DETECTABLE WARNING PATTERN
(NTS)

NOTE: DETECTABLE WARNING PATTERNS MAY BE CREATED BY ANY METHOD THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING SHOWN.



ELEVATION

TRUNCATED DOMES (SEE NOTE)
DETECTABLE WARNING PATTERN DETAIL

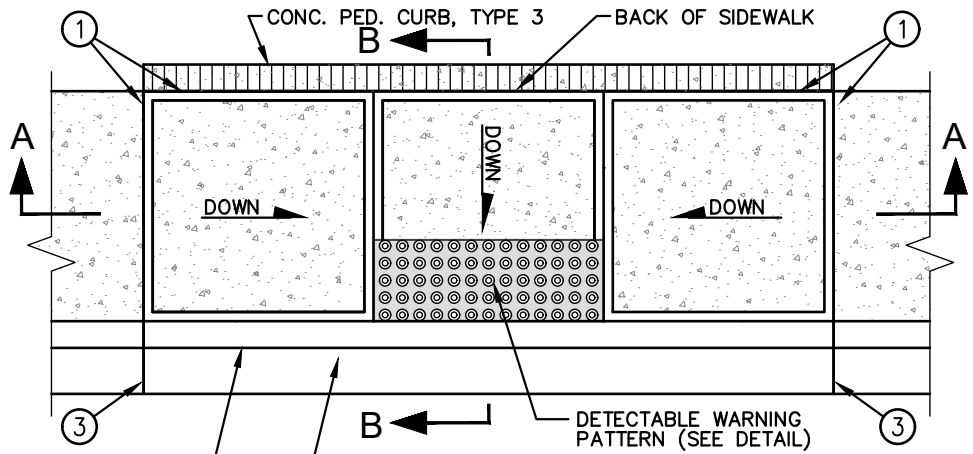
TUNCATED DOMES
(NTS)

TYPES 2A & 2B RAMP SECTIONS: NOTES AND DETAILS

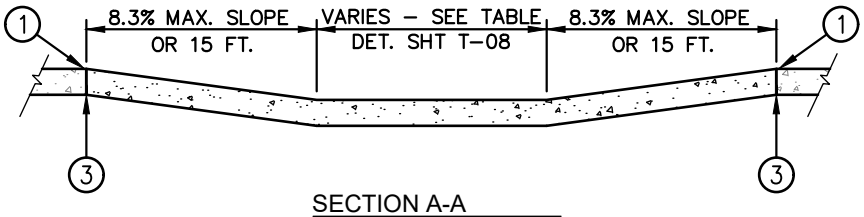
"Building A Stronger Community TOGETHER"

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

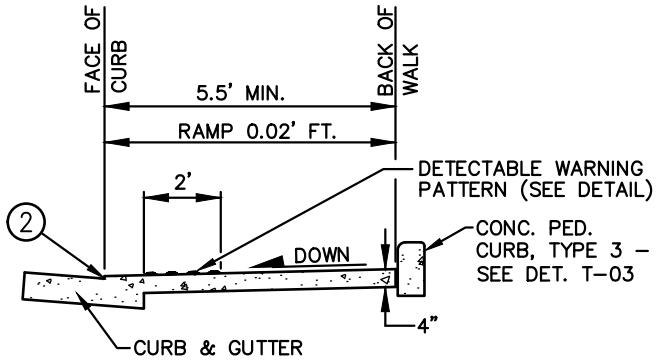
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-09



PLAN VIEW

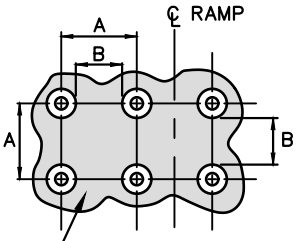


SECTION A-A



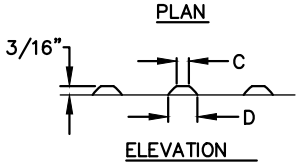
SECTION B-B

	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/8"	1 7/16"



DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW, IN COMPLIANCE WITH STD. SPEC. 8-14.3(5)

NOTE: DETECTABLE WARNING PATTERNS MAY BE CREATED BY ANY METHOD THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING SHOWN.



TRUNCATED DOMES (SEE NOTE)

DETECTABLE WARNING PATTERN DETAIL

NOTES:

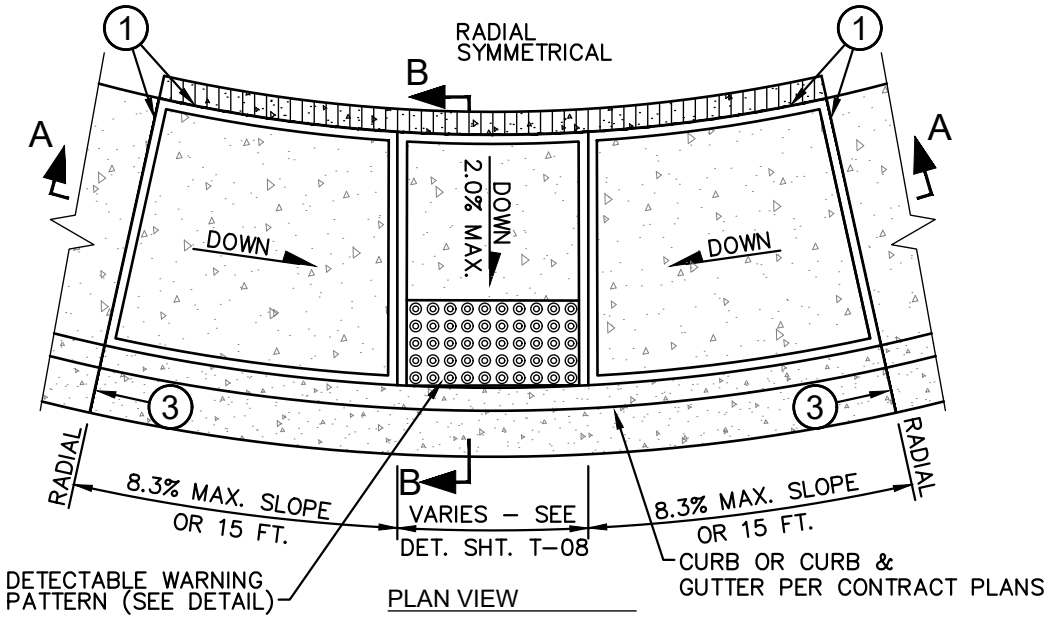
1. 3/8" EXPANSION JOINT.
2. FLUSH AT GUTTER.
3. CURB RAMPS SHALL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT END OF RAMP ADJACENT TO ROADWAY.

"Building A Stronger Community TOGETHER"

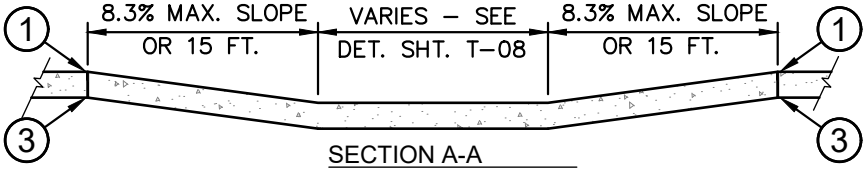
TYPE 2A & 2B RAMPS PERPENDICULAR TO CURB

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-10



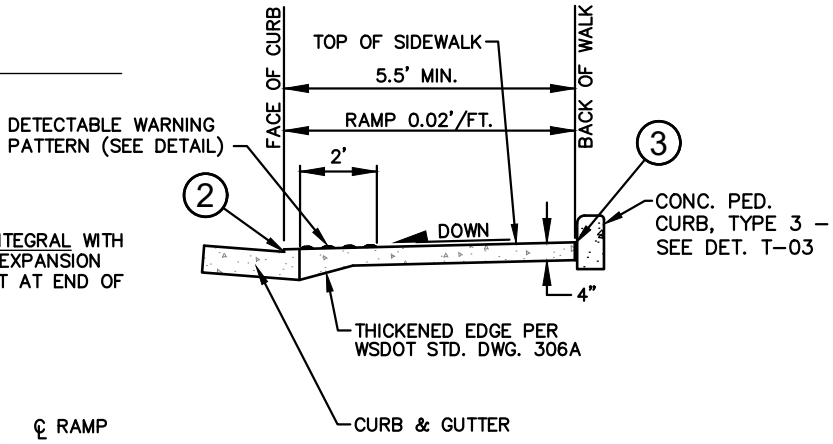
PLAN VIEW



SECTION A-A

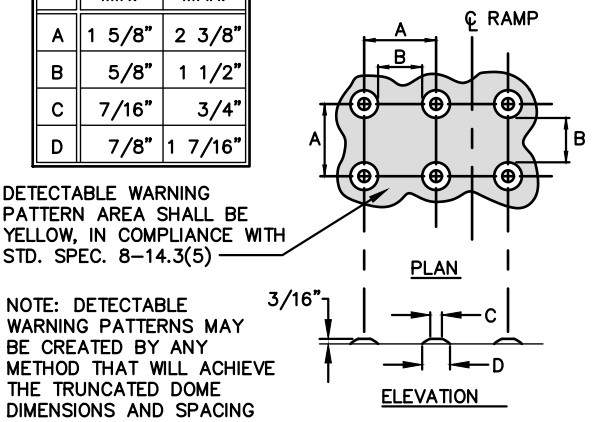
NOTES:

1. 3/8" EXPANSION JOINT.
2. FLUSH AT GUTTER.
3. CURB RAMPS SHALL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT END OF RAMP ADJACENT TO ROADWAY.



SECTION B-B

	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7/16"	3/4"
D	7/8"	1 7/16"



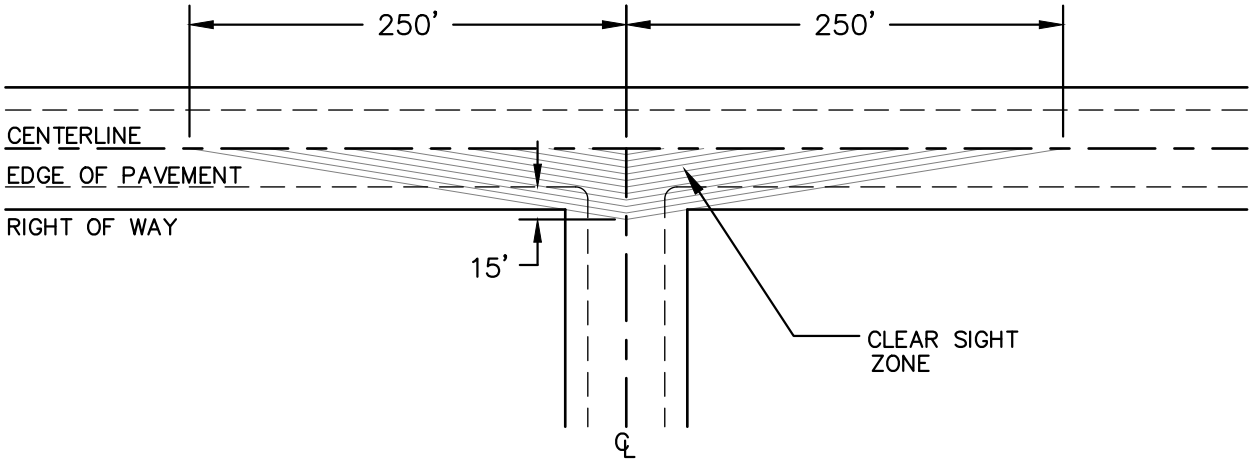
DETECTABLE WARNING PATTERN DETAIL

"Building A Stronger Community TOGETHER"

TYPE 2A & 2B RAMPS RADIAL TO CURB

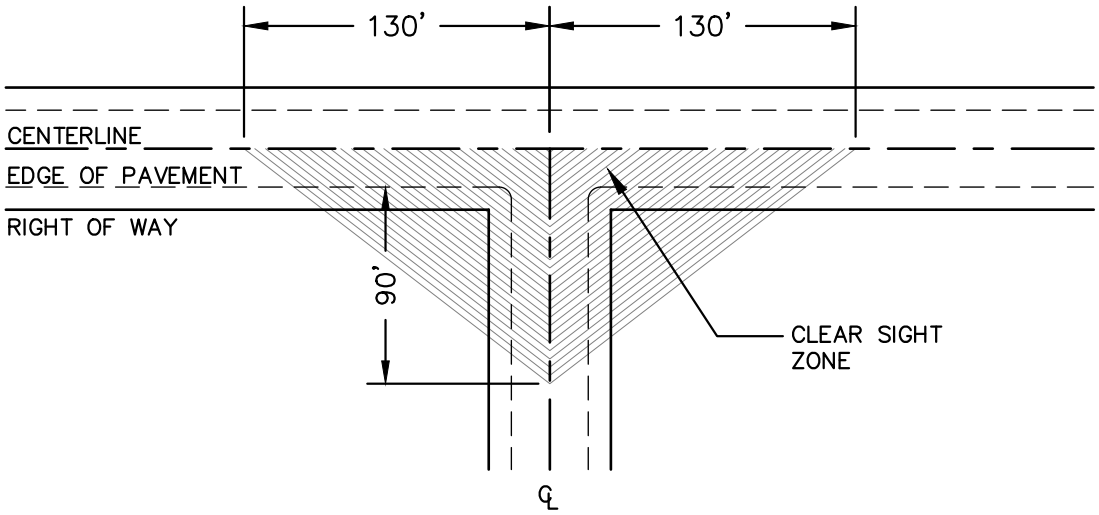
APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-11



STOP OR YIELD CONTROLLED INTERSECTIONS

EXAMPLE: MAJOR STREET SPEED LIMIT=25 M.P.H.



UNCONTROLLED INTERSECTIONS

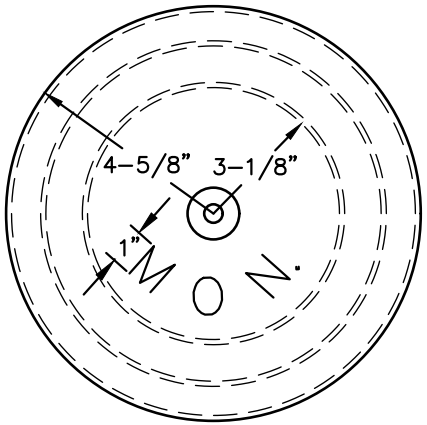
EXAMPLE: MAJOR STREET SPEED LIMIT=30 M.P.H.
MINOR STREET SPEED LIMIT=20 M.P.H.

"Building A Stronger Community TOGETHER"

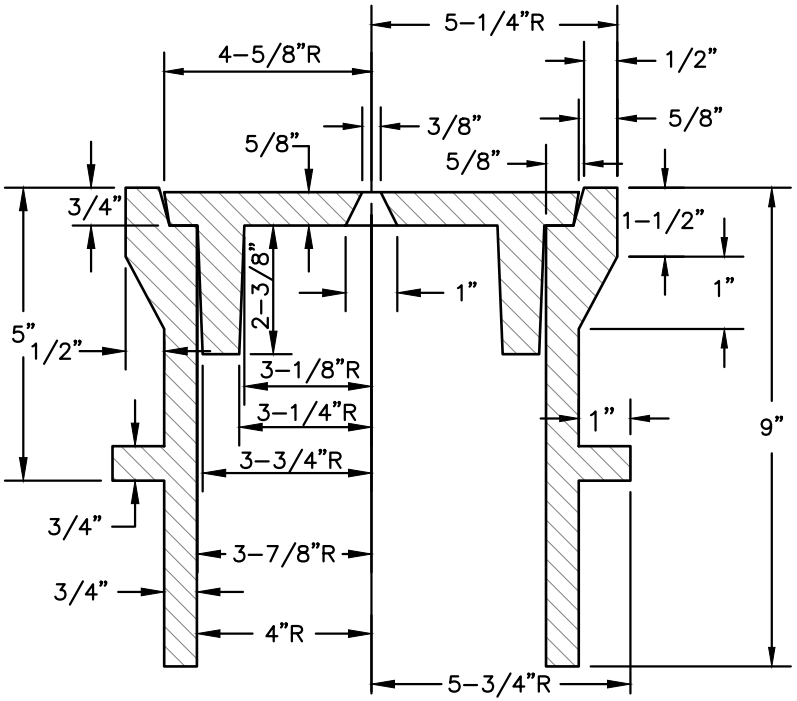
SIGHT OBSTRUCTION DETAILS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-12



COVER
PLAN VIEW



SECTION VIEW

RISER SIZES			
DIM.	1–1/2"	2"	3"
A	10–1/2"	10–1/2"	10–1/2"
B	9–1/2"	9–1/2"	9–1/2"
C	8"	8"	8"
D	9"	9"	9"
E	3/4"	3/4"	3/4"
F	1–1/2"	2"	3"
G	2–1/4"	2–3/4"	3–3/4"

NOTES:

DIMENSIONS MAY VARY ACCORDING TO MANUFACTURER.

BASE TO BE PLACED ON WELL COMPACTED FOUNDATION.

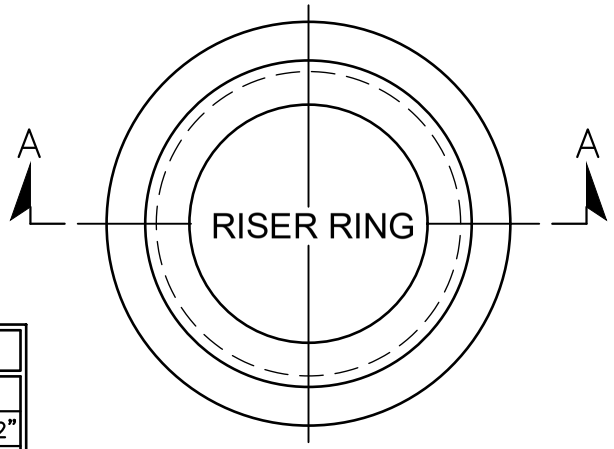
MONUMENT CASE TO BE INSTALLED BY CONTRACTOR.

SEE DET T–15 FOR MONUMENT CASE INSTALLATION.

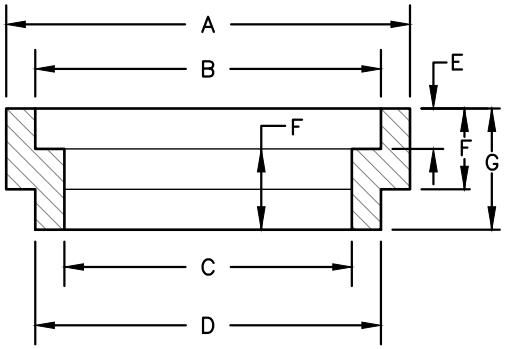
SEE DET T–14 FOR POURED IN PLACE CONCRETE MONUMENT.

APPROXIMATE WEIGHTS:

CASE	60 LBS.
COVER	19 LBS.
TOTAL	79 LBS.



RISER
PLAN VIEW



SECTION A - A

"Building A Stronger Community TOGETHER"

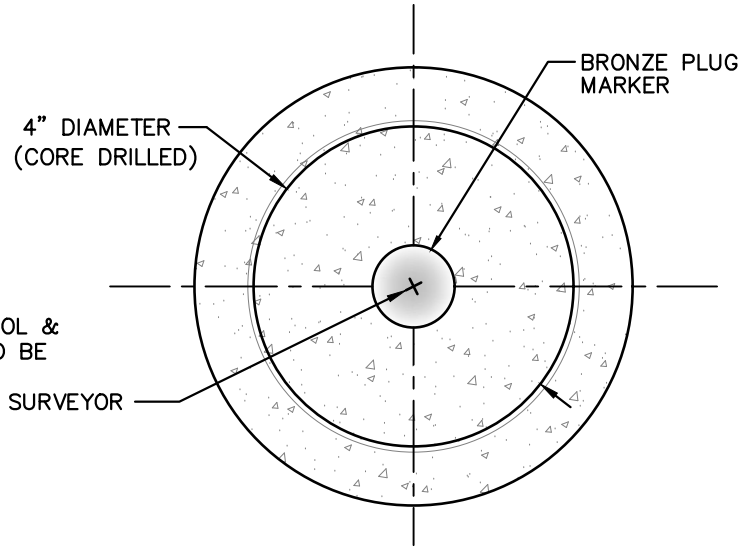
MONUMENT CASE & COVER w/ RISER

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

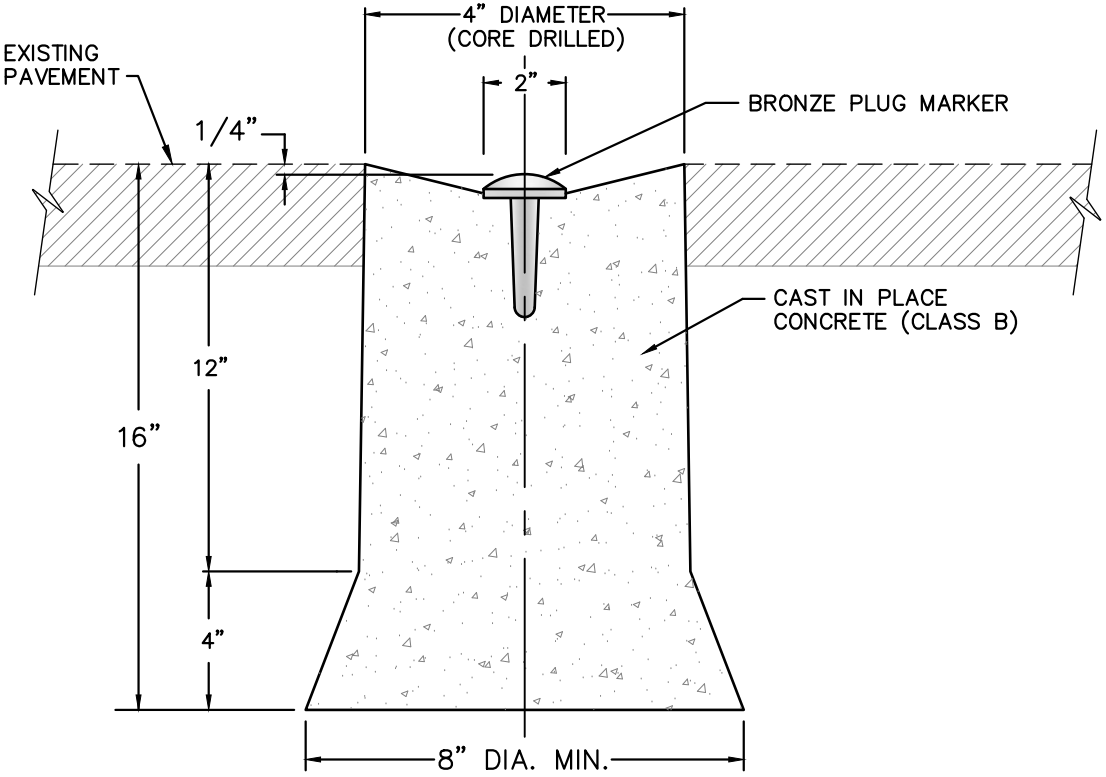
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-13

SPECIAL NOTE

THIS TYPE OF MONUMENT ONLY INSTALLED W/ APPROVAL OF CITY ENGINEER.



PLAN VIEW



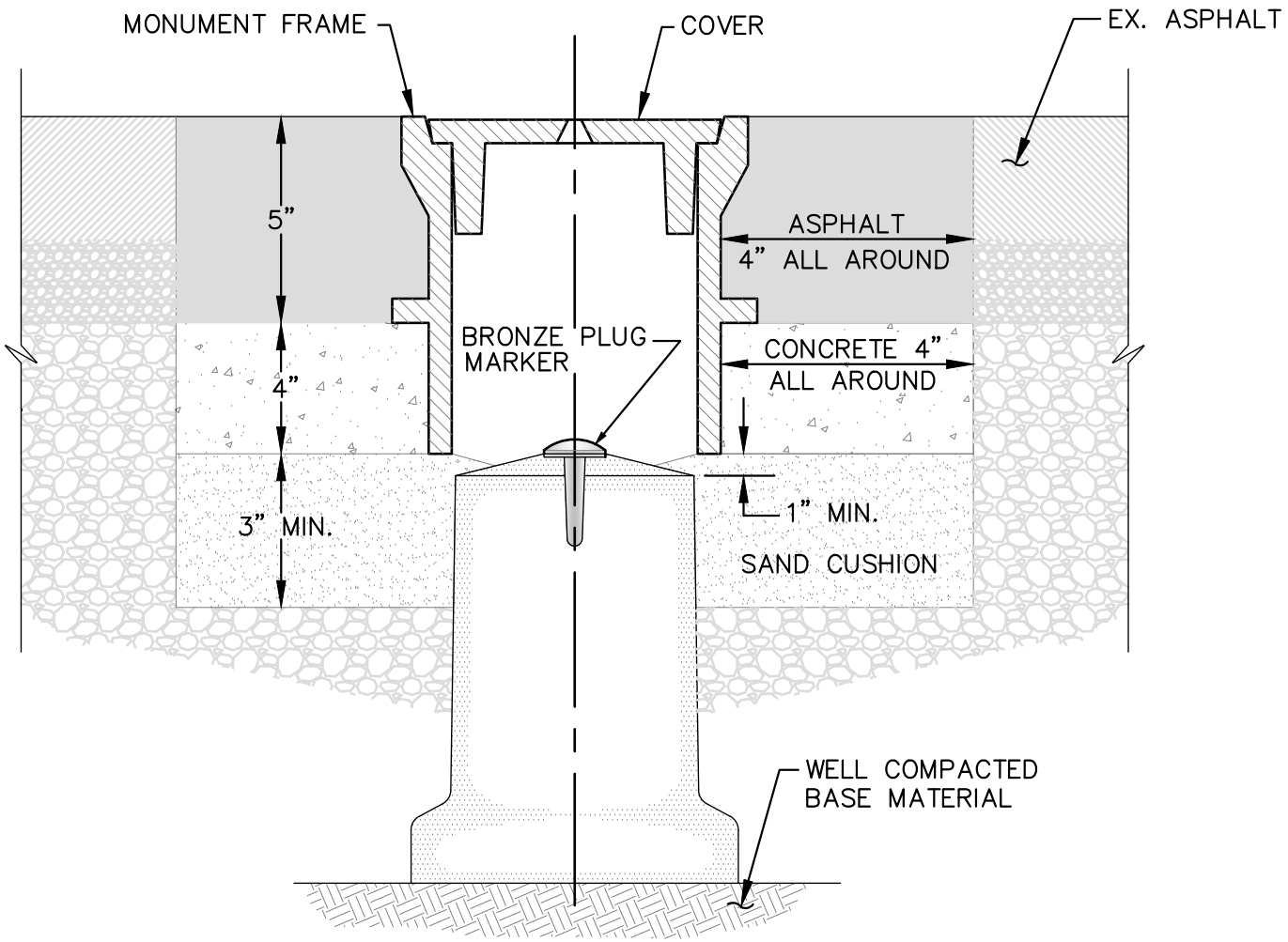
ELEVATION VIEW

"Building A Stronger Community TOGETHER"

POURED IN PLACE CONCRETE MONUMENT

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-14



NOTE:

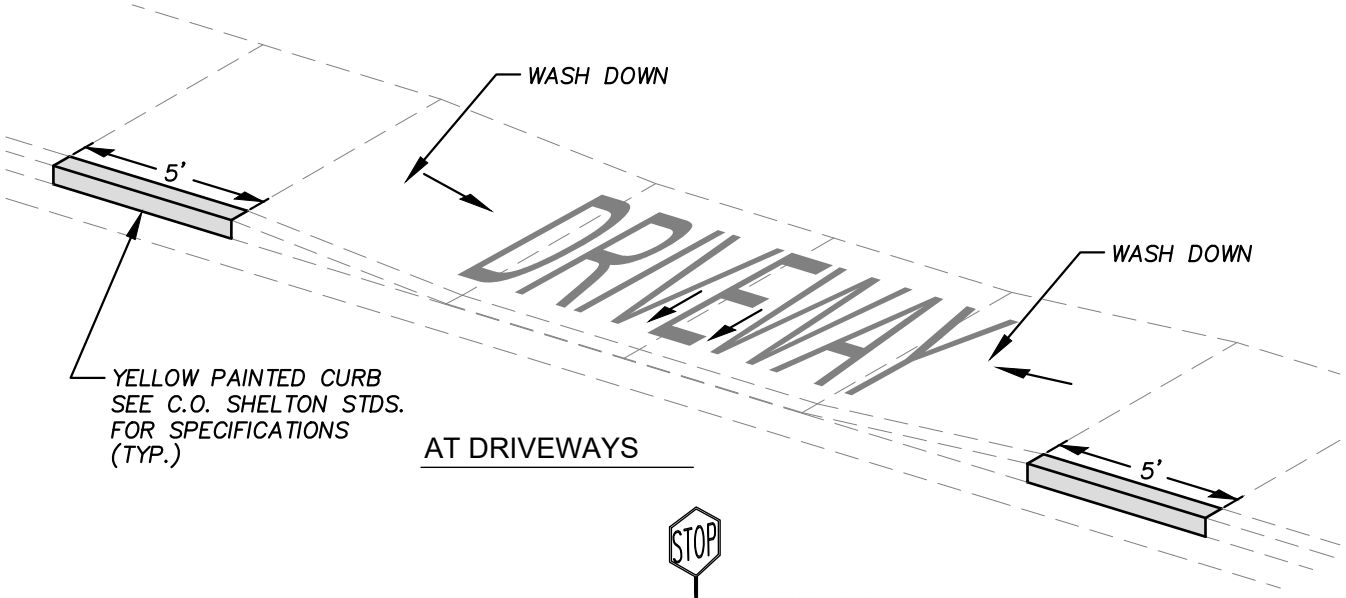
FOR USE PRIMARILY ON ARTERIAL STREETS, STREETS WITH BUS TRAFFIC AND TRUCK ROUTES.

"Building A Stronger Community TOGETHER"

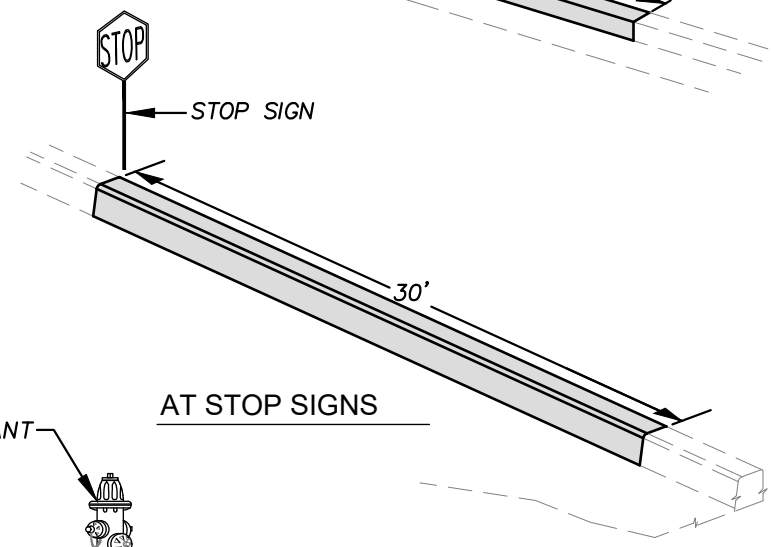
MONUMENT CASE INSTALLATION

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

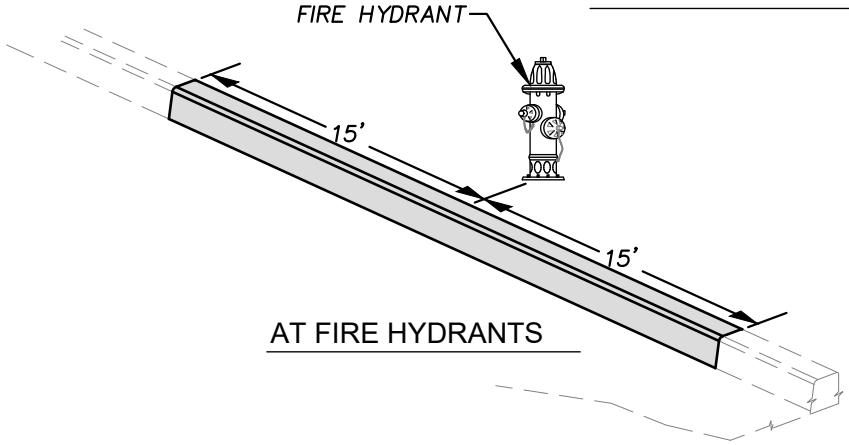
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-15



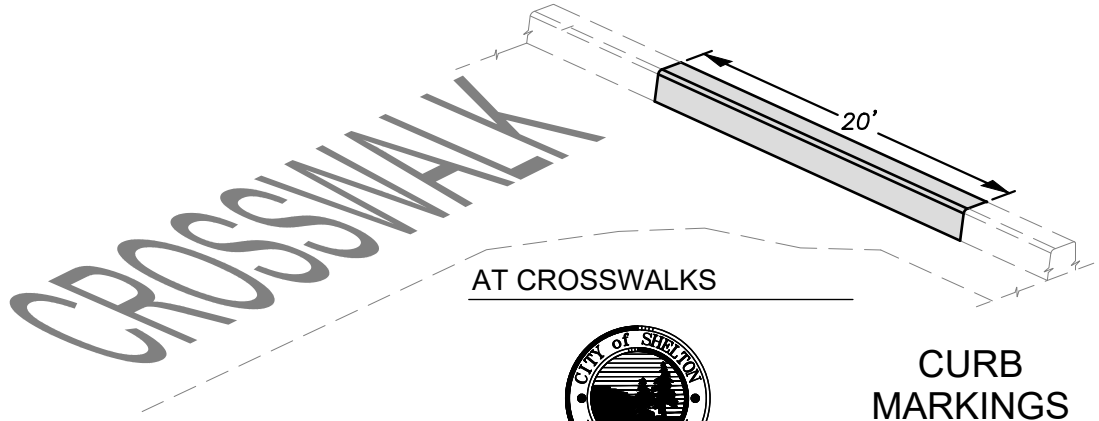
AT DRIVEWAYS



AT STOP SIGNS



AT FIRE HYDRANTS



AT CROSSWALKS

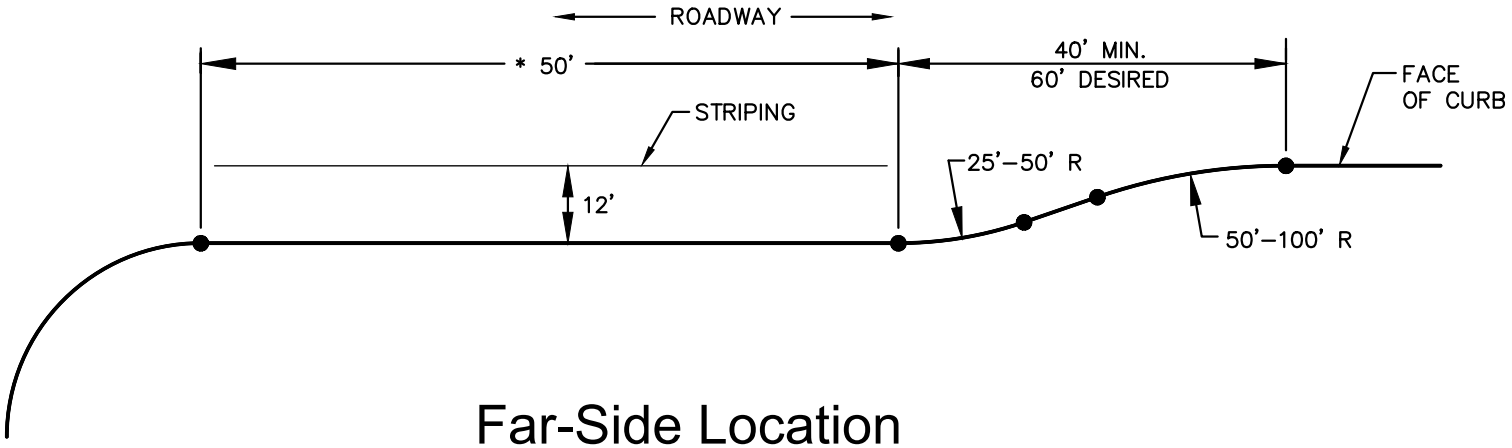
PER RCW 46.61.570

"Building A Stronger Community TOGETHER"

CURB MARKINGS

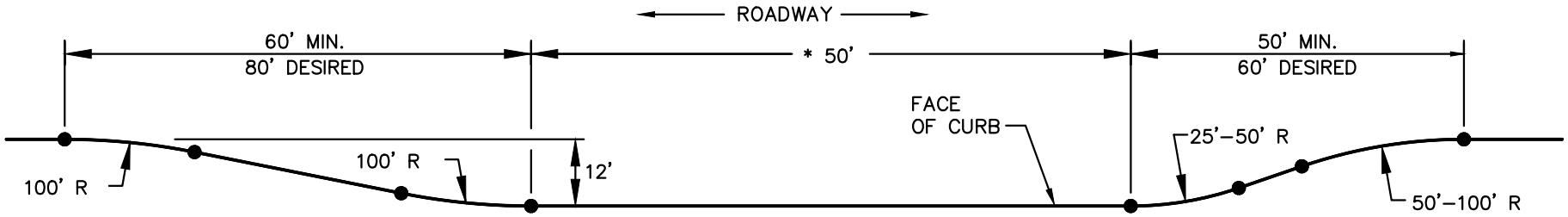
APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-16



Far-Side Location

Plan View



Mid-Block Location

Plan View

NOTES:

1.) * BASED ON A STANDARD 40 FT. LONG BUS
2.) ADD 40 FT. FOR EACH ADDITIONAL BUS
3.) ADD 20 FT. FOR ARTICULATED BUSES

CITY of SHELTON WASHINGTON

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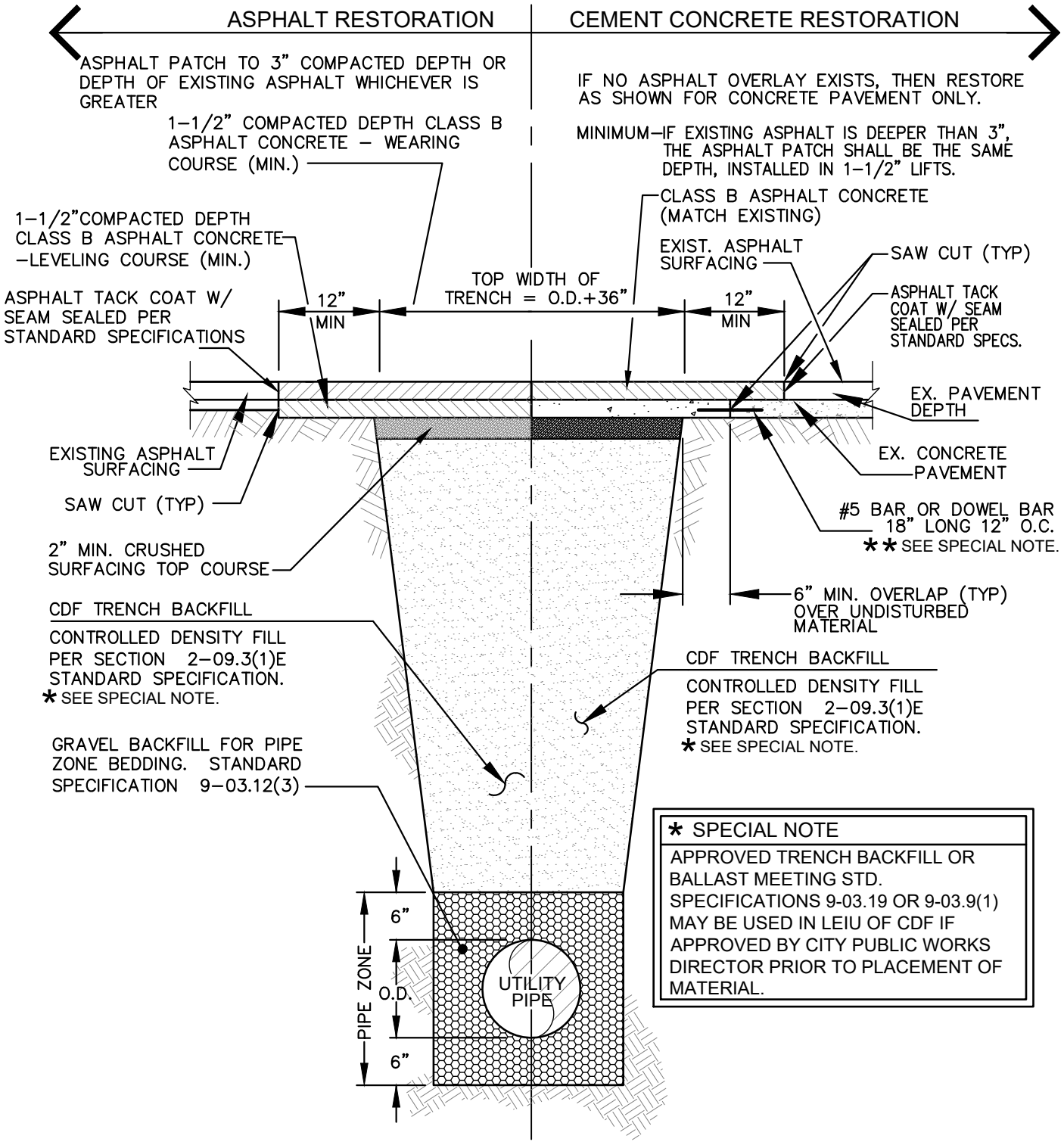
BUS STOP PULLOUT ARTERIAL STREETS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-17



*** SPECIAL NOTE**

APPROVED TRENCH BACKFILL OR BALLAST MEETING STD. SPECIFICATIONS 9-03.19 OR 9-03.9(1) MAY BE USED IN LEIU OF CDF IF APPROVED BY CITY PUBLIC WORKS DIRECTOR PRIOR TO PLACEMENT OF MATERIAL.

**** SPECIAL NOTE**

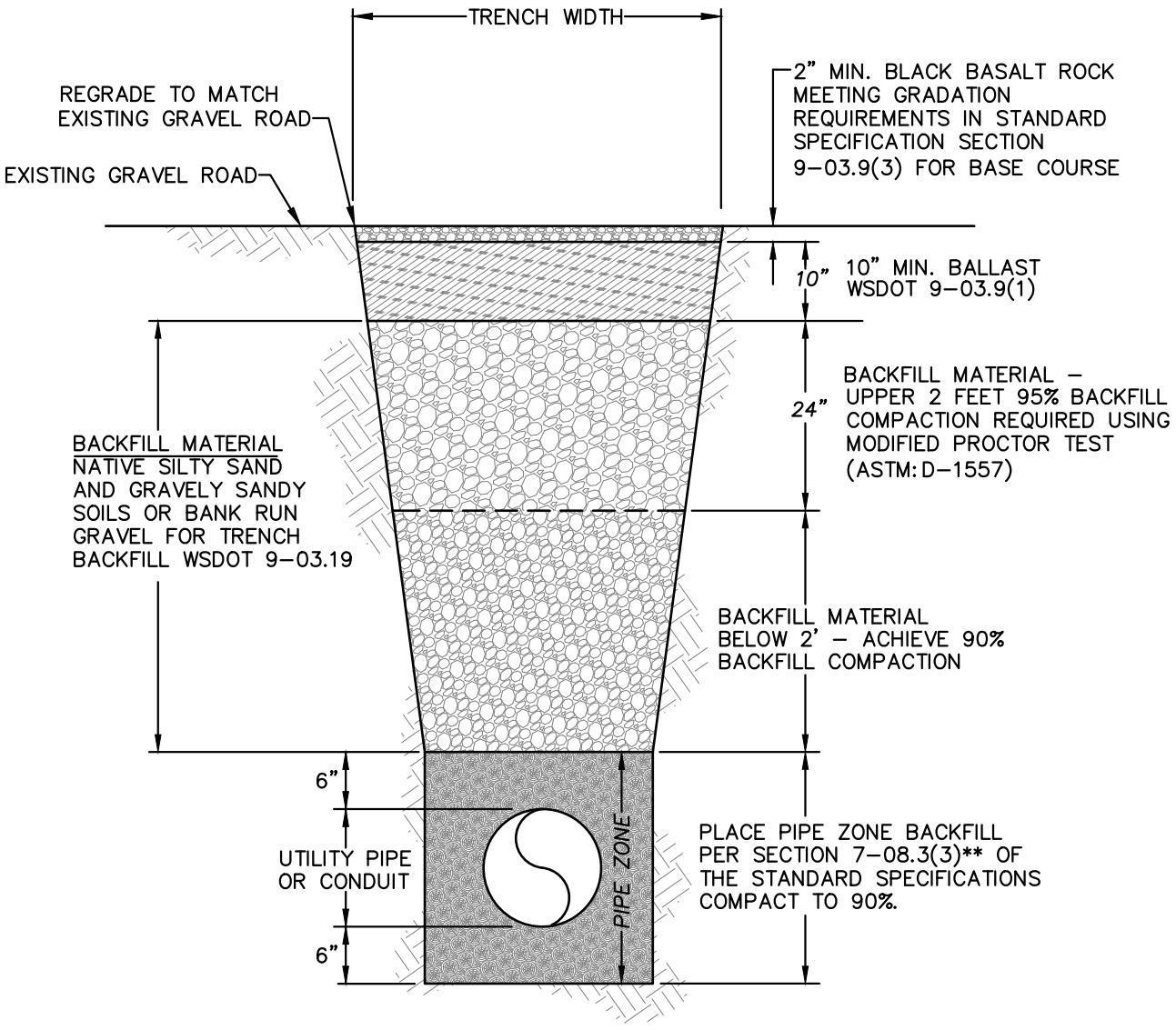
#5 BAR OR DOWEL BAR SHALL BE INSTALLED PER WSDOT STANDARDS PLAN A-40.10-03 IN CONFORMANCE WITH WSDOT STANDARD SPECIFICATION SECTION 5-05.3(10).

"Building A Stronger Community TOGETHER"

PAVEMENT SECTION UTILITY TRENCH RESTORATION

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-18



NOTES:

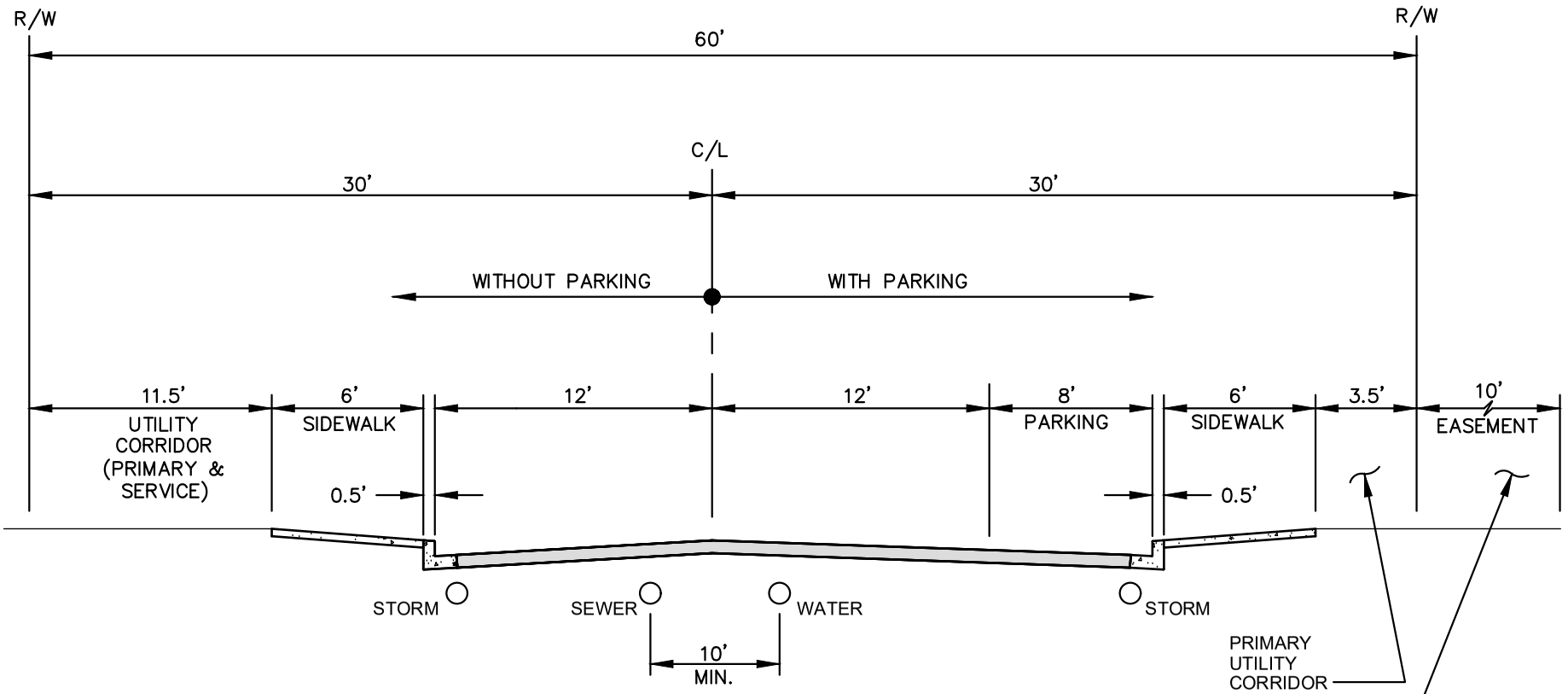
**PIPE ZONE BACKFILL MATERIAL SHALL CONFORM TO STANDARD SPECIFICATION SECTION 9-03.12(3)

"Building A Stronger Community TOGETHER"

GRAVEL SURFACE UTILITY TRENCH RESTORATION

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-19



2 - 12' LANES WITH SIDEWALK (RESIDENTIAL)

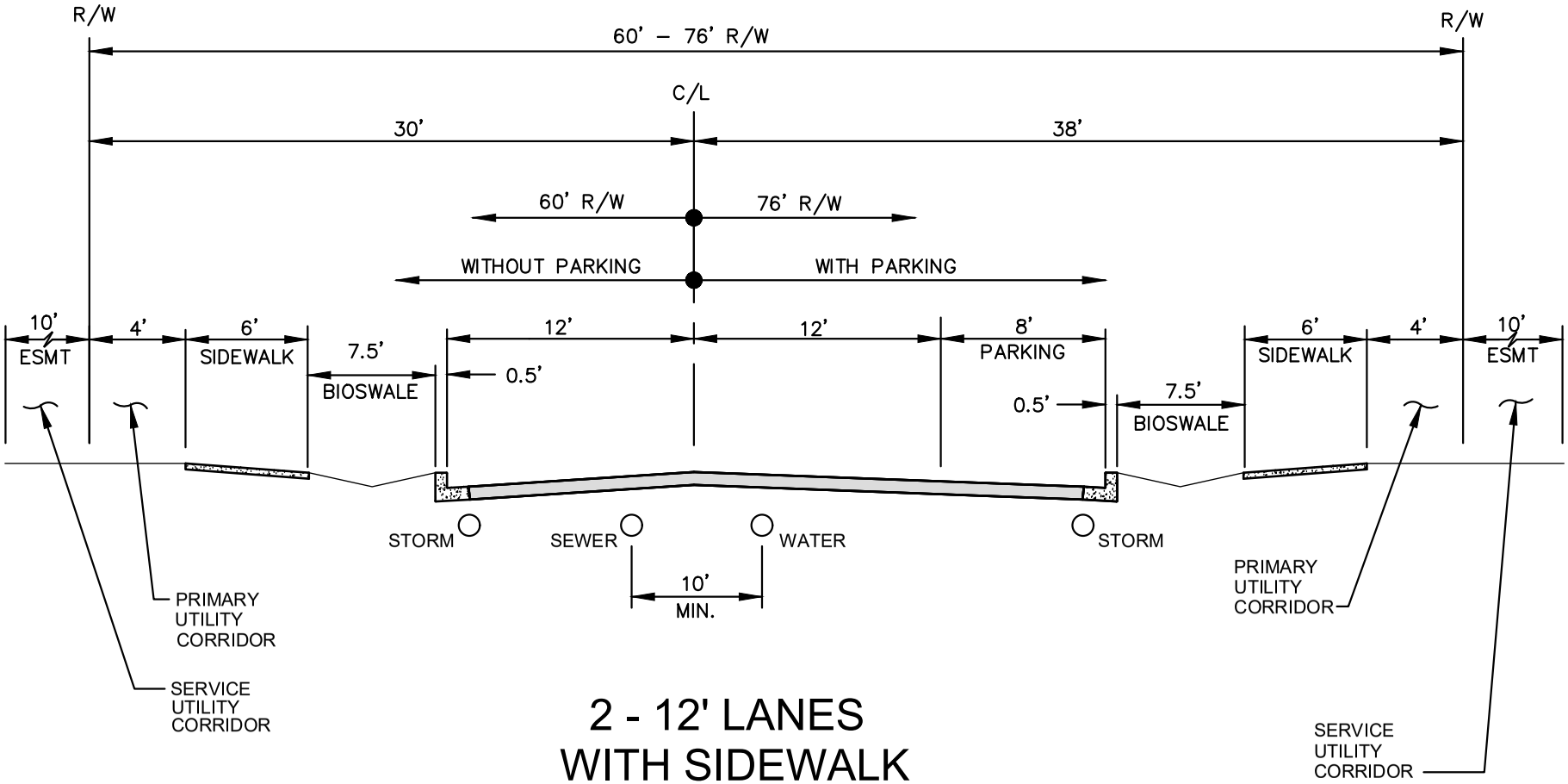
NOTE:
SEE SECTION 2.180 OF CURRENT DESIGN & CONSTRUCTION STANDARDS FOR REQUIRED ROADWAY STRUCTURAL SECTION.

"Building A Stronger Community TOGETHER"

CROSS SECTION RESIDENTIAL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-20



2 - 12' LANES WITH SIDEWALK & BIOSWALE (RESIDENTIAL)

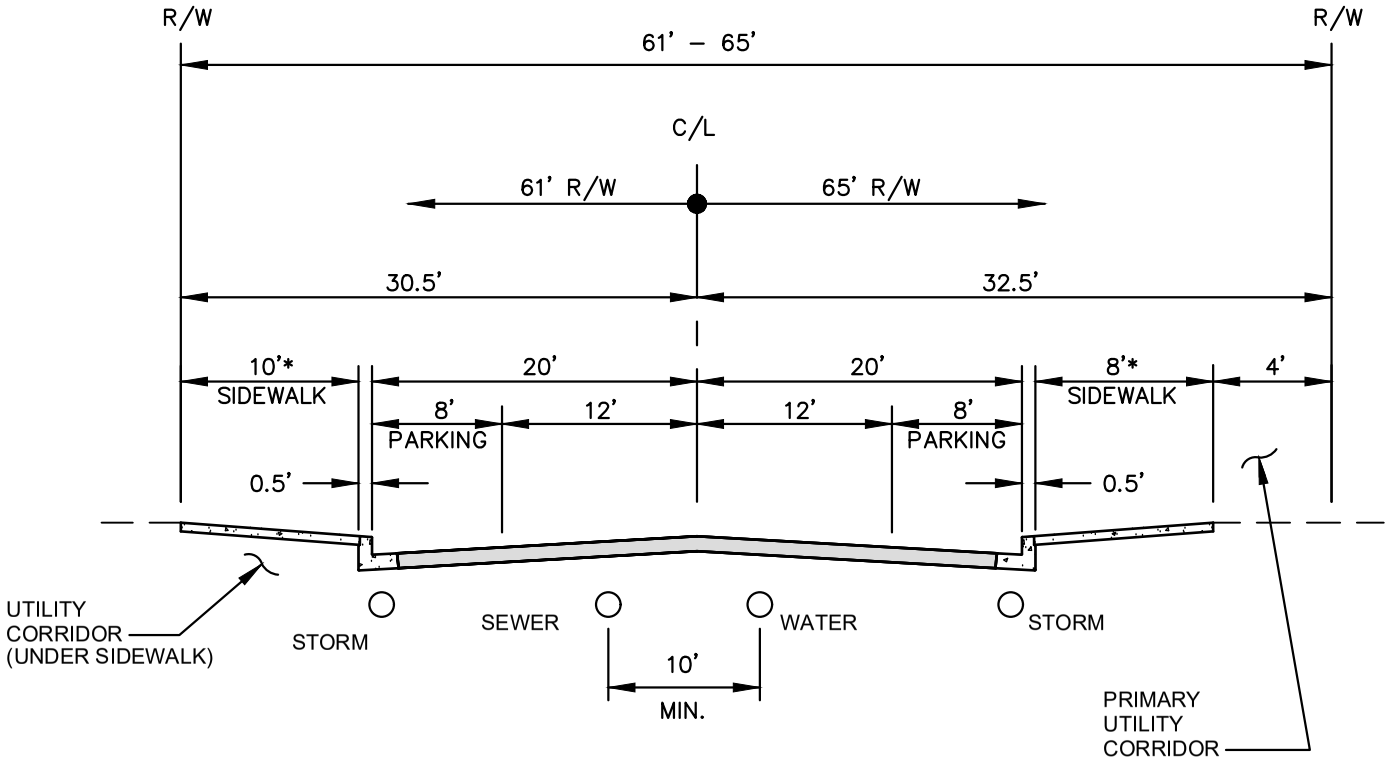
NOTE:
SEE SECTION 2.180 OF CURRENT DESIGN & CONSTRUCTION STANDARDS FOR REQUIRED ROADWAY STRUCTURAL SECTION.

"Building A Stronger Community TOGETHER"

CROSS SECTION RESIDENTIAL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-21



2 - 12' LANES
8' PARKING - EACH SIDE
AND SIDEWALKS
(NON-RESIDENTIAL)

NOTE:
SEE SECTION 2.180 OF CURRENT DESIGN & CONSTRUCTION STANDARDS FOR REQUIRED ROADWAY STRUCTURAL SECTION.

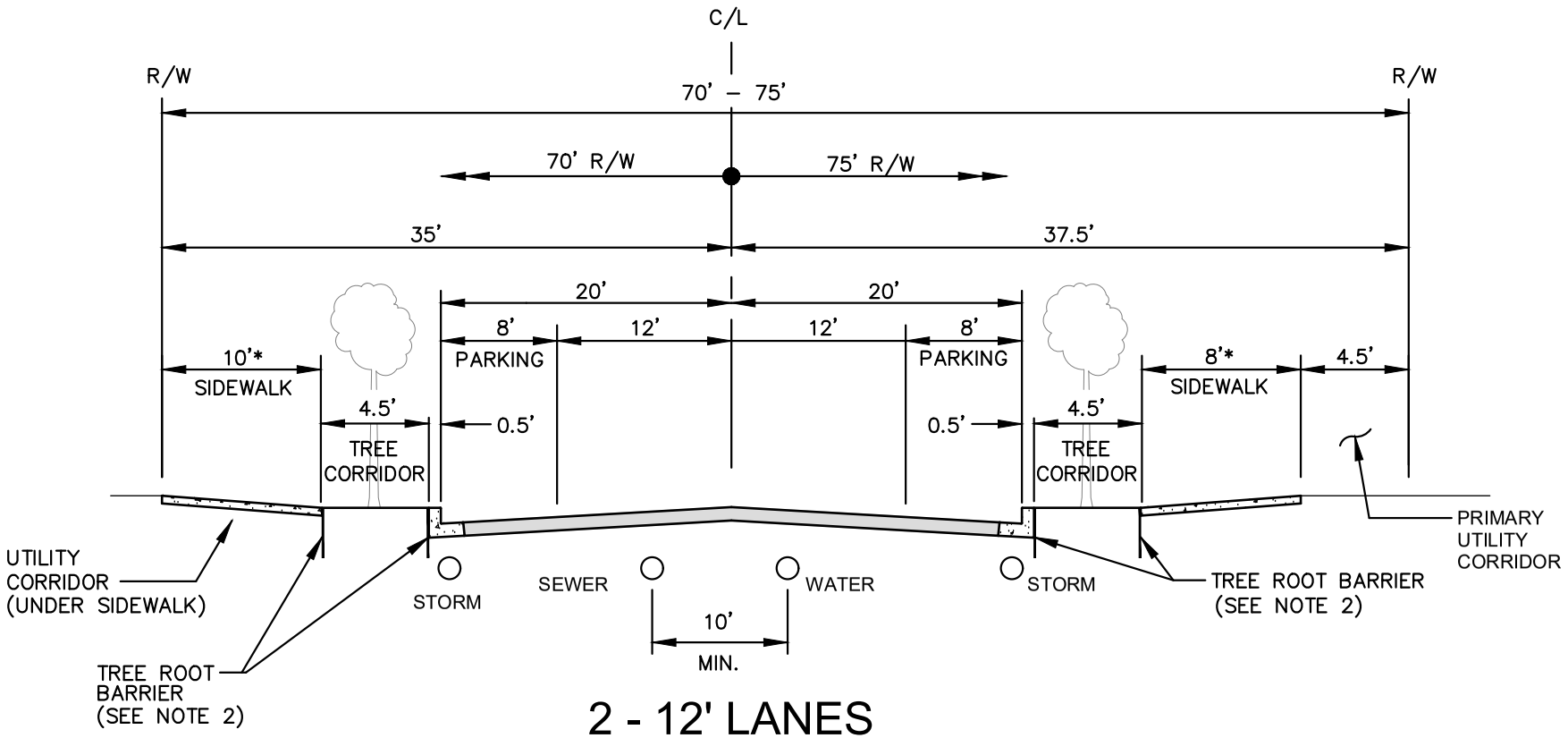
* SPECIAL NOTE:
10' SIDEWALKS REQUIRED IN ZONES OF 0' BLDG. SETBACKS.

"Building A Stronger Community TOGETHER"

CROSS SECTION
NON-RESIDENTIAL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-22



2 - 12' LANES
8' PARKING - EACH SIDE
AND SIDEWALKS WITHIN
DESIGNATED STREET TREE CORRIDORS
(NON-RESIDENTIAL)

NOTE:

1. SEE SECTION 2.180 OF CURRENT DESIGN & CONSTRUCTION STANDARDS FOR REQUIRED ROADWAY STRUCTURAL SECTION.
2. TREE ROOT BARRIER REQUIRED ADJACENT TO ANY PAVEMENT. SEE C.O. SHELTON STD. DETAILS M-03 & M-04 FOR ROOT CONTROL BARRIER.

* SPECIAL NOTE:
10' SIDEWALKS REQUIRED IN ZONES OF 0' BLDG. SETBACKS.

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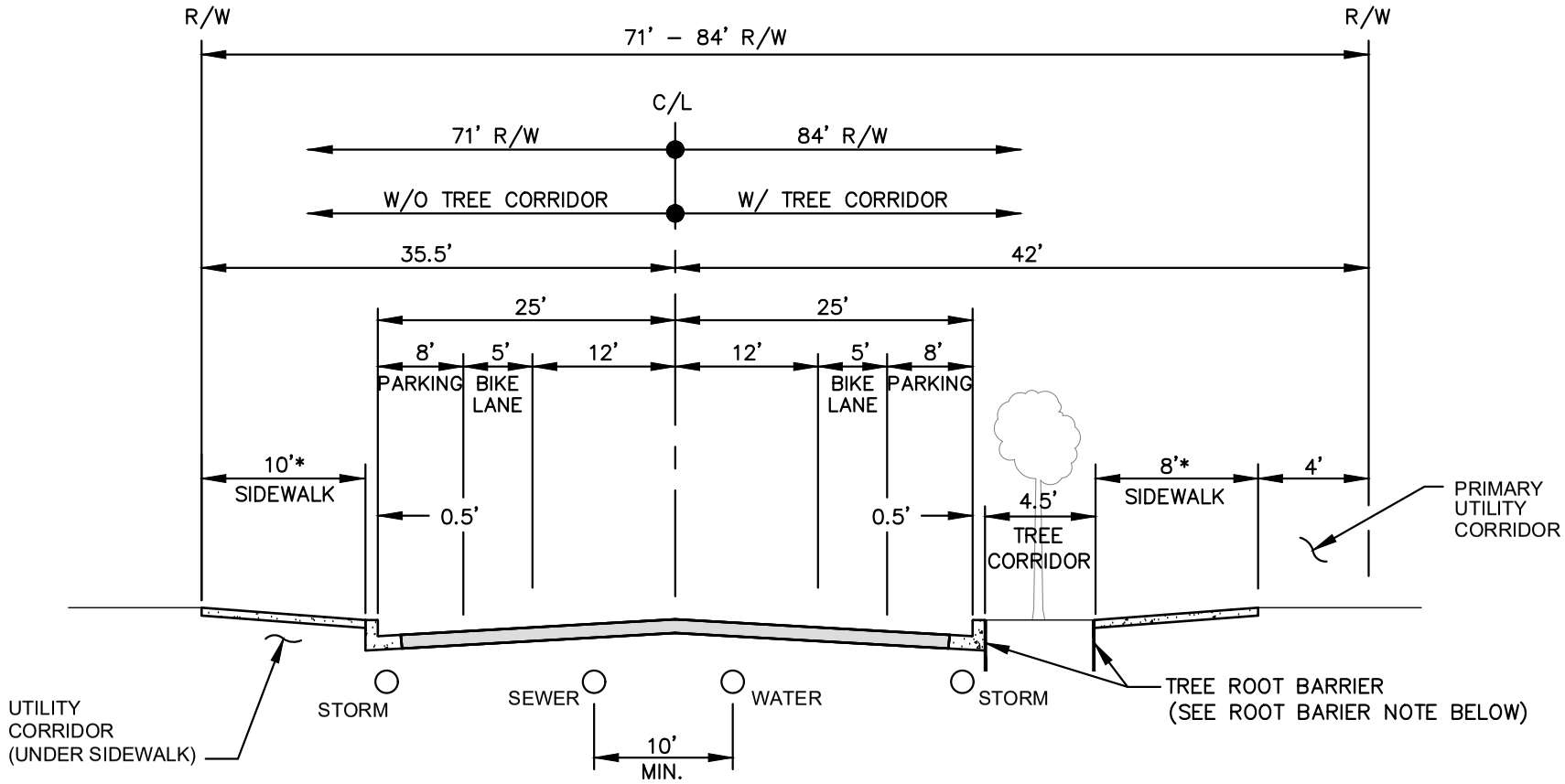
CROSS SECTION
NON-RESIDENTIAL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-23



2 - 12' LANES
8' PARKING - EACH SIDE
BIKE LANES AND SIDEWALKS
WITHIN DESIGNATED STREET TREE CORRIDORS
(NON-RESIDENTIAL)

NOTE:
SEE SECTION 2.180 OF CURRENT DESIGN & CONSTRUCTION STANDARDS FOR REQUIRED ROADWAY STRUCTURAL SECTION.

ROOT BARRIER NOTE:
TREE ROOT BARRIER REQUIRED ADJACENT TO ANY PAVEMENT. SEE C.O. SHELTON STD. DETAILS M-03 & M-04 FOR ROOT BARRIER CONTROL.

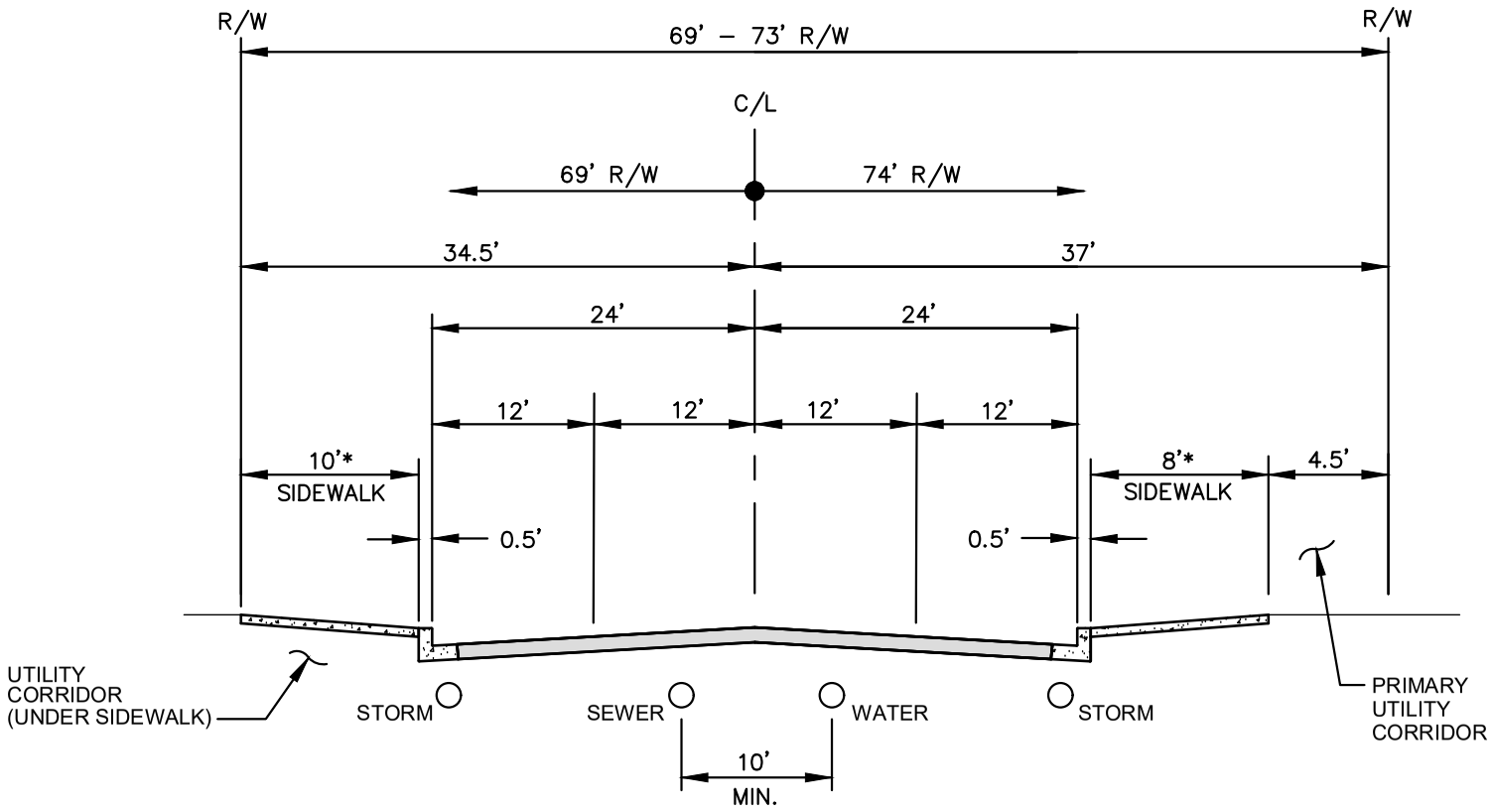
* SPECIAL NOTE:
10' SIDEWALKS REQUIRED IN ZONES OF 0' BLDG. SETBACKS.

"Building A Stronger Community TOGETHER"

CROSS SECTION
NON-RESIDENTIAL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-24



4 - 12' LANES
WITH SIDEWALKS EACH SIDE
(ARTERIAL)

SHARED DRIVEWAY ACCESSES ARE ENCOURAGED.

NOTE:
SEE SECTION 2.180 OF CURRENT DESIGN & CONSTRUCTION STANDARDS FOR REQUIRED ROADWAY STRUCTURAL SECTION.

* SPECIAL NOTES:
10' SIDEWALKS REQUIRED IN ZONES OF 0' BLDG. SETBACKS.

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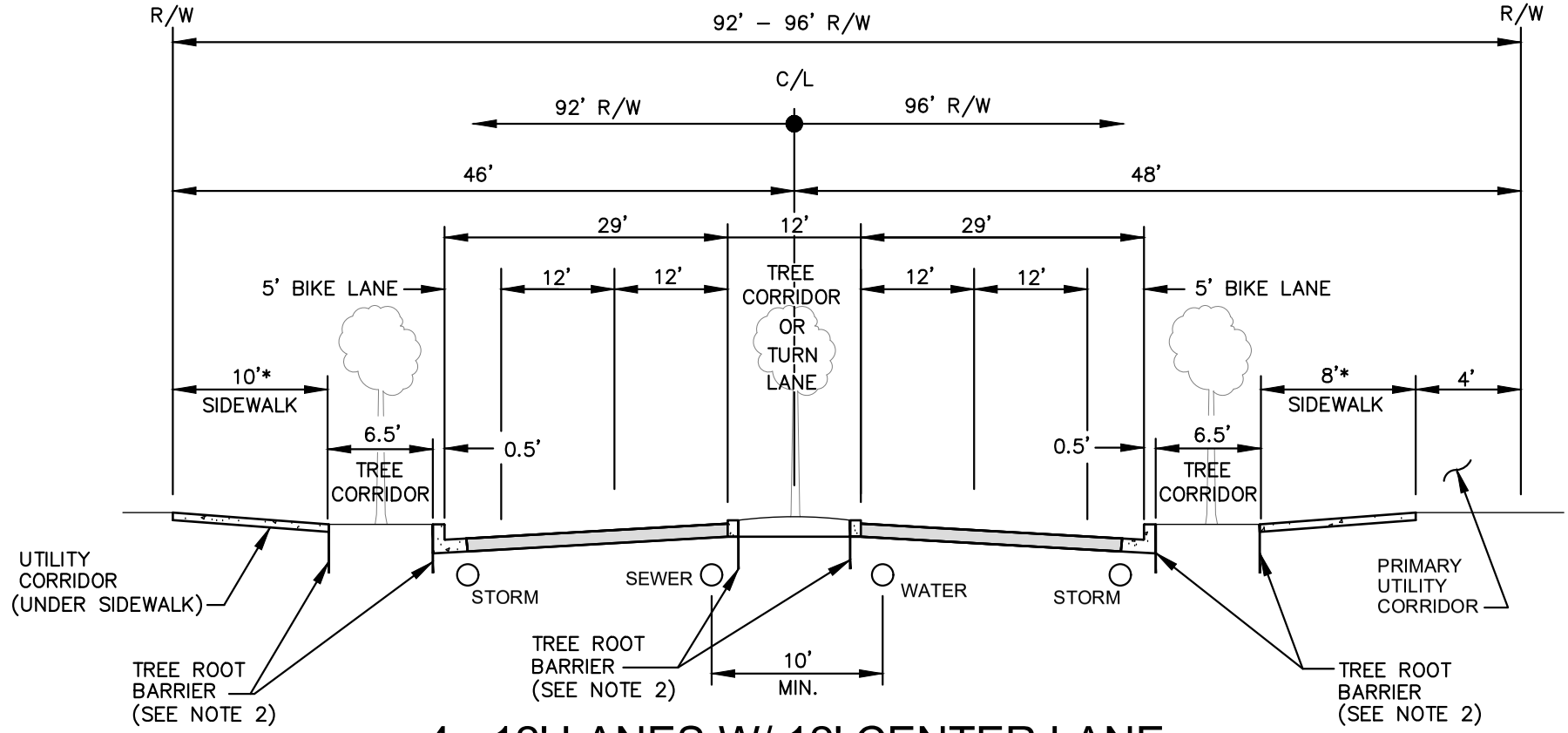
CROSS SECTION ARTERIAL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-25



4 - 12' LANES W/ 12' CENTER LANE FOR TREE CORRIDOR OR TURN LANE & W/ BIKE LANE, & SIDEWALKS WITHIN STREET TREE CORRIDORS (ARTERIAL)

* SPECIAL NOTE:
10' SIDEWALKS REQUIRED IN ZONES OF 0' BLDG. SETBACK.

NOTE:
SEE SECTION 2.180 OF CURRENT DESIGN & CONSTRUCTION STANDARDS FOR REQUIRED ROADWAY STRUCTURAL SECTION.

NOTES:

1. ACCESS TO ARTERIAL SHALL BE FROM SIDE STREET THAT INTERSECTS W/ THE ARTERIAL. IF DIRECT ACCESS TO AN ARTERIAL FROM AN ABUTTING PROPERTY IS ALLOWED BY THE CITY, SHARED ACCESS WILL BE MAXIMIZED.
2. TREE ROOT BARRIER REQUIRED ADJACENT TO ANY PAVEMENT. SEE C.O. SHELTON STD. DETAILS M-03 & M-04 FOR ROOT CONTROL BARRIER.

CITY of SHELTON WASHINGTON
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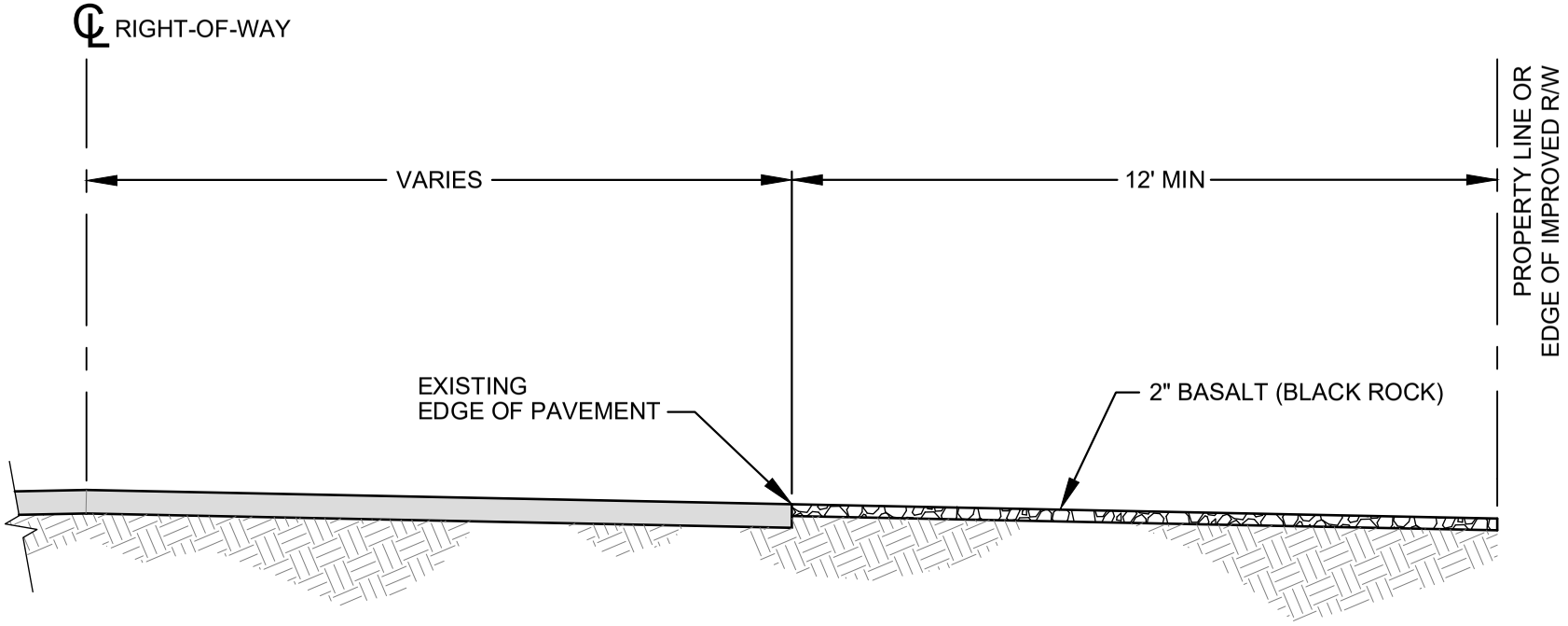
CROSS SECTION ARTERIAL

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-26



CROSS SECTION

(FOR NR ZONE)

NOTE:
NR - NEIGHBORHOOD RESIDENTIAL ZONE

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R/W IMPROVMENTS FOR NR ZONING

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	T-27

C H A P T E R 3

3.000 STORM DRAINAGE

3.010 Public Storm Drainage System Alterations, Extensions and Connections

To allow the City to provide timely assistance and advice, anyone who wishes to alter, extend or connect to the City's storm water drainage system must conform to the requirements specified in Section 13.02.130 of the Shelton Municipal Code, and the current edition of the City Comprehensive Plan. All proposed alterations, extensions or connections to the public storm drainage system must be reviewed and approved by the City of Shelton. The standards established by this Chapter are intended to represent the minimum standards for storm drainage and erosion control facilities.

3.020 Design Standards

The design of storm drainage and/or retention/detention systems shall depend on their type and local site conditions. The design elements of storm drainage systems shall conform to City standards as set forth herein, and follow current design practice. The currently adopted version of the Washington State Department of Ecology *Storm Water Management Manual for Western Washington*, and Chapter 13 of the Shelton Municipal Code are referenced as a part of these *Standards.*

A. Swales

Swales will only be allowed where approved by the City. If approved, swales shall be protected by curbing and maintained by the abutting property owner(s). Also, in residential developments a homeowners association with covenants shall be formed to ensure enforcement of the maintenance requirements.

Swales designed for transporting, storing and/or infiltrating stormwater from public roadways shall not be located on a lot designated for single-family occupancy. Easements proposed for such swales will not be allowed. This is necessary due to the complexity of operating and maintaining the integrity of such facilities within fenced and landscaped private property.

B. Catch Basins

Catch basins shall be located on the upstream side of every intersection. Where there are no intersections, maximum catch basin spacing shall be 300-feet on arterials and collectors and 500-feet on local streets. All storm drainage pipes shall be constructed in a straight line between catch basins and other drainage structures.

C. Retention/Detention Ponds

The maximum depth of a retention or detention pond shall be 4.5-feet from the pond bottom to the top of the pond slope (not the water elevation). Deeper ponds may be allowed by the City if minimum 6-foot wide benches are provided at no more than 4.5 vertical foot intervals.

D. Fencing

Fencing for public safety shall be provided. Surface ponds and infiltration basins with a maximum depth of 3.0 feet or less do not require fencing, provided the maximum associated interior side slope of the pond or basin does not exceed 4H:1V (including baffle side slopes).

All ponds and basins with a maximum depth of water greater than 3 feet will require a 6-foot high perimeter fence unless the following condition is met:

1. The facility is designed and constructed with a 10-foot wide safety bench for every three feet of depth, and the interior side slopes are no greater than 4H;1V (including baffle side slopes); or

2. When fencing is required around a facility to be dedicated to and/or maintained by the City, the fence shall be chain link. The chain link fence fabric shall be galvanized steel core wire and coated with bonded polyvinyl. The polyvinyl coating shall not be subject to fading, cracking, peeling, or shrinkage and shall be brown, black, or some shade of natural green (such as pine, forest, or olive). The fence manufacturer shall provide a 10-year (minimum) warranty on the polyvinyl coating. All fence/gate posts and top/brace rails shall be powder-coated the same color as the chain link fence fabric. The chain link fence shall meet all other applicable specifications for Type 3 chain link fence as set forth in the WSDOT/APWA *Standard Specifications for Road, Bridge, and*

Municipal Construction except that the line posts for Type 3 fence shall be set in concrete.

E. Driveway Culverts

Where roadside ditches are approved, all driveway culvert pipes shall be corrugated metal pipe (CMP), high-density polyethylene (HDPE), concrete or ductile iron with a minimum diameter of 12-inches, and of sufficient length to provide a minimum 3:1 slope from the edge of the driveway to the bottom of the ditch. Culverts shall have beveled end sections to match the side slope.

F. Release to Public System

All on-site storm drainage shall be infiltrated to the highest degree allowed by site conditions. If drainage outlets (stub-outs) are approved by the City to be provided for each individual lot, the stub-outs shall conform to the following:

1. The receiving drainage system shall have sufficient capacity for the onsite release. The developer shall provide an engineered drainage analysis to verify the capacity.

2. Each drainage outlet shall be suitably located at the lowest elevation on the lot, so as to service all future roof downspouts and footing drains, driveways, yard drains, and any other surface or subsurface drains necessary to render the lots suitable for their intended use. Each outlet shall have free-flowing, positive drainage to an approved storm conveyance system or to an approved outfall location.

3. Drainage outlets on each lot shall be located with a 5-foot long steel reinforcing bar painted fluorescent green and driven into the ground. The stub-out shall visibly extend above the surface of the ground and be secured to the reinforcing bar.

4. Drainage easements are required for drainage systems designed to convey flows through individual lots.

5. The Engineer is responsible for coordinating the locations of all stub-out drainage conveyance lines with respect to utilities (e.g., water, sewer, electrical power, gas, telephone, and television).

6. All individual stub-outs to the main or catch basin shall be privately owned and maintained by the lot owner.

3.030 Storm Water System Rainfall Design Criteria

Where single-event modeling is applicable, the following values are to be used as design criteria for stormwater facilities:

100 Year – 24 Hour Design Event	8.50 inches
50 Year – 24 Hour Design Event	7.80 inches
25 Year – 24 Hour Design Event	7.05 inches
10 Year – 24 Hour Design Event	5.50 inches
5 year – 24 Hour Design Event	4.75 inches
2 Year – 24 Hour Design Event	4.00 inches
6 Month – 24 Hour Design Event	2.56 inches
100 Year – 7 Day design Event	16.60 inches

The applicable design storm event shall be used in all calculations submitted to the City for review.

All stormwater facilities shall be designed to meet all requirements of the currently adopted Department of Ecology *Stormwater Management Manual for Western Washington* as referenced in Shelton Municipal Code Title 13, and all Best Management Practices.

All stormwater detention, infiltration and conveyance systems shall be sized to accommodate the modeling requirements of the currently adopted stormwater management manual.

Additionally, whenever an overflow system is proposed, a complete downstream analysis will be required to ensure that downstream properties or stormwater conveyance systems are not compromised.

A. Infiltration Rate Guidelines

Obtaining a design infiltration rate utilizing a soils evaluation and infiltration test is highly desirable for all projects utilizing storm water infiltration systems within the City. The largest infiltration rate allowed for design without a soils investigation and infiltration test is 6-inches per hour (or ten minutes per inch). This rate may be allowed only in locations where the City has sufficient knowledge of existing soils in the vicinity of the project, and where infiltration systems in that location have been performing as designed with this design infiltration rate.

An adequate soils investigation for designing infiltration systems includes a soils exploration and an infiltration test at the depth of the bottom of the proposed infiltration system. The exploration shall be a minimum of three feet below the elevation of the bottom of the proposed infiltration system to determine if high groundwater or impermeable soil layers will impede vertical movement of the stormwater unless otherwise approved by the City. The largest infiltration rate allowed for design with a soils investigation and infiltration test is ten-inches per hour (or six-minutes per inch).

In all cases, an adequate factor of safety shall be utilized when determining a design infiltration rate to compensate for soil clogging and cementation, high groundwater levels, and vertical separation between the bottom of the infiltration system and impermeable soil layers. Additionally, all infiltration rates utilized in the design shall be reviewed and approved by the City. It is recommended that the infiltration rate proposed for the design of infiltration systems be approved by the City prior to the start of design to avoid unnecessary revisions that could prove costly for the applicant and cause delays in the progress of the project.

Storm drain pipe within a public right-of-way or easement shall be sized to carry the maximum anticipated runoff for a 100-Year 24-Hour Storm Event from the contributing area. The minimum size for mains and laterals shall be eight inches in diameter, or as otherwise approved by the City. Nothing shall preclude the City from requiring the installation of a larger-sized storm drain if the City determines a larger size is needed to serve adequate areas or for future service. When the property discharges to the public storm drainage system, installation of appropriately sized storm drains across the face of the property may be required by the City where applicable.

Storm drain pipe shall meet the requirements of Section 7-04.2 of the WSDOT *Standard Specifications*.

All storm drainage systems are required to be air testable in conformance with Section 7-04.3(1) of the WSDOT *Standard Specifications.* Special structures, oil/water separators and outlet controls shall be installed and tested per the approved plans and manufacturer's recommendations.

The minimum cover for storm drain pipe shall be two feet, or as otherwise approved by the City. Where the minimum depth includes the roadway section, structural calculations or manufacturer's specifications for the appropriate H-loading shall be submitted along with the plans. All drain pipe specified where the cover is two feet or less shall be HDPE, concrete or ductile iron of a class determined by the structural calculations or manufacturer's specifications.

Where connections require field verifications, connection points will be exposed by the contractor and fittings verified two business days prior to beginning work.

3.040 Staking

All surveying and staking shall be performed by a Professional Land Surveyor, licensed within the State of Washington. A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

The minimum staking of stormwater lines shall be as follows, unless otherwise directed by the City.

A. Stake centerline alignment every 50 feet with cut or fill to invert of pipe.

B. Stake location of all catch basins, manholes and other structures for grade and alignment with cut or fill to rim and invert of all pipes. Two offsets to the centerline of the structures shall be provided.

C. Grade stake, or slope stake as appropriate, at intervals sufficient to control the location, size and depth of retention/detention facilities.

D. Stake finished grade of all stormwater features, including, but not limited to catch basin/manhole rim elevations, overflow structures, weirs and invert elevations of all pipes in catch basins, manholes, and those pipes that daylight.

3.050 Trench Excavation

See Chapter Two, Section 2.200 for requirements regarding trench excavation.

3.060 Backfilling

See Chapter Two, Section 2.200 for requirements regarding backfilling.

3.070 Street Patching and Restoration

See Chapter Two, Sections 2.190 and 2.200 for requirements regarding street patching and trench restoration.

3.080 Maintenance

The City shall maintain all stormwater drainage elements such as catch basins, oil water separators, and conveyance systems located within the public rights-of-way.

All private stormwater systems are required to have an Operations and Maintenance Manual per Department of Ecology's requirements. The manual must be submitted to the City for review prior to construction authorization. The development's owners' association shall be responsible for maintaining the on-site stormwater facilities including, but not limited to, on-site retention/detention ponds, catch basins, oil-water separators and conveyance system(s).

Each property shall also submit a Stormwater Maintenance Agreement for City approval that addresses the long-term maintenance of its system. Property owners are responsible for conducting inspections and maintenance of their system each year.

3.090 Storm Drainage Construction General Notes

In addition to the General Construction Notes in Chapter One, the Engineer shall include the following notes on any plans dealing with the construction, alterations, extensions or connections to the storm drainage system

A. All storm mains, structures, conveyance systems and retention/detention areas shall be staked for grade and alignment prior to the start of construction.

B. All storm drainage systems are required to be air tested in conformance with Section 7-04.3(1) of the *WSDOT Standard Specifications*. Special structures, oil/water separators and outlet controls shall be installed and tested per the approved plans and manufacturer's recommendations.

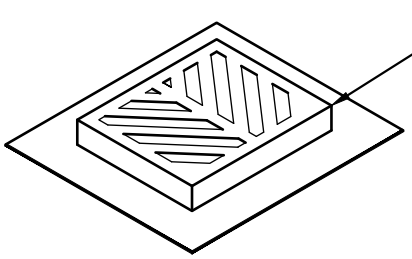
LIST OF DRAWINGS
CHAPTER 3 STORM DRAINAGE

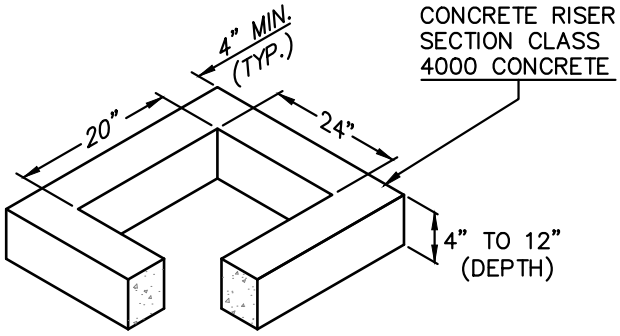
TABLE OF CONTENTS

STORM DRAINAGE DETAILS

NOTES:

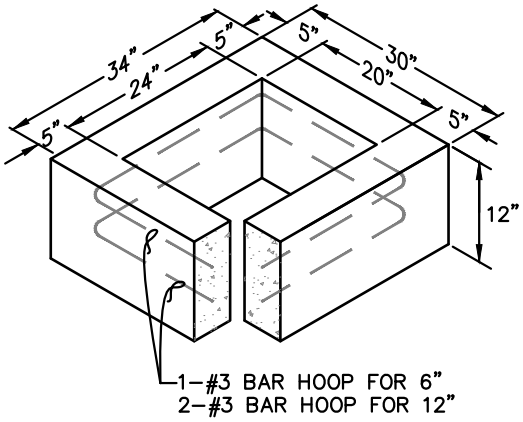
1. FOR PATCHING VOIDS AROUND PIPES, PICKING EYE HOLES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE NON-SHRINK PRECISION GROUT-PRODUCT NO. 1585-00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244-56 -81.
2. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
3. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE® CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.





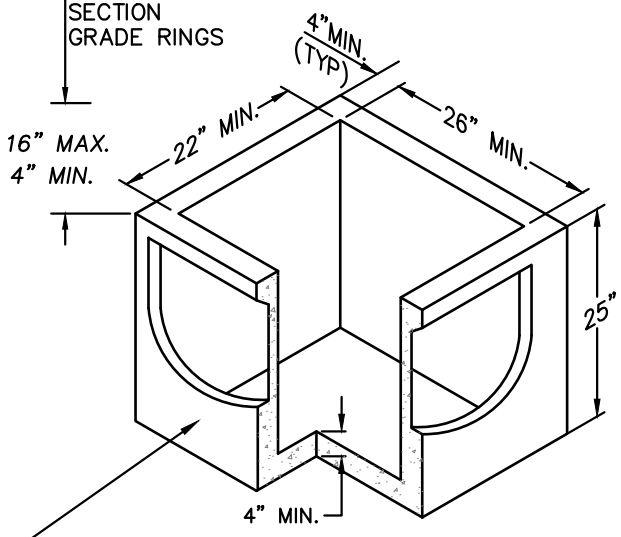
A MIN. OF 4" RISER DEPTH IS REQUIRED

ADJUSTMENT SECTION GRADE RING



12" ADJUSTMENT SECTION GRADE RINGS

REQUIRED:
ADJUSTMENT SECTION GRADE RINGS



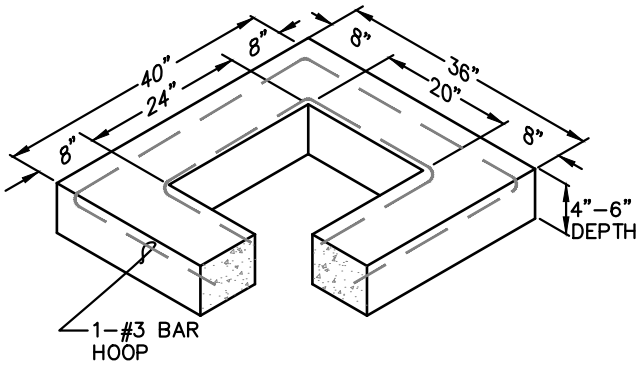
PRECAST CONCRETE BASE SECTION W/MAX. OF ONE 17" KNOCKOUT PER SIDE ENTRANCE ANGLE TO BE LIMITED BY KNOCKOUTS CLASS 4000 CONCRETE PIPE OUTER DIAMETER PLUS INLET WALL THICKNESS SHALL NOT EXCEED 17".

"Building A Stronger Community TOGETHER"

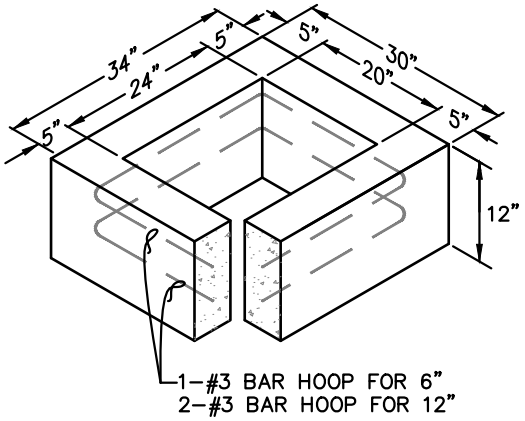
INLET STRUCTURE

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-01

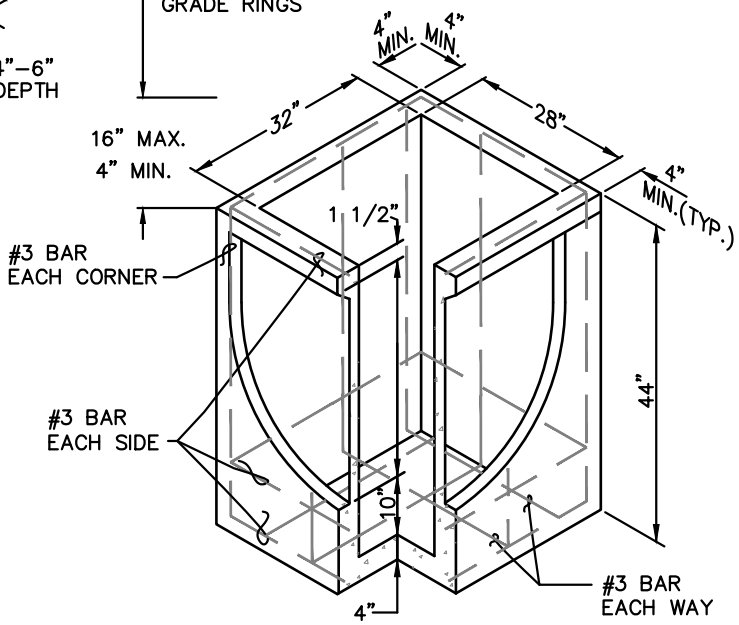


2"-6" ADJUSTMENT SECTION
GRADE RINGS



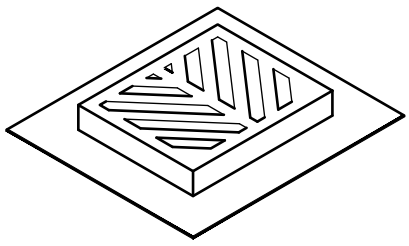
12" ADJUSTMENT SECTION
GRADE RINGS

REQUIRED:
ADJUSTMENT SECTION
GRADE RINGS



PRECAST BASE SECTION

(MEASUREMENT AT THE
TOP OF THE BASE)



FRAME AND GRATE

(SEE STANDARD PLANS FOR DETAILS)

NOTES:

1. CATCH BASINS TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATE TO REBAR, WELDED WIRE FABRIC HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A 497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN THE KNOCKOUTS.
3. THE BOTTOM OF THE PRECAST CATCH BASIN MAY BE POURED ROUNDED.
4. PRECAST BASES SHALL BE FURNISHED W/CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
5. KNOCKOUTS MAY BE IN ALL 4 SIDES WITH MAXIMUM DIAMETER OF 28". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE. PIPE TO BE INSTALLED IN FACTORY SUPPLIED KNOCKOUTS.
6. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS CATCH BASIN WALL THICKNESS.
7. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT..
8. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR–F–62ID. MATING SURFACES SHALL BE FINISHED TO ASSURE NON– ROCKING FIT.
9. FRAME & GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
10. A MIN. OF 4" DEPTH OF RISER REQUIRED. ANY DEVIATION MUST BE APPROVED BY CITY ENGINEER.
11. FOR PATCHING VOIDS AROUND PIPES & HOLES FOR PICKING EYES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON–SHRINK PRECISION GROUT–PRODUCT NO. 1585–00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244–56 –81.
12. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
13. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE® CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

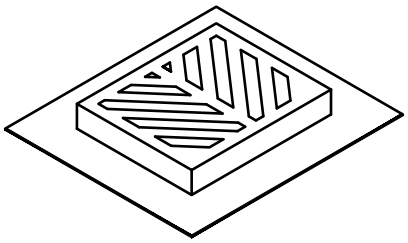
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

CATCH BASIN TYPE 1L

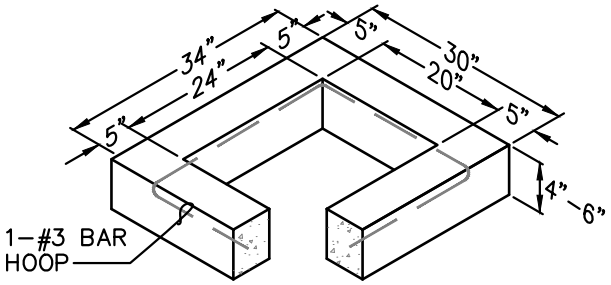
APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-02

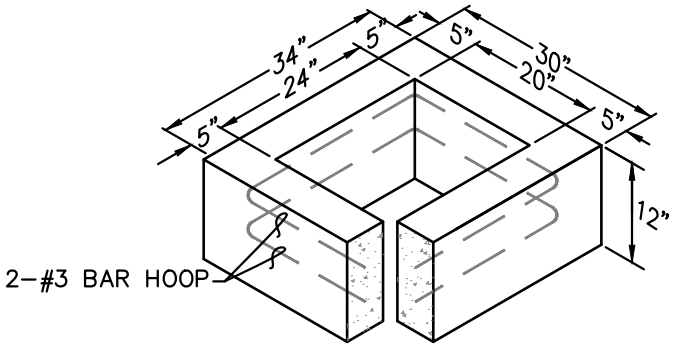


FRAME AND GRATE

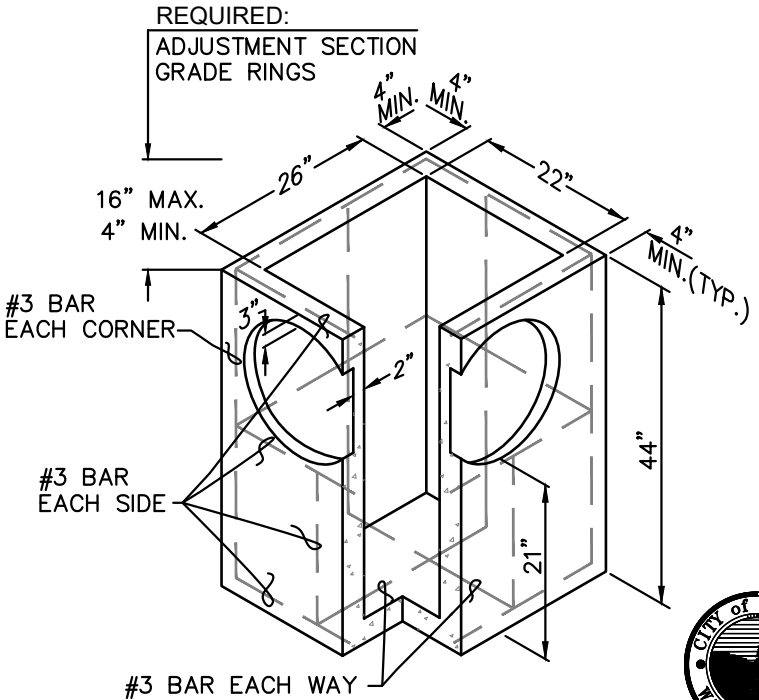
(SEE STANDARD PLAN FOR DETAILS)



4"-6" ADJUSTMENT SECTION GRADE RING



12" ADJUSTMENT SECTION GRADE RING



PRECAST BASE SECTION

(MEASUREMENT AT THE TOP OF THE BASE)

NOTES:

1. IF WIRE MESH IS USED AS AN ALTERNATE TO REBAR, IT SHALL NOT BE PLACED IN KNOCKOUTS.
2. THE BOTTOM OF THE PRECAST BASE SECTION SHALL BE MINIMUM 4" THICK AND MAY BE ROUNDED.
3. KNOCKOUTS MAY BE ON ALL FOUR SIDES, EITHER ROUND OR "D" SHAPE. PIPE TO BE INSTALLED IN FACTORY SUPPLIED KNOCKOUTS. HOLE SIZE SHALL BE EQUAL TO PIPE OUTER DIAMETER PLUS CATCH BASIN WALL THICKNESS, 20" MAX.
4. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'–0".
5. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 4%.
6. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
7. A MIN. OF 4" DEPTH OF RISER REQUIRED. ANY DEVIATION MUST BE APPROVED BY CITY ENGINEER.
8. FOR PATCHING VOIDS AROUND PIPES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON–SHRINK PRECISION GROUT–PRODUCT NO. 1585–00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244–56 –81.
9. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
10. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

CITY of SHELTON WASHINGTON

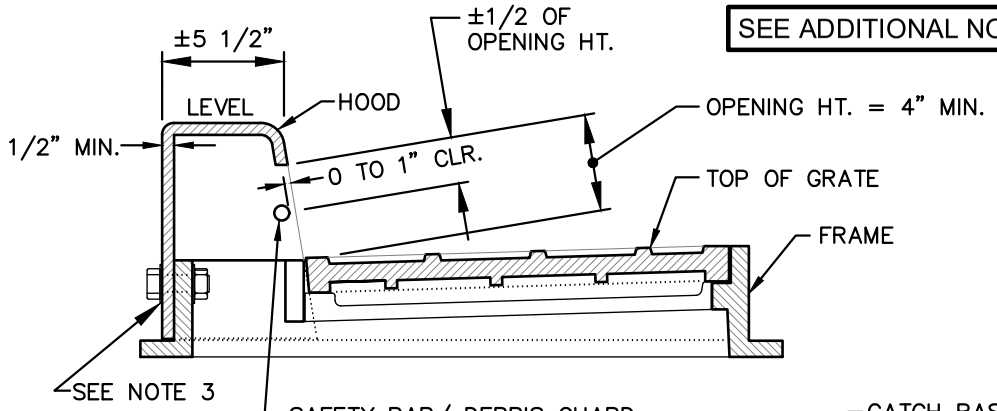
"Building A Stronger Community TOGETHER"

CATCH BASIN TYPE 1

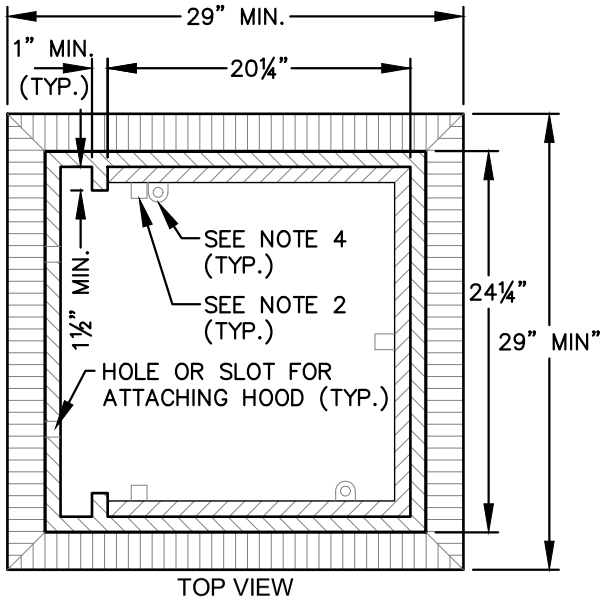
APPROVED: CRAIG GREGORY
CITY ENGINEER

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-03

SEE ADDITIONAL NOTES FOR COMBINATION INLET ON SHT. 2 OF 2 OF DETAIL SD-04

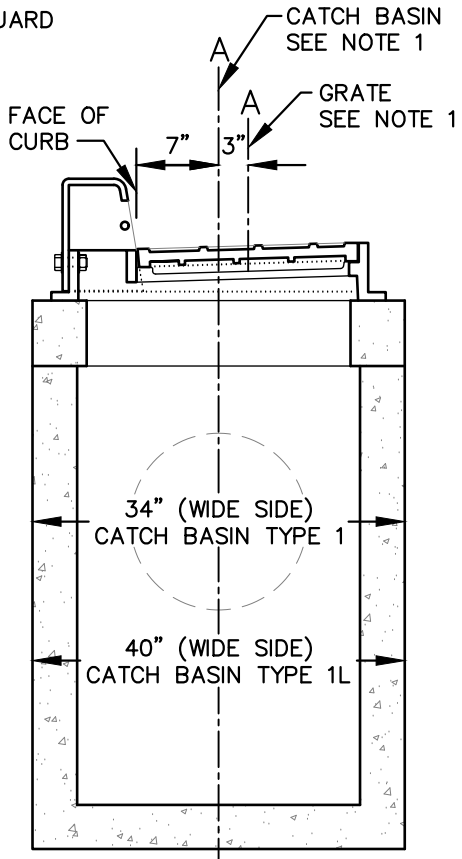


A DETAIL SECTION

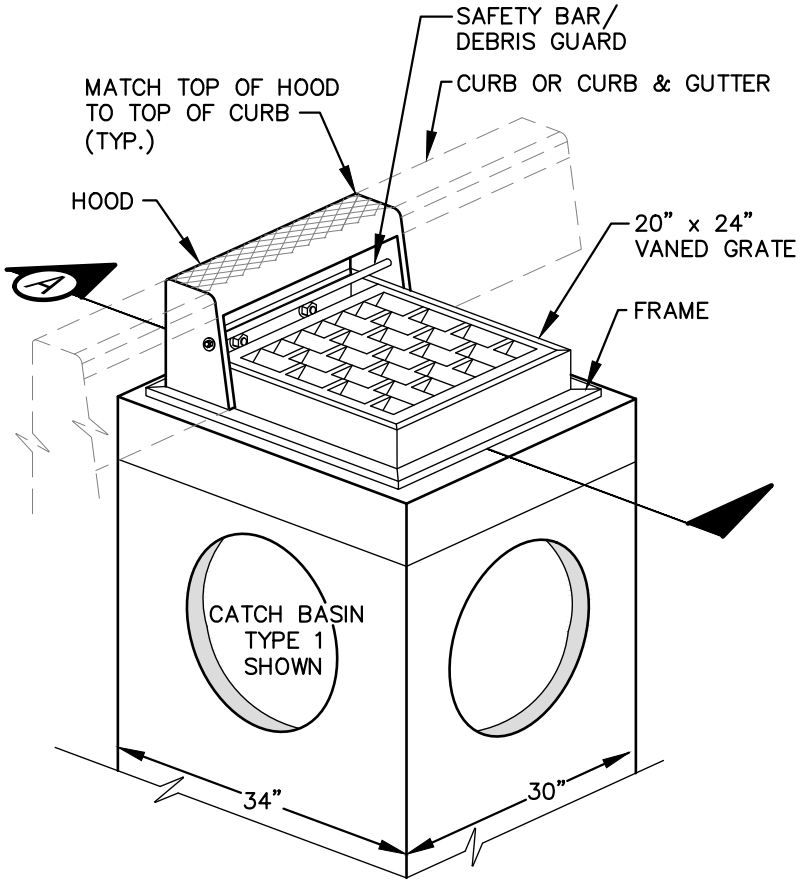


TOP VIEW

FRAME DETAIL



A SECTION



ISOMETRIC VIEW

COMBINATION INLET

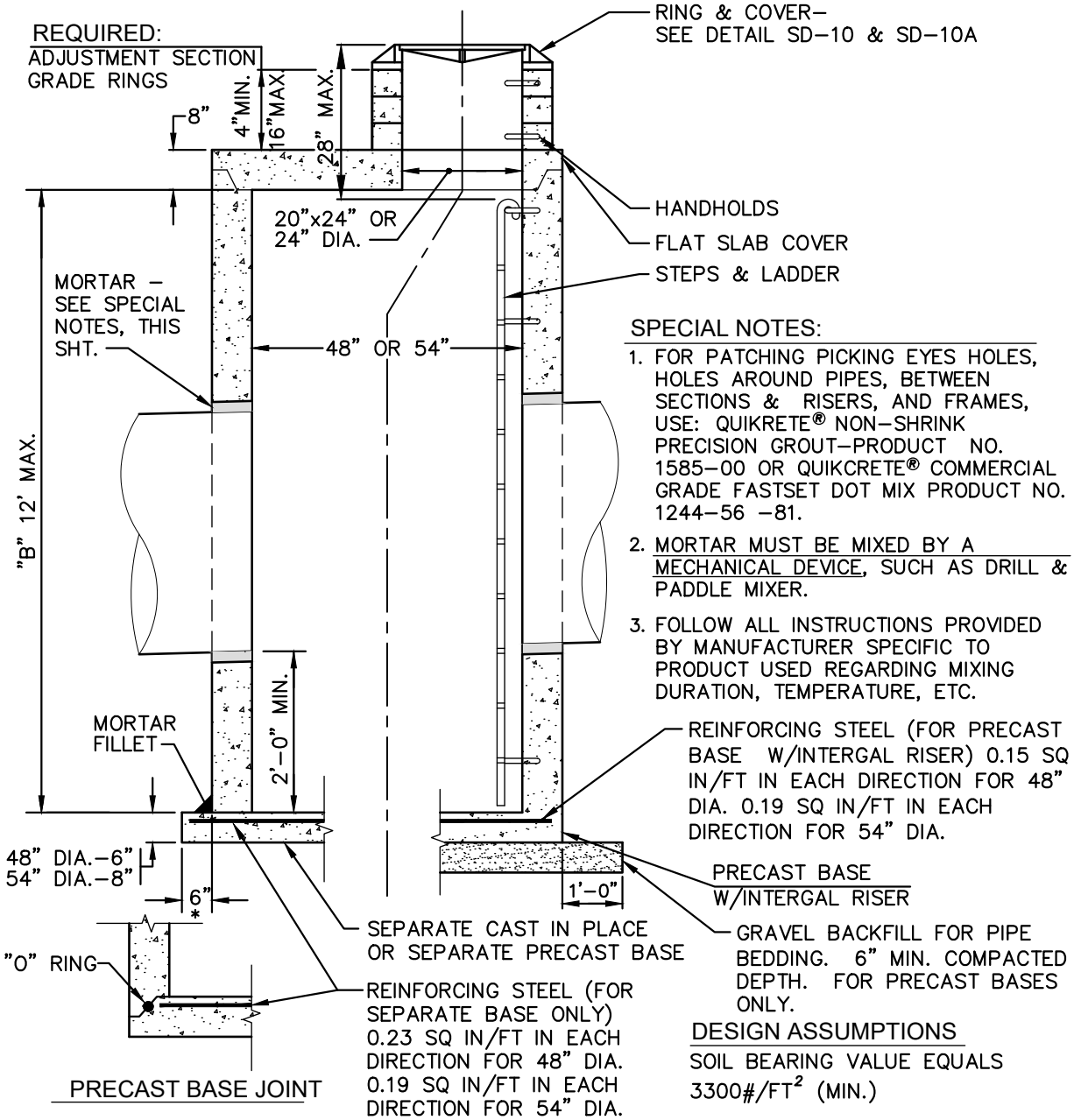
FRAME, HOOD & VANED GRATE

"Building A Stronger Community TOGETHER"

COMBINATION INLET (CB TYPE 1 SHOWN)

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-04



PRECAST BASE JOINT

SPECIAL NOTES:

1. FOR PATCHING PICKING EYES HOLES, HOLES AROUND PIPES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON–SHRINK PRECISION GROUT–PRODUCT NO. 1585–00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244–56 –81.
2. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
3. FOLLOW ALL INSTRUCTIONS PROVIDED BY MANUFACTURER SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

DESIGN ASSUMPTIONS

SOIL BEARING VALUE EQUALS 3300#/FT^2 (MIN.)

NOTES:

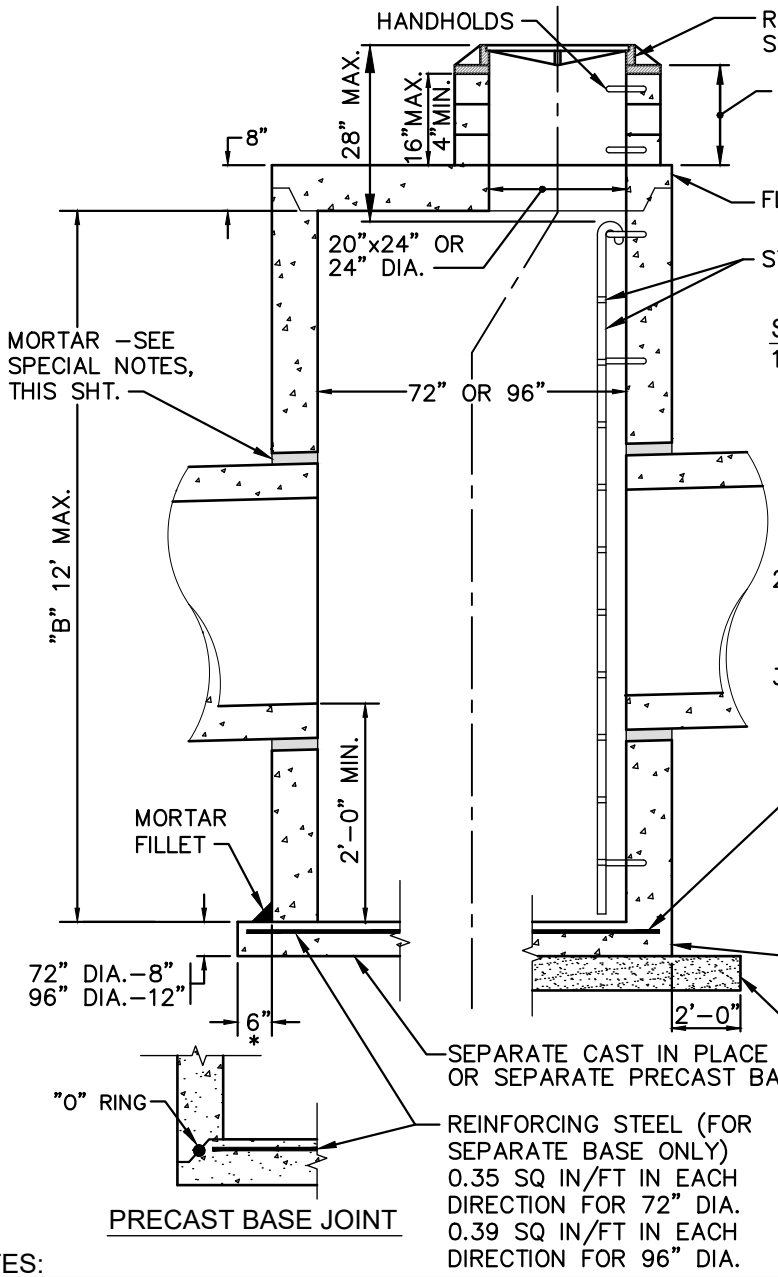
1. CATCH BASINS TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. HANDHOLDS IN RISER OR ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEAR–ANCE. NO STEPS ARE REQUIRED WHEN "B" IS 4' OR LESS.
3. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS A. ALL PRECAST CONCRETE SHALL OBTAIN 4,000 PSI @ 28 DAYS.
4. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS CATCH BASIN WALL THICKNESS. MAX. HOLE SIZE IS 36" FOR 48" CATCH BASIN, 42" FOR 54" CATCH BASIN. MIN. DISTANCE BETWEEN HOLES IS 8".
5. FOR RING & COVER SEE DETAIL SD–10 & SD–10A.
6. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.
7. THE BOTTOM OF THE PRECAST CATCH BASIN MAY BE POURED ROUNDED.
8. FOR DETAILS SHOWING LADDER, STEPS HANDRAIL & TOP SLAB SEE STANDARD PLAN "MISCELLANEOUS CATCH BASIN DETAILS".
9. FRAME & GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.

"Building A Stronger Community TOGETHER"

CATCH BASIN: TYPE 2
48" & 54"

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-05



PRECAST BASE JOINT

SPECIAL NOTES:

1. FOR PATCHING HOLES AROUND PIPES, PICKING EYE HOLES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON-SHRINK PRECISION GROUT-PRODUCT NO. 1585-00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244-56 -81.
2. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
3. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE® CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

REINFORCING STEEL (FOR PRECAST BASE W/INTERGAL RISER) 0.24 SQ IN/FT IN EACH DIRECTION FOR 72" DIA. 0.29 SQ IN/FT IN EACH DIRECTION FOR 96" DIA.

PRECAST BASE W/INTERGAL RISER

GRAVEL BACKFILL FOR PIPE BEDDING. 6" MIN. COMPACTED DEPTH. FOR PRECAST BASES ONLY.

DESIGN ASSUMPTIONS

SOIL BEARING VALUE EQUALS

3300#/FT^2 (MIN)

NOTES:

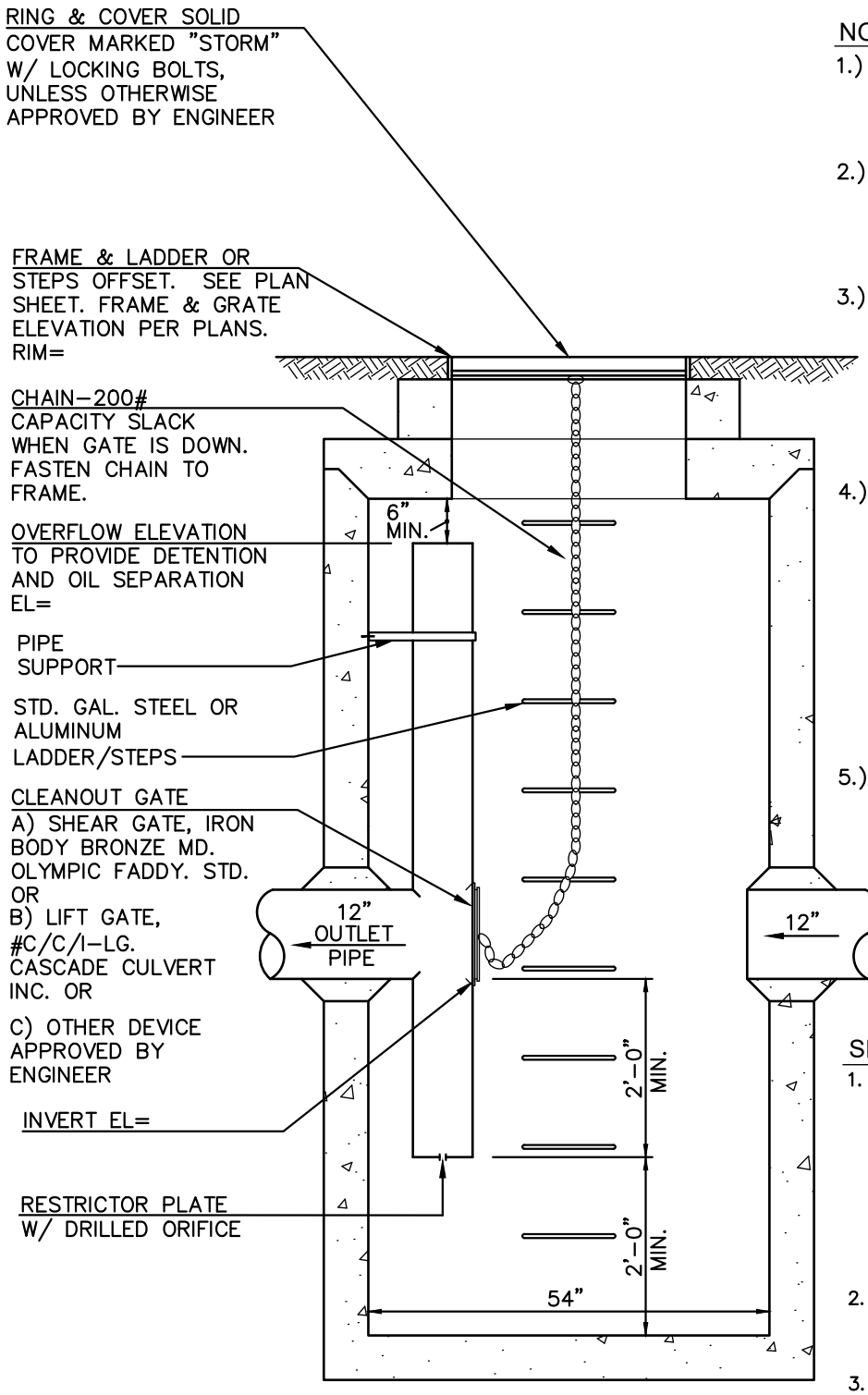
1. CATCH BASINS TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. HANDHOLDS IN RISER OR ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEARANCE. NO STEPS ARE REQUIRED WHEN "B" IS 4' OR LESS.
3. PRECAST BASES SHALL BE FURNISHED W/CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
4. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS A. ALL PRECAST CONCRETE SHALL OBTAIN 4,000 PSI @ 28 DAYS.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS CATCH BASIN WALL THICKNESS. MAX. HOLE SIZE IS 36" FOR 48" CATCH BASIN, 42" FOR 54" CATCH BASIN. MIN. DISTANCE BETWEEN HOLES IS 8".
6. FOR RING & COVER SEE DETAIL SD-18 & SD-19. FRAME & GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-62ID. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT.
7. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.
8. THE BOTTOM OF THE PRECAST CATCH BASIN MAY BE POURED ROUNDED.
9. FOR DETAILS SHOWING FRAME AND GRATE, RING AND COVER SEE STANDARD PLAN "METAL FRAME & GRATE FOR CATCH BASIN & INLET.
10. FOR DETAILS SHOWING LADDER, STEPS HANDRAIL & TOP SLAB SEE STANDARD PLAN "MISCELLANEOUS CATCH BASIN DETAILS".
11. FRAME & GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.

"Building A Stronger Community TOGETHER"

CATCH BASIN: TYPE 2
72" & 96"

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-06



NOTES:

1.) PIPE SIZES & SLOPES, SEE PLANS.

2.) OUTLET CAPACITY NOT LESS THAN COMBINED INLETS

3.) METAL PARTS:
- A) CORROSION RESISTANT OR GALVANIZED OR ALUMINIZED TYPE 2,
- B) IF GALVANIZED STEEL PIPE, HAVE ASPHALT TREATMENT 1.

4.) FRAME & LADDER OR STEPS OFFSET SO:
- A) CLEANOUT GATE IS VISIBLE FROM TOP.
- B) CLIMBDOWN SPACE IS CLEAR OF RISER & CLEANOUT GATE.
- C) FRAME IS CLEAR OF CURB.

5.) STRUCTURE SHALL BE A TYPE 2 CATCH BASIN MINIMUM.

SPECIAL NOTES:

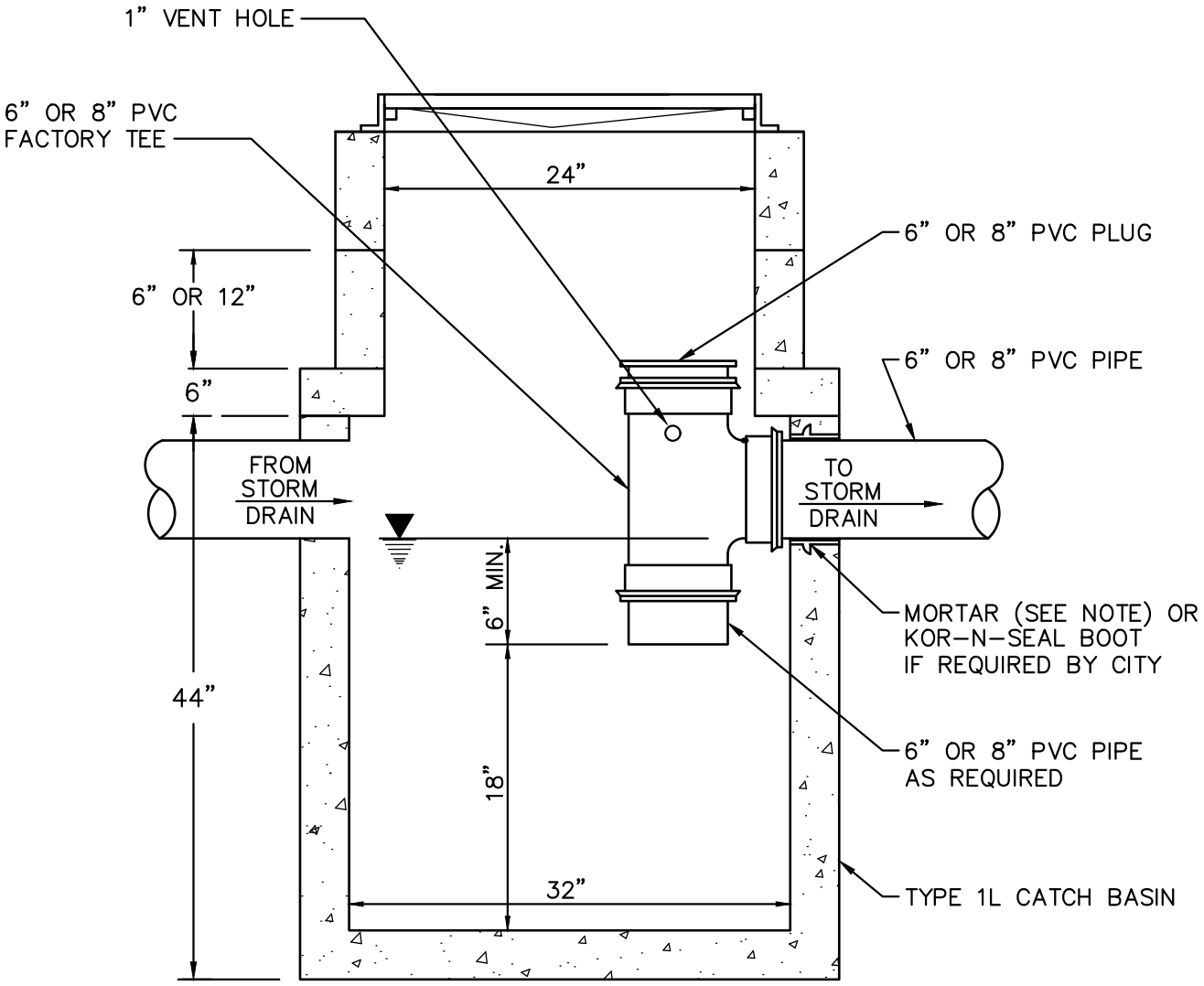
1. FOR PATCHING PICKING EYES HOLES, HOLES AROUND PIPES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON–SHRINK PRECISION GROUT–PRODUCT NO. 1585–00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244–56 –81.
2. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
3. FOLLOW ALL INSTRUCTIONS PROVIDED BY MANUFACTURER SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

"Building A Stronger Community TOGETHER"

FLOW RESTRICTOR CATCH BASIN

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-07



NOTES:

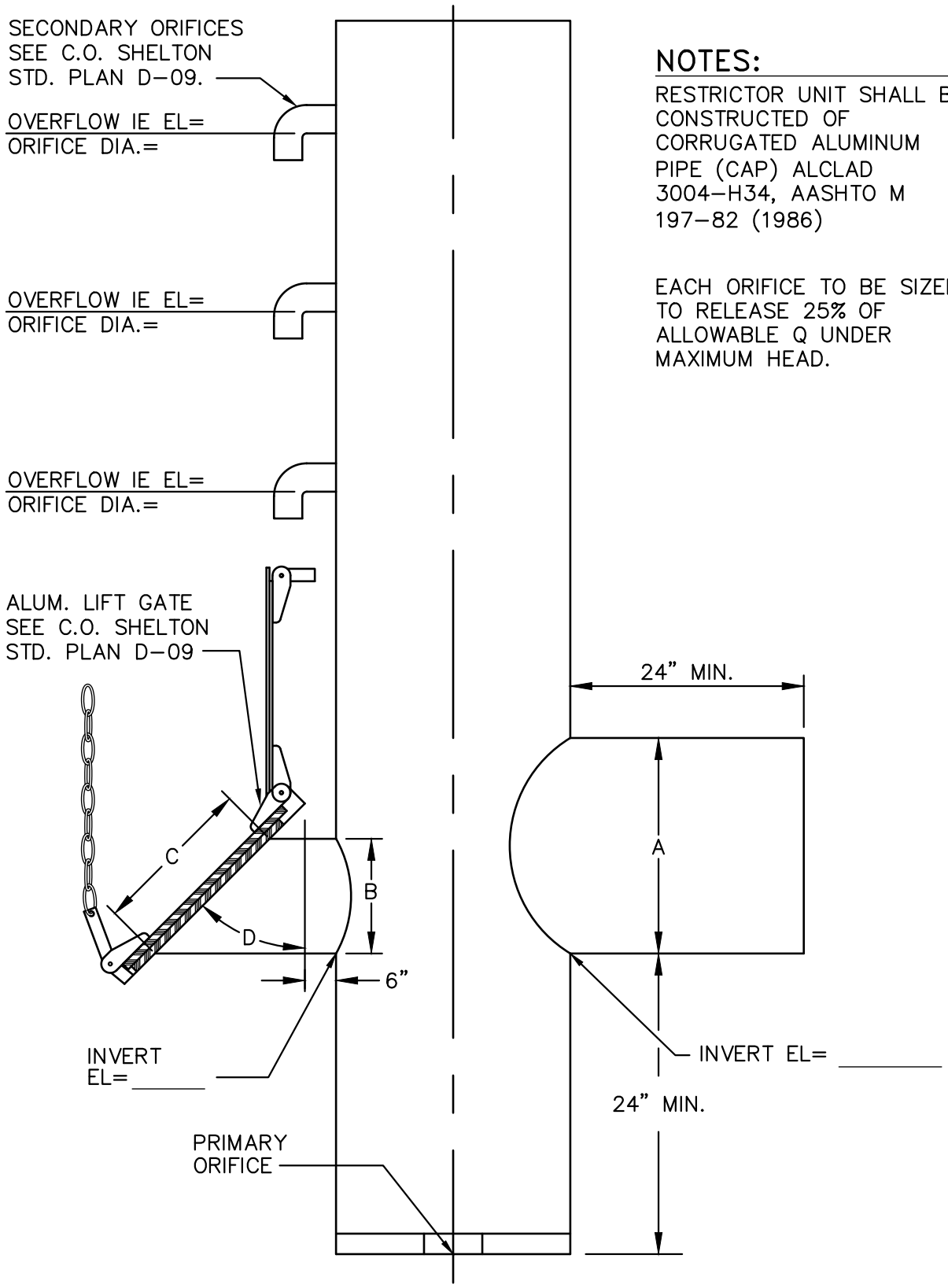
1. FOR PATCHING VOIDS AROUND PIPES, PICKING EYE HOLES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON-SHRINK PRECISION GROUT-PRODUCT NO. 1585-00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244-56 -81.
2. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
3. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE® CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

"Building A Stronger Community TOGETHER"

FLOATABLE MATERIAL SEPARATOR

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-08



NOTES:

RESTRICTOR UNIT SHALL BE CONSTRUCTED OF CORRUGATED ALUMINUM PIPE (CAP) ALCLAD 3004-H34, AASHTO M 197-82 (1986)

EACH ORIFICE TO BE SIZED TO RELEASE 25% OF ALLOWABLE Q UNDER MAXIMUM HEAD.

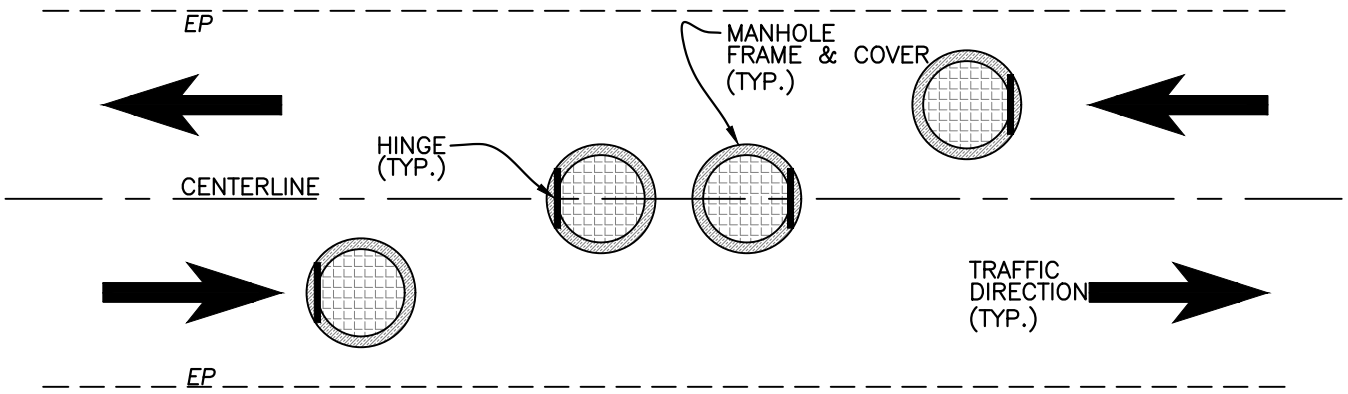
ITEM	DESCRIPTION	SIZE	
A	OUTLET	18" & SMALLER	24" & LARGER
B	CLEANING	6" ID	10" ID
C	GATE SIZE	8" OPENING	12" OPENING
D	ANGLE	42	34

"Building A Stronger Community TOGETHER"

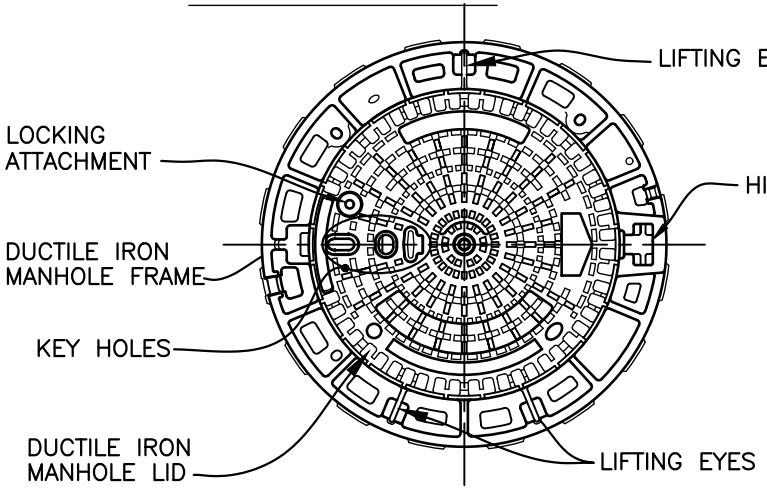
TYPICAL RESTRICTOR INSTALLATION

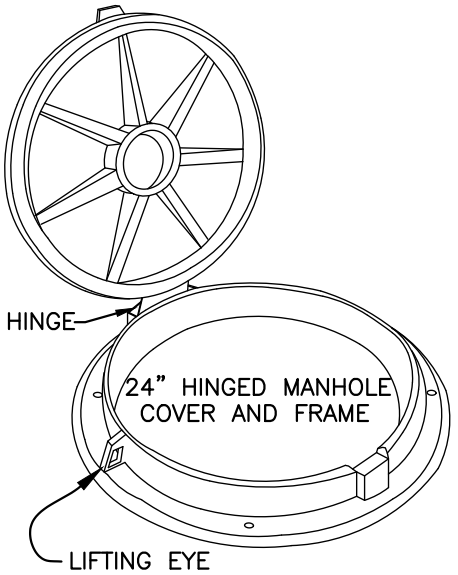
APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-09



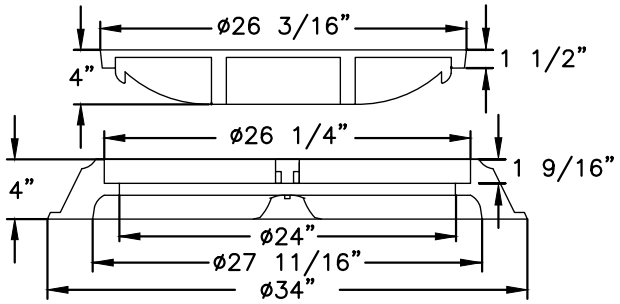
PLAN VIEW





ISOMETRIC VIEW

TOP VIEW



ELEVATION VIEW

NOTES:

1.) CATCH BASIN TYPE 2 COVER AND FRAME SHALL BE CALLED EAST JORDAN. COVER AND FRAME SHALL BE MANUFACTURED FROM DUCTILE IRON. HINGE MUST BE PERPENDICULAR TO FLOW OF TRAFFIC. SEE PLAN VIEW.

2.) COVERS SHALL HAVE LOCKING ATTACHMENT. COVERS SHALL BE HINGED AND INCORPORATE A 90 DEGREE BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE. COVERS SHALL BE ONE MAN OPERABLE USING STANDARD TOOLS AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 80,000 LBS.

3.) FRAMES SHALL BE CIRCULAR, INCORPORATE A SEATING RING AND A FITTED PLUG IN THE HINGE HOUSING, AND BE AVAILABLE IN A 24 INCH CLEAR OPENING. THE FRAME DEPTH SHALL NOT EXCEED 4 INCHES, AND THE FLANGE SHALL INCORPORATE BEDDING SLOTS, BOLT HOLES, AND LIFTING EYES.

4.) ALL COMPONENTS SHALL BE BLACK COATED.

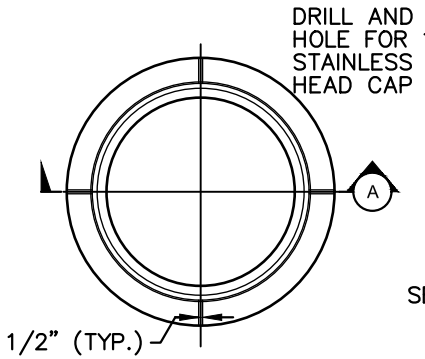
5.) FOR CATCH BASIN TYPE 2 INSTALLATION OUTSIDE OF PAVED AREAS SEE C.O. SHELTON STD. DETAIL SD–10A.

"Building A Stronger Community TOGETHER"

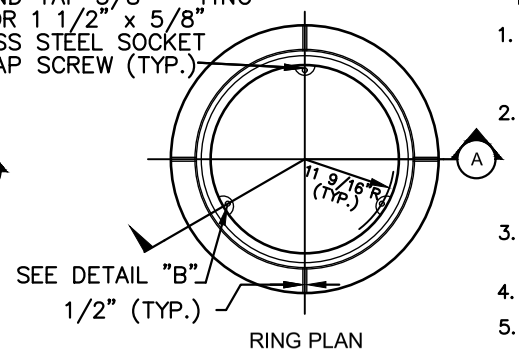
EAST JORDAN CB TYPE 2 COVER & FRAME FOR PAVED AREAS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

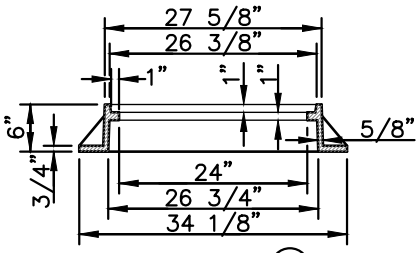
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-10



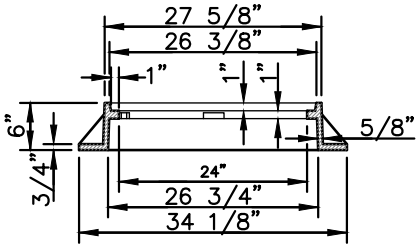
RING PLAN



RING PLAN



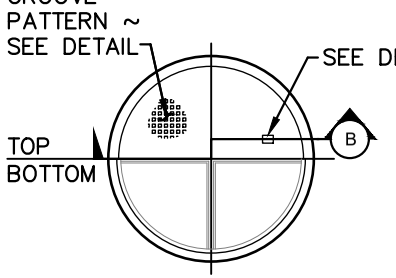
RING SECTION (A)



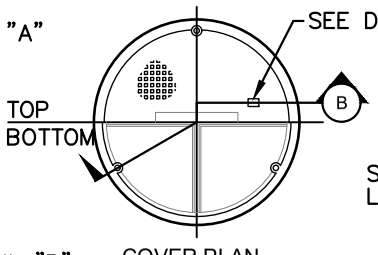
RING SECTION (A)

NOTES

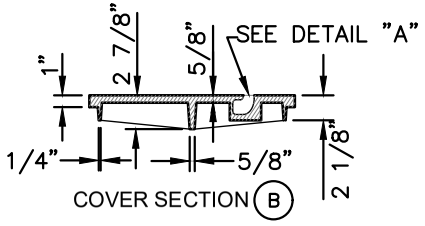
1. THE GASKET AND GROOVE MAY BE IN THE SEAT (FRAME) OR IN THE UNDERSIDE OF THE COVER. THE GASKET MAY BE "T" SHAPED IN SECTION. THE GROOVE MAY BE CAST OR MACHINED.
2. BOLT–DOWN CAPABILITY IS REQUIRED ON ALL FRAMES, GRATES, AND COVERS, UNLESS SPECIFIED OTHERWISE IN THE CONTRACT. PROVIDE 3 HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE OR COVER SLOTS. THE FRAME SHALL ACCEPT THE 5/8" – 1 NC ×2" ALLEN HEAD CAP SCREW BY BEING TAPPED, OR OTHER APPROVED MECHANISM. LOCATION OF BOLT DOWN HOLES VARIES BY MANUFACTURER.
3. FOR BOLT–DOWN CB TYPE 2 RING AND COVERS THAT ARE NOT DESIGNATED "WATERTIGHT," THE NEOPRENE GASKET, GROOVE, AND WASHER ARE NOT REQUIRED.
4. WASHER SHALL BE NEOPRENE (DETAIL "B").
5. IN LIEU OF BLIND PICK NOTCH FOR MANHOLE COVERS, A SINGLE 1" PICK HOLE IS ACCEPTABLE. HOLE LOCATION AND NUMBER OF HOLES MAY VARY BY MANUFACTURER.
6. ALTERNATIVE REINFORCING DESIGNS ARE ACCEPTABLE IN LIEU OF THE RIB DESIGN.
7. WATERTIGHT CB TYPE 2 COVER SHALL BE OLYMPIC FOUNDRY INC., OR APPRV'D EQUAL.
8. ALL CB TYPE 2 RING & COVERS TO MEET CURRENT WSDOT STD. SPECIFICATIONS.
9. FOR CATCH BASIN TYPE 2 INSTALLATION INSIDE OF PAVED AREAS/CONCRETE SEE C.O. SHELTON STD. DETAIL SD–10.



COVER PLAN

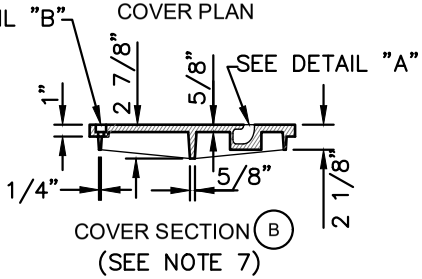


COVER PLAN



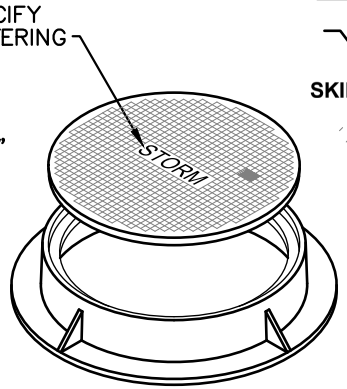
COVER SECTION (B)

STANDARD
TYPE 1

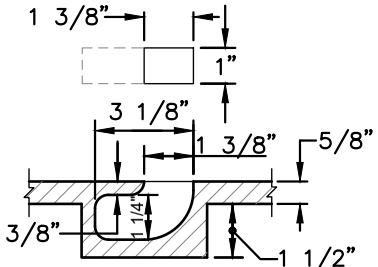


COVER SECTION (B)

(SEE NOTE 7)
BOLT-DOWN / WATERTIGHT
TYPE 2

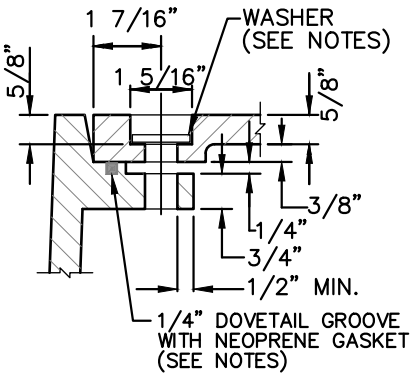


ISOMETRIC VIEW



BLIND PICK NOTCH
DETAIL "A"

SKID GROOVE PATTERN DETAIL



BOLT-DOWN / WATERTIGHT
DETAIL "B"

SEE DETAIL SD-19 FOR
ADDITIONAL REQUIREMENTS

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CATCH BASIN TYPE 2 RING AND COVER FOR UNPAVED AREAS

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PUBLIC WORKS DIRECTOR

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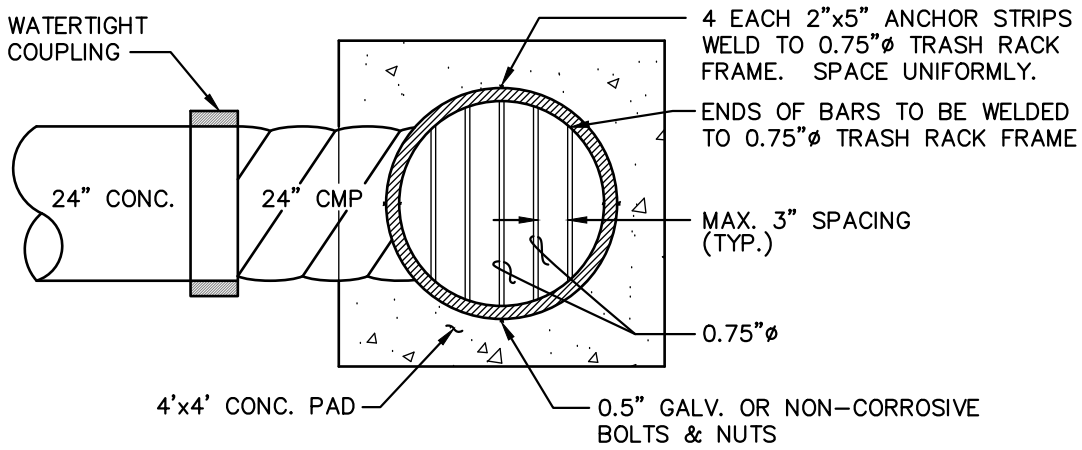
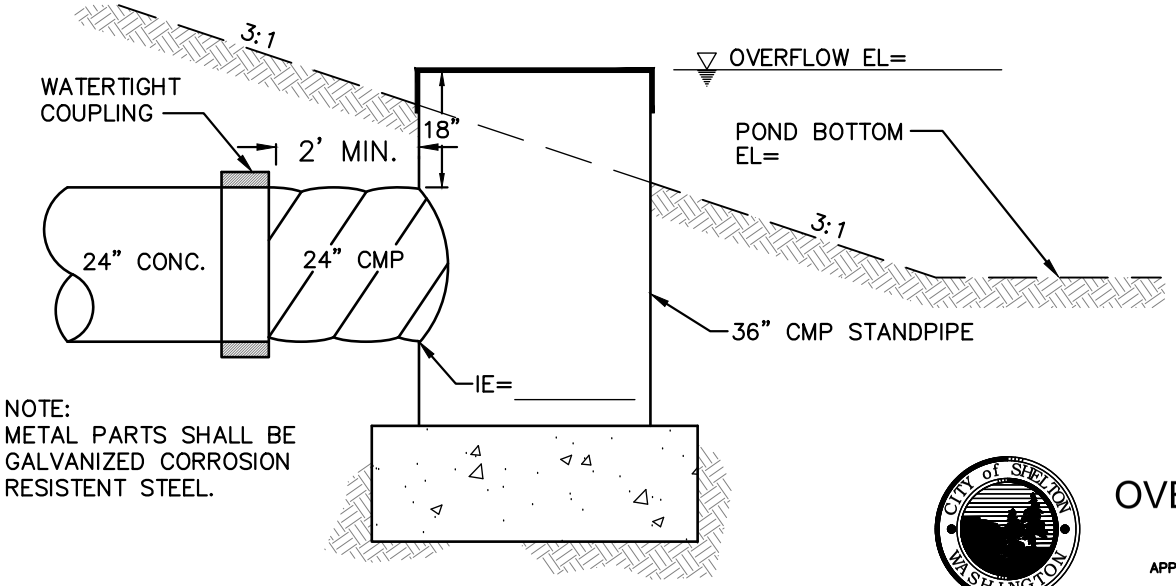
1/2019	GS	NTS	SD-10A



PLAN VIEW



NOTE:
METAL PARTS SHALL BE GALVANIZED CORROSION RESISTENT STEEL.

SECTION VIEW

"Building A Stronger Community TOGETHER"

OVERFLOW STRUCTURE DETAIL

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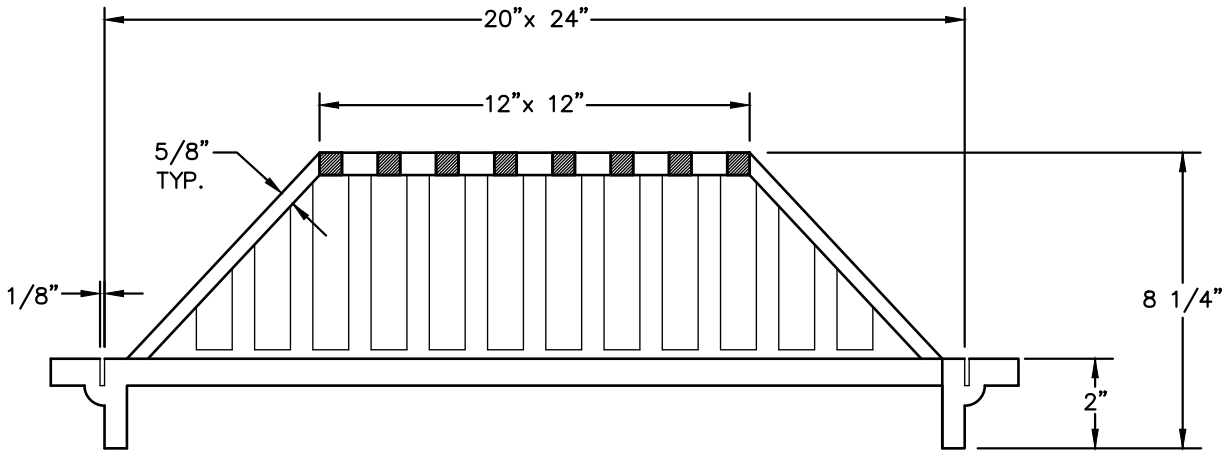
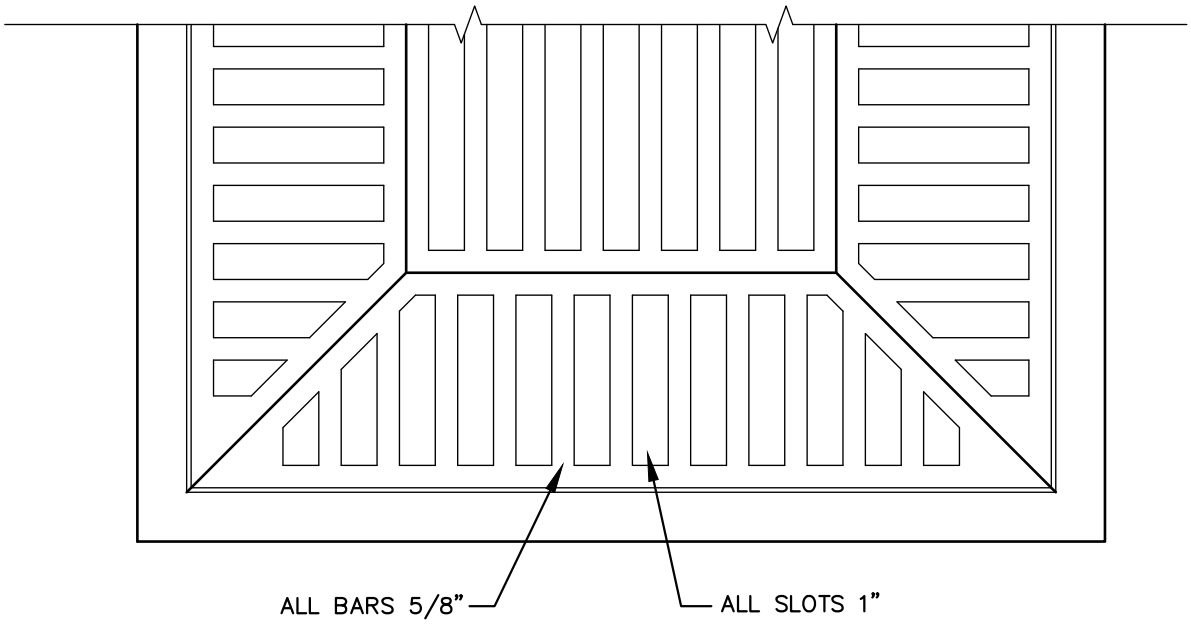
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-11



NOTES:
1. ALL MATERIAL FOR GRATE SHALL BE DUCTILE IRON, ASTM A536 GR.80–55–06
2. GRATE SHALL BE OLYMPIC FOUNDRY MODEL No. SM60BH OR EQUAL.
3. GRATE SHALL LOCK TO FRAME.



* FOR TYPE 1 CATCH BASIN

"Building A Stronger Community TOGETHER"

SQUARE BEEHIVE DRAIN GRATE*

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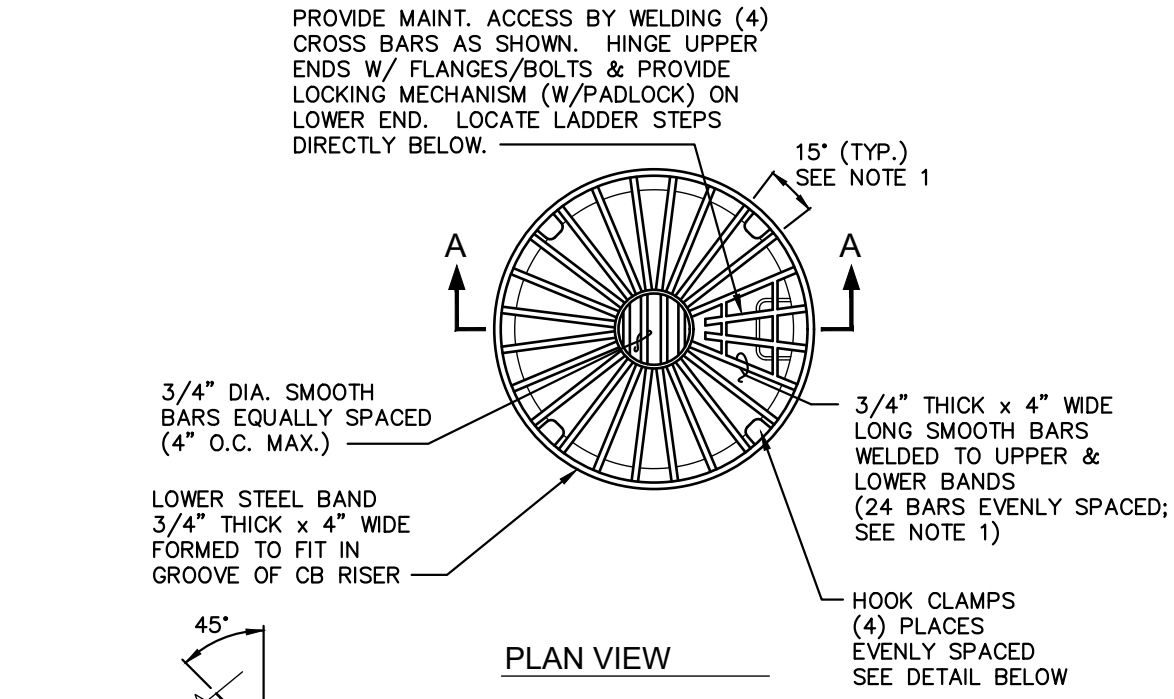
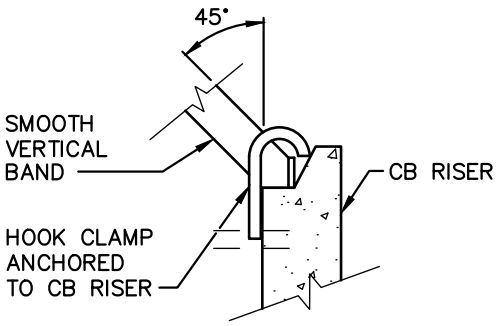
PUBLIC WORKS DIRECTOR

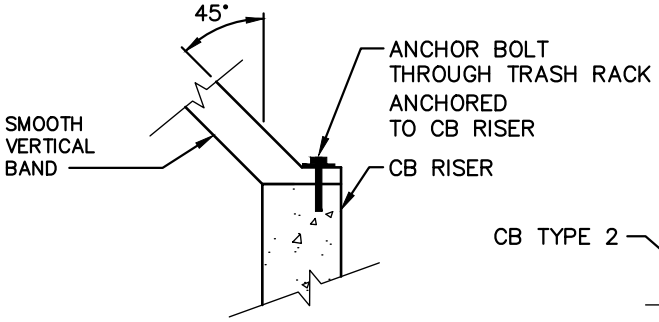
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-12



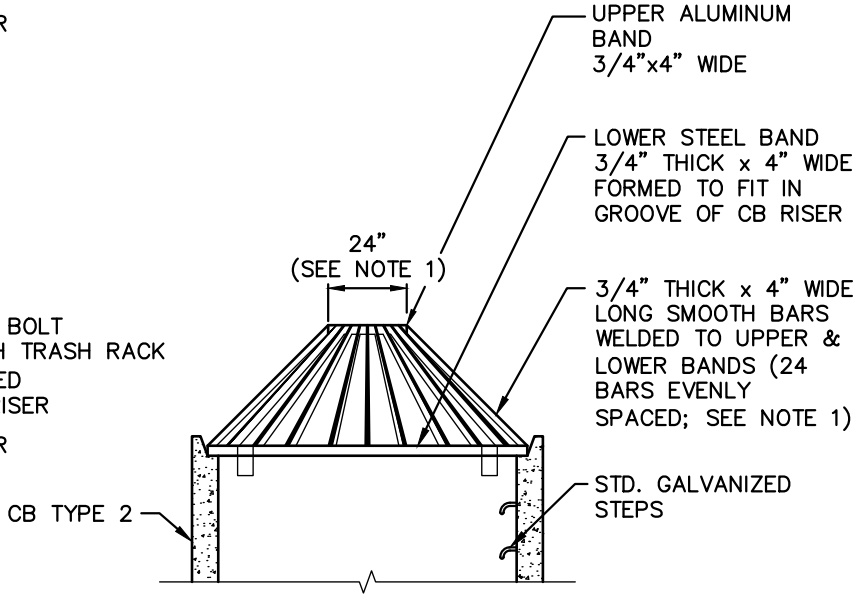
PLAN VIEW



HOOK CLAMP DETAIL



ALTERNATE RACK CONNECTION DETAIL



SECTION A-A

NOTES:

1.) DIMENSIONS ARE FOR INSTALLATION ON 54" DIA. CB'S, ADJUST DIMENSIONS TO MAINTAIN 45° ANGLE ON "VERTICAL" BARS AND 4" O.C. MAX. SPACING OF BARS AROUND LOWER ALUMINUM BAND, WHEN VERTICAL BAR SPACING EXCEEDS 4" O.C. ADD CONCENTRIC HORIZONTAL RINGS, SPACED 4" O.C. TO THE STRUCTURE.

2.) METAL PARTS: METAL BARS: 6061 T.6. ALUMINUM ALLOY.

3.) THIS DEBRIS BARRIER IS ALSO RECOMMENDED FOR USE ON THE INLET TO ROADWAY CROSS-CULVERTS WITH HIGH POTENTIAL FOR DEBRIS COLLECTION (EXCEPT ON TYPE 2 STREAMS).

CITY of SHELTON WASHINGTON
"Building A Stronger Community TOGETHER"

CATCH BASIN, TYPE 2 w/ BIRD CAGE TRASH RACK

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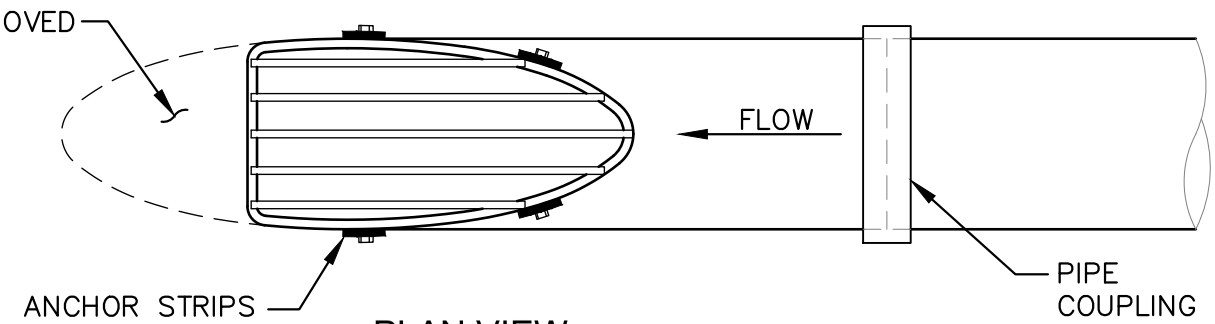
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-13

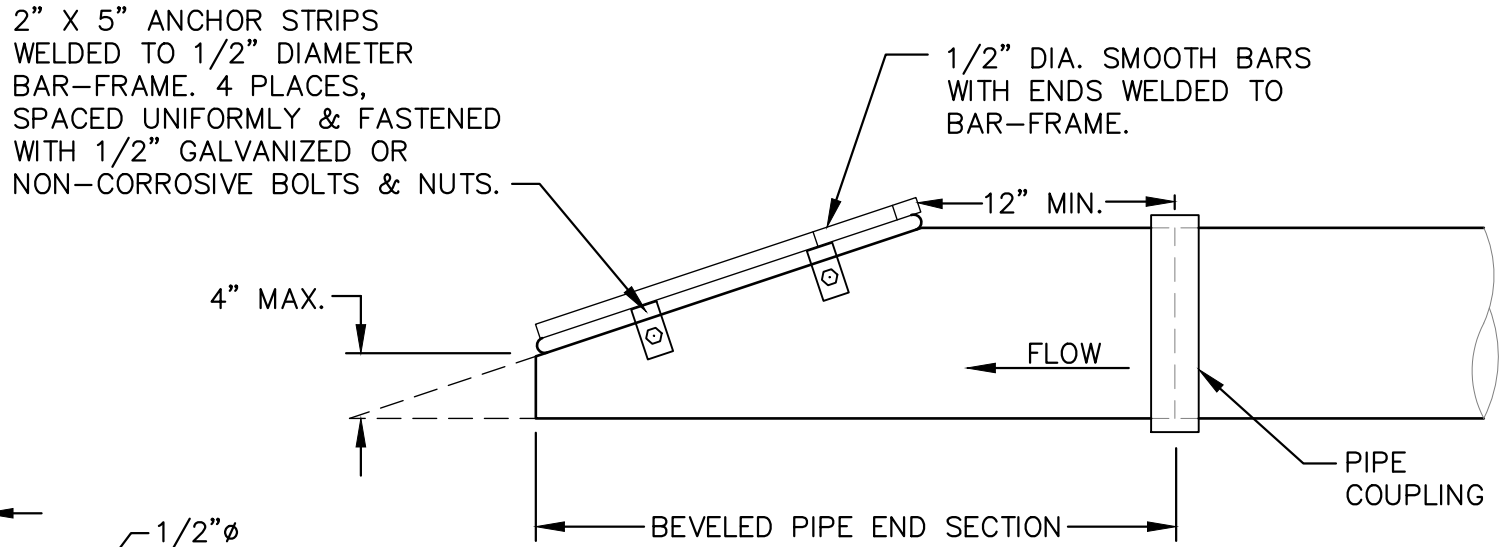
NOTE:

ALL STEEL PARTS MUST BE GALVANIZED.



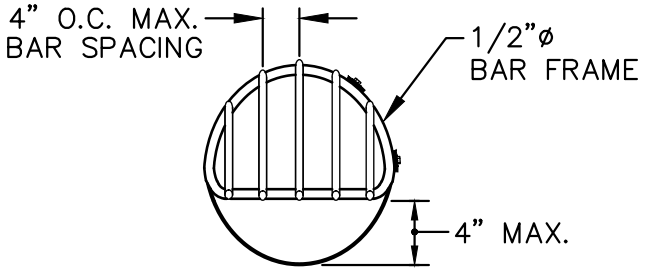
PLAN VIEW

NTS



SECTION VIEW

NTS



END VIEW

NTS

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DEBRIS BARRIER DETAIL

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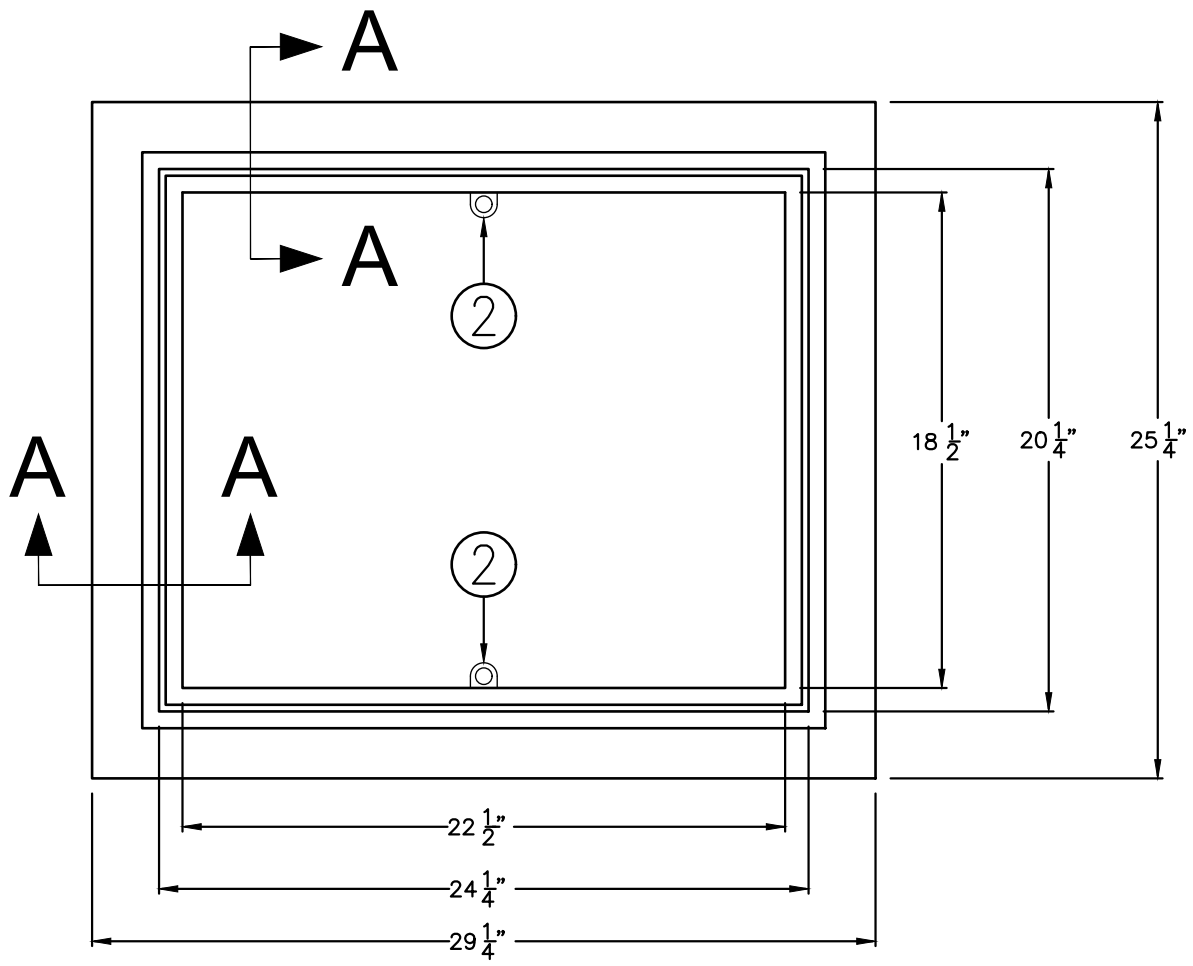
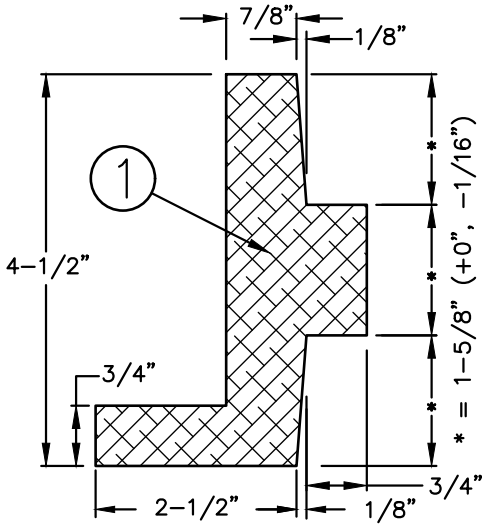
1/2019	GS	NTS	SD-14



TOP VIEW



SECTION A-A

NOTES:

1. MATERIAL USED SHALL BE CAST IRON PER ASTM-A48, CLASS 30. FRAME SHALL HAVE A BITUMINOUS COATING APPLIED.
2. WHEN A LOCKING GRATED OR COVER IS REQUIRED. THE FRAME SHALL BE FABRICATED SO AS TO ACCEPT TWO (2) 5/8" STAINLESS STEEL SOCKET HEAD CAP SCREWS OF GRATE OR COVER.

SPECIAL NOTE:

CATCH BASINS AND GRATES TO CONFORM TO WSDOT STANDARD PLANS. VERIFY TYPE W/ CITY ENGINEER.

"Building A Stronger Community TOGETHER"

FRAME FOR GRATE OR SOLID COVER

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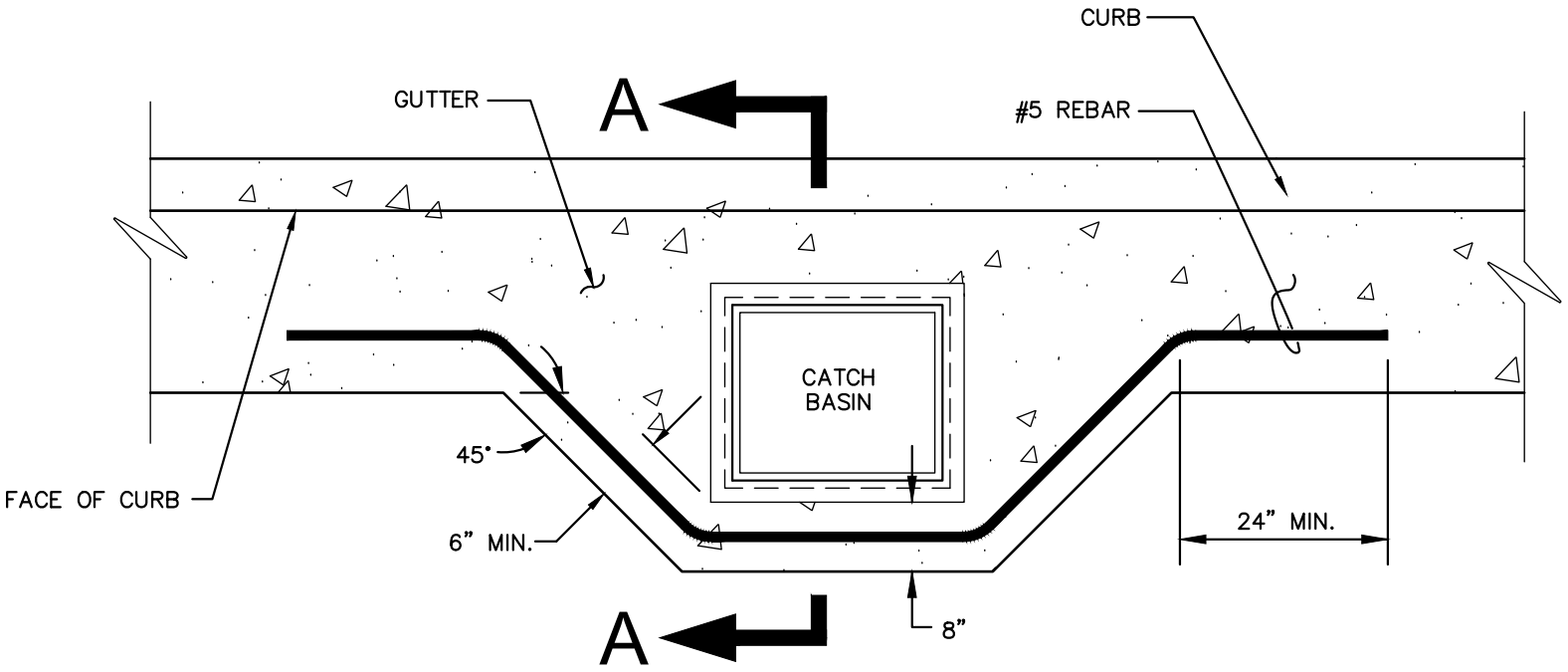
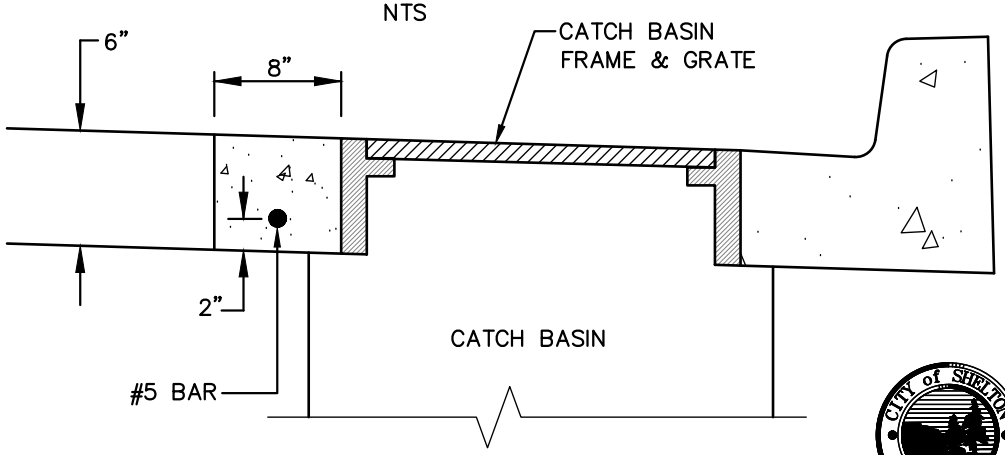
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-15



PLAN VIEW

NTS



SECTION A-A

NTS

"Building A Stronger Community TOGETHER"

RECESSED GUTTER DETAIL

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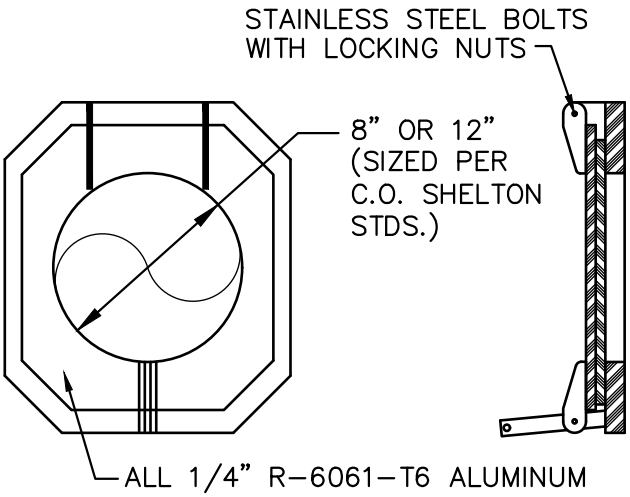
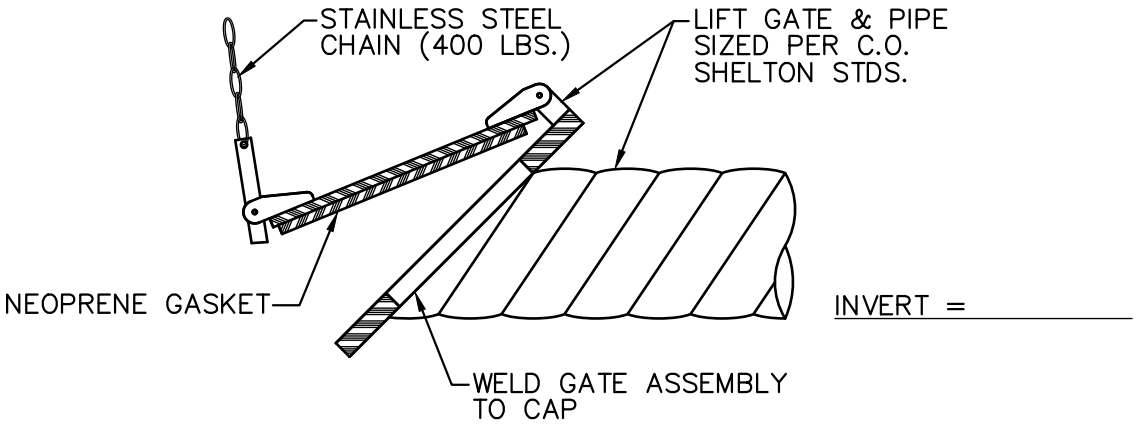
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-16

NOTES:

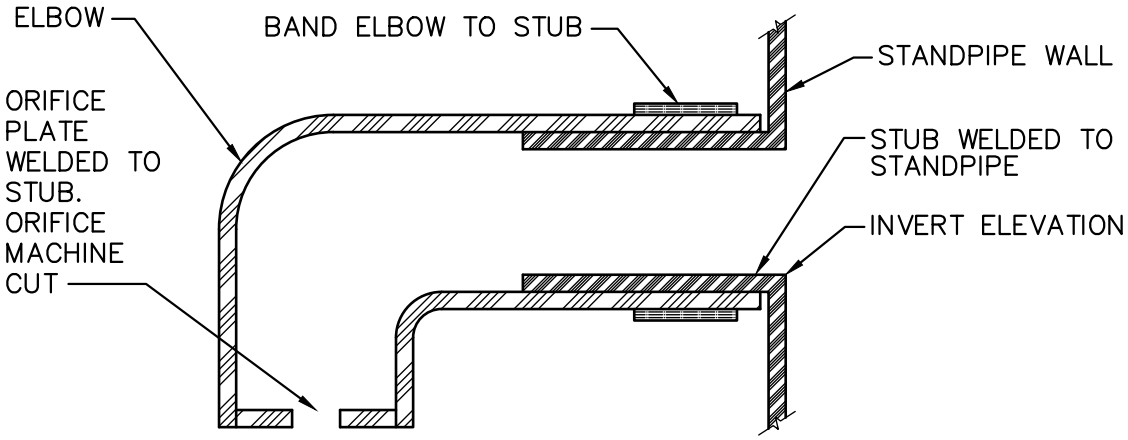
LIFT GATE SHALL BE CONSTRUCTED OF: 1/4" R–6061–T6 ALUMINUM WITH CLOSED CELL NEOPRENE PER ASTM 1056– 67 CHEMICAL RESISTANT (OIL & GREASE). OZONE RESISTANT, 67° TO +250° F SERVICE TEMPERTURE.



LIFT GATE DETAIL



LIFT GATE ASSEMBLY



ALL PARTS TO BE R–6061–T6 ALUMINUM

SECONDARY ORIFICE DETAIL

"Building A Stronger Community TOGETHER"

LIFT GATE ASSEMBLY & SECONDARY ORIFICE DETAILS

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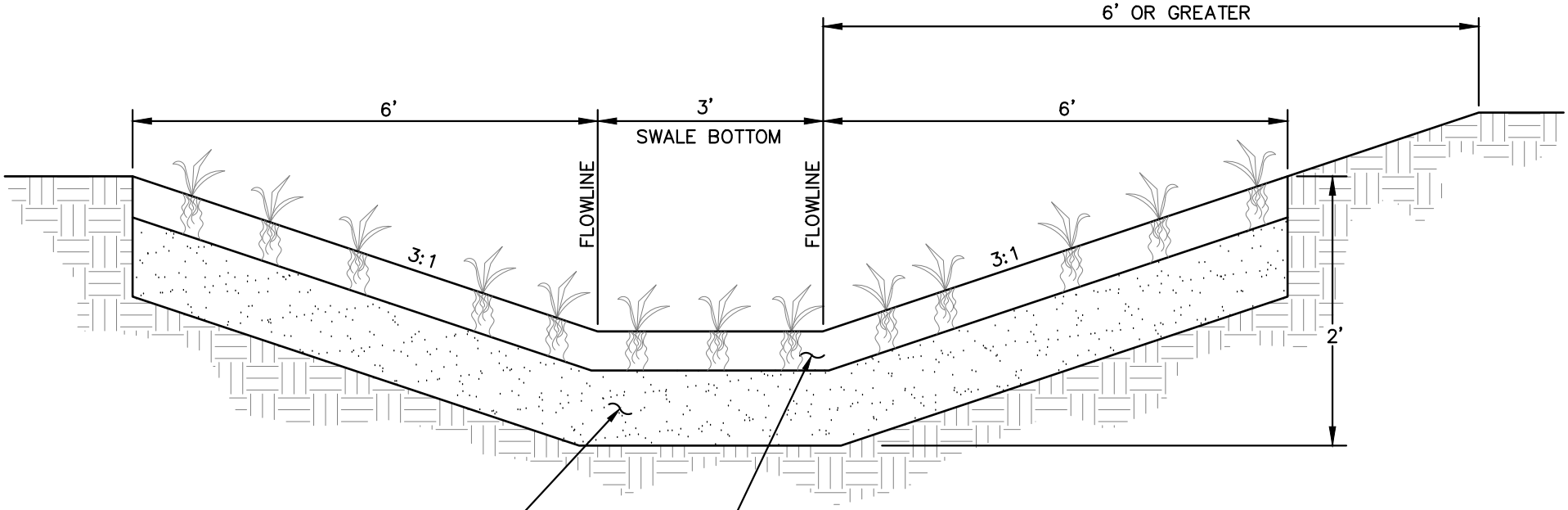
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-17



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BIOFILTER SWALE DETAIL

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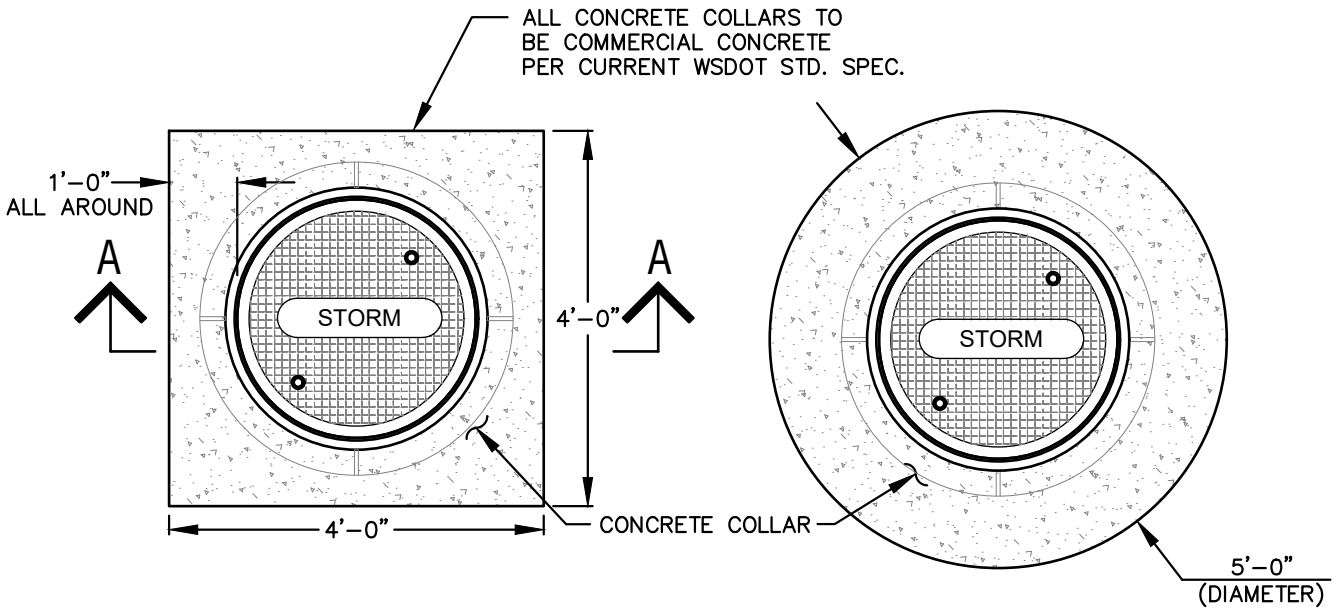
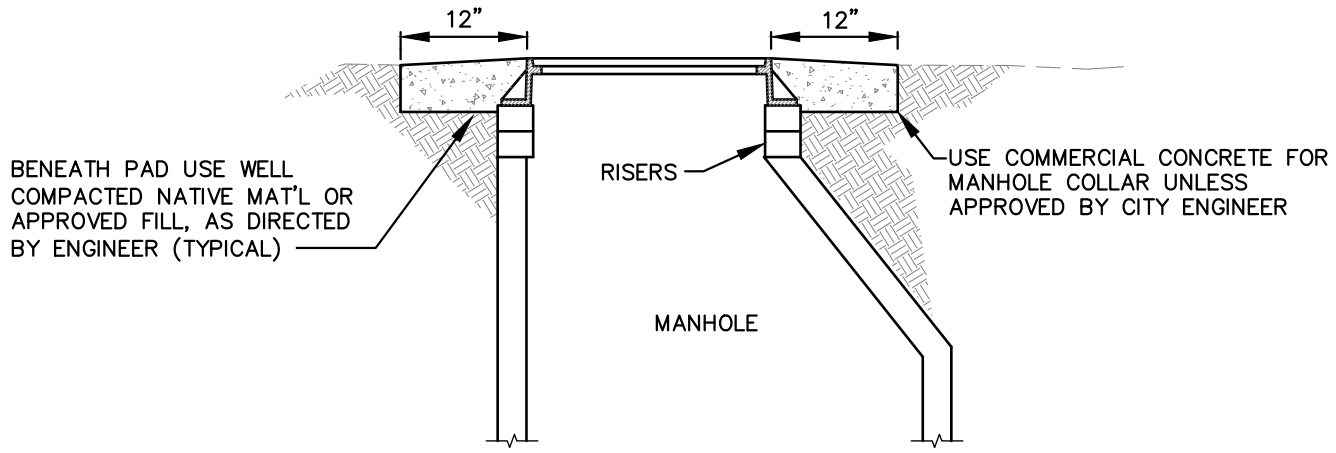
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-18



CATCH BASIN TYPE 2 RING &
COVER W/ CONCRETE COLLAR
NTS



SECTION A-A
NTS

INSTALLATION NOTES

1. SECURE RING & COVER TO MANHOLE RISER USING APPRV'D GROUT AS LISTED BELOW.
2. MUST INSTALL MIN. OF 4" OF ADJUSTMENT RINGS (RISERS).
3. ONLY NON–HINGED MANHOLE COVERS IN NON–PAVED AREAS SEE DETAIL SD–10A. SEE DETAIL SD–10 FOR PAVED AREAS.
4. PATCH ALL VOIDS AROUND PIPES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON–SHRINK PRECISION GROUT–PRODUCT NO. 1585–00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244–56 –81 OR AN APPROVED EQUAL.
5. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
6. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

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CATCH BASIN TYPE 2 SURFACE RESTORATION WITHIN RIGHT OF WAY

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CRAIG GREGORY
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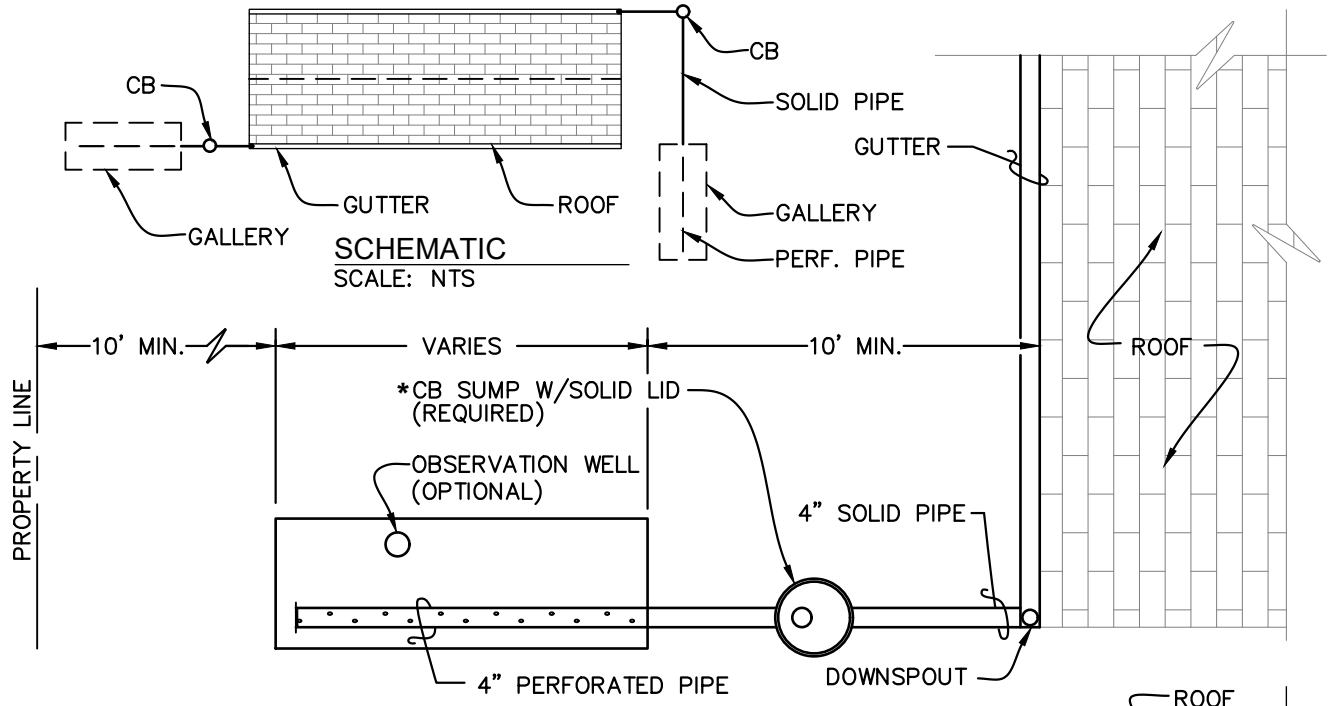
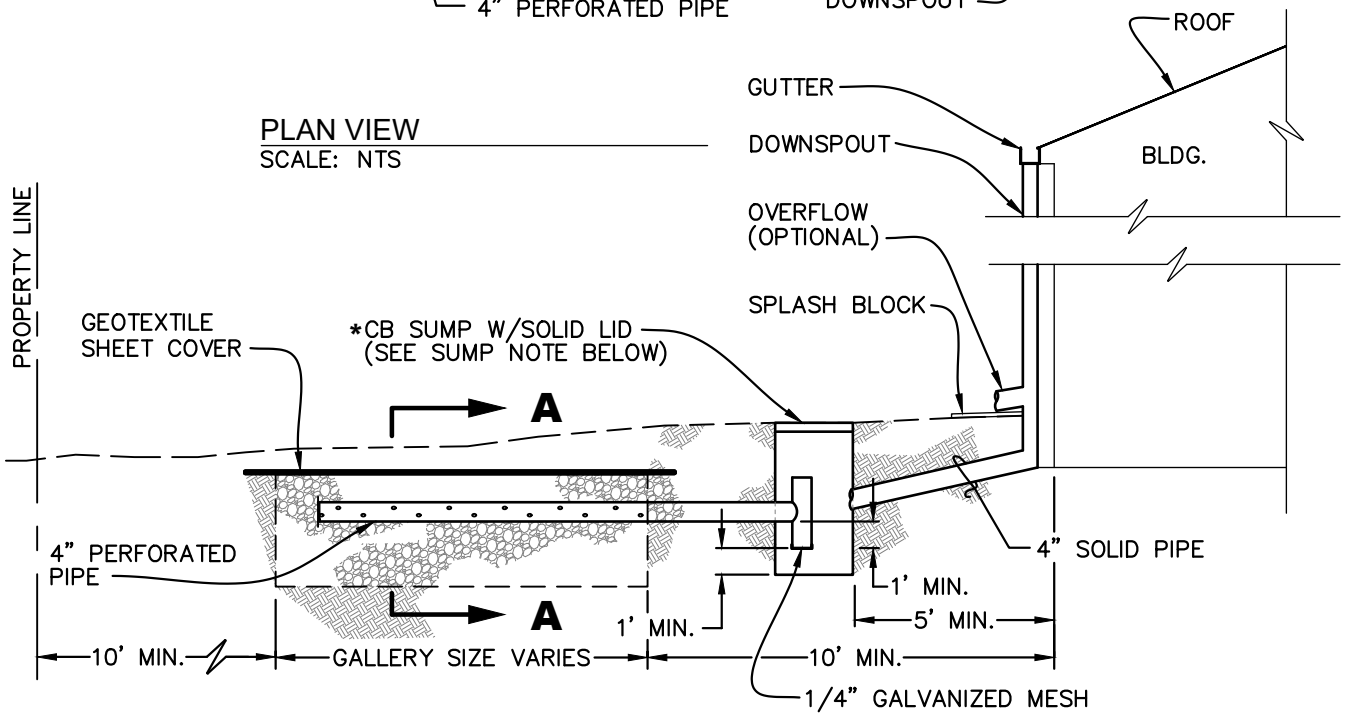
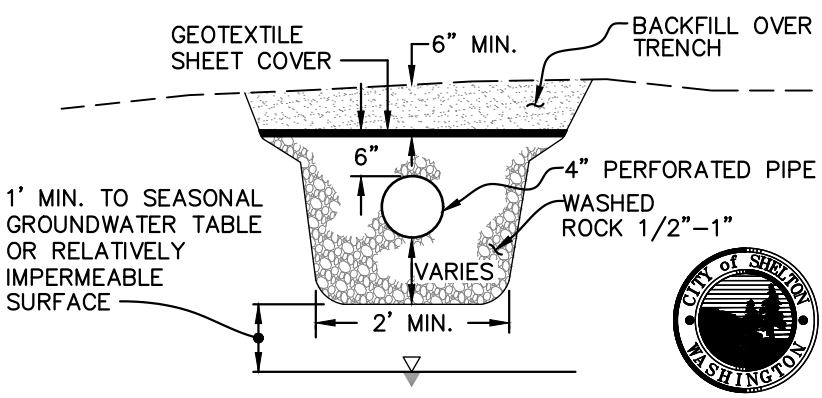
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-19







*SUMP NOTE

A SUMP IS A REQUIRED ITEM.
HP SUMP 1830
18"x30" SUMP WELL CORRUGATED POLY HANCOR CA-SWO-18 OR EQUIVALENT

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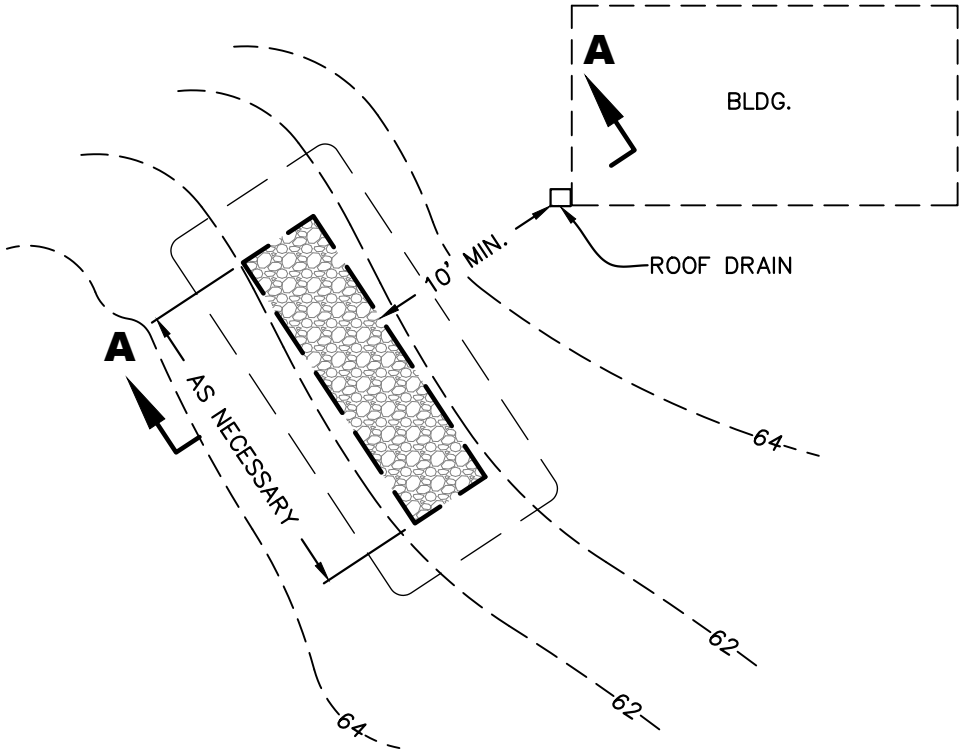
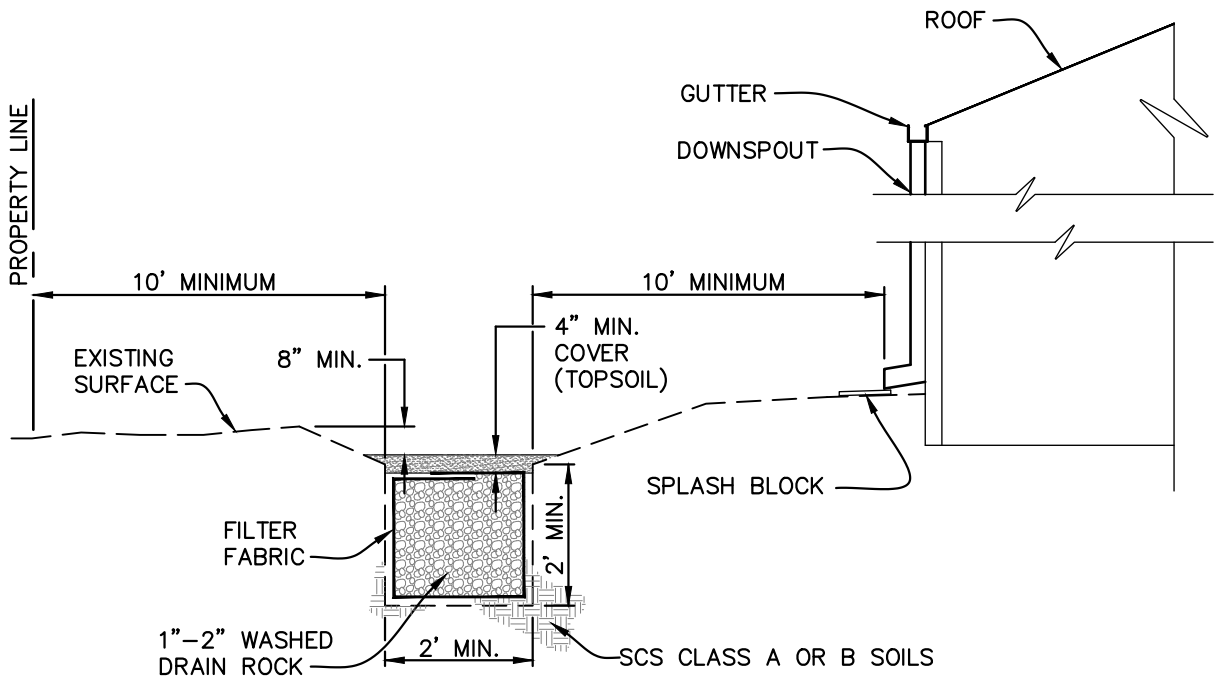
INFILTRATION GALLERY

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-20



PLAN VIEW



SECTION A-A

NOTE:

FOR USAGE ONLY WHEN AUTHORIZED BY THE CITY ENGINEER AND IF SIZE OF ROOF AREA IS LESS THAN 1,000 SF.

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ALTERNATE #1 ROOF DRAIN DRYWELL

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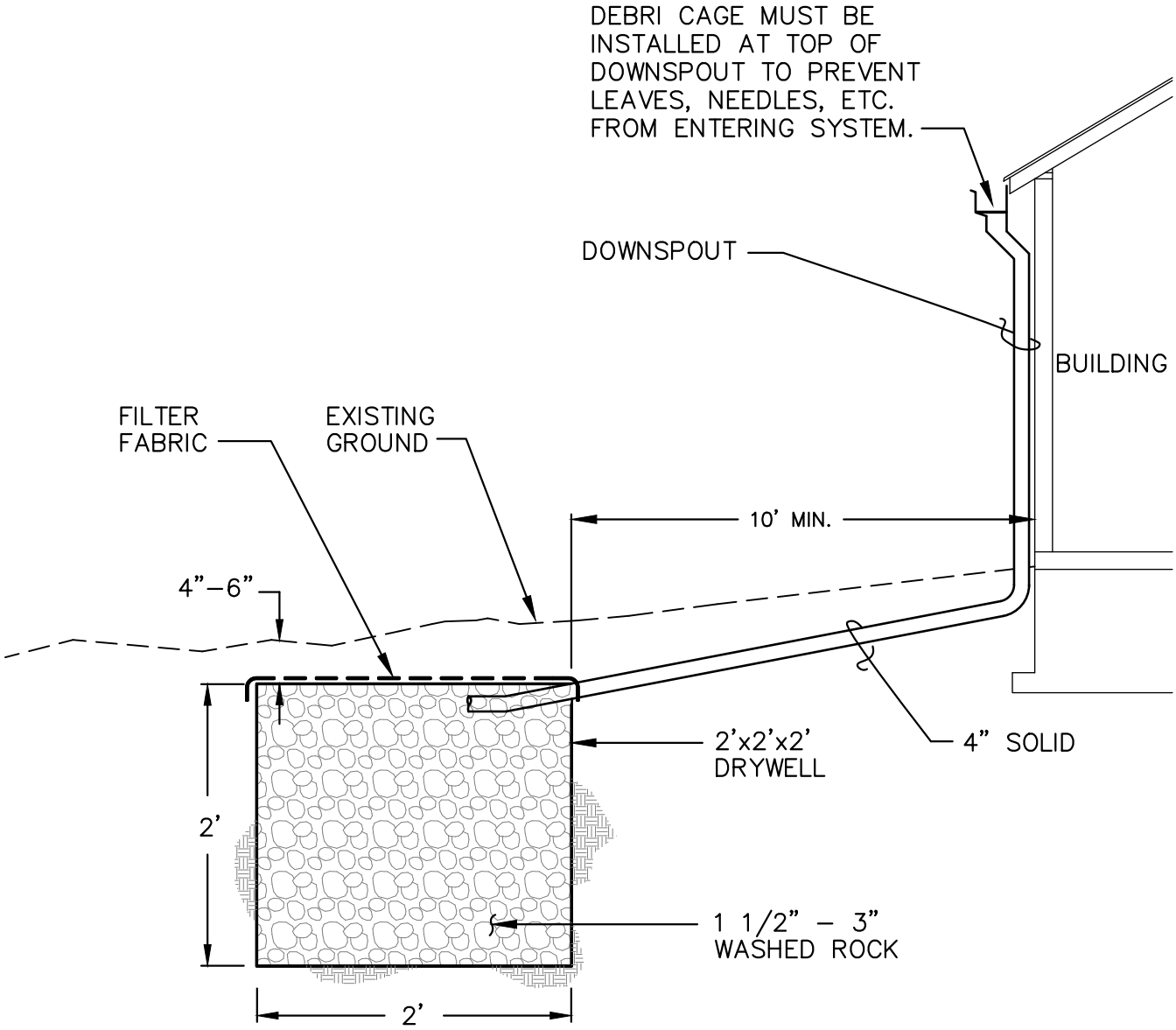
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-21



NOTE:

FOR USAGE ONLY WHEN AUTHORIZED BY THE CITY ENGINEER AND IF SIZE OF ROOF AREA IS LESS THAN 1,000 SF.

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ALTERNATE #2 ROOF DRAIN DRYWELL

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DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-22

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DETAIL TITLE

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"Building A Stronger Community TOGETHER"

DETAIL TITLE

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DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SD-24

C H A P T E R 4

4.000 WATER

4.010 Water System Alterations, Extensions and Connections

To allow the City to provide timely assistance and advice, anyone who wishes to alter, extend or connect to the City's water system should contact the City as soon as possible. Any alteration, connection and/or extension of the public water supply and distribution system must be approved by the City of Shelton. Proposed alterations, connections and/or extensions must conform to Department of Health (DOH), and *Comprehensive Water System Plan* requirements and City Ordinances.

In the case of development within the corporate City limits on existing lots, or on new lots or sites created by subdivisions desiring a connection to City water or requiring fire flows, the owners of each lot of parcel shall, in conjunction with an application for a building permit, apply for connection to be made at their own expense between the City's water system and each premises, building or structure requiring a building permit. Where the property abuts a public right-of-way or easement, extension of the water main shall be required. Such extension(s) shall be to and across the full width of the property served with water unless otherwise approved by the City. For corner lots, the extension shall be to the middle of the adjacent roadway intersection.

In planning and designing for any alteration, connection and/or extension, it is the Engineer's responsibility to see that adequate water for both domestic use and fire protection is attainable. The proposed plans must show how water will be supplied and whether adequate water pressure will be available in case of fire. An analysis of the water supply and distribution system may be required if it appears that the system might be less than adequate.

Any alteration, extension or connection to the City water system, or any plumbing in a residential or nonresidential facility providing water for human consumption that is connected to the City system shall be lead-free. With respect to solders and flux, lead-free shall mean no more than 0.2% lead, and no more than 0.89% lead with respect to pipes and pipe fittings. (After 01/01/2014, lead-free shall mean zero parts lead for all solders, flux, pipes, and pipe fittings).

The design of any water system alteration/extension/connection shall conform to these City *Standards* and any applicable City ordinances as set forth herein. The layout of extensions shall provide for the future continuation and/or 'looping" of the existing system, as determined by the City. When determined to be applicable by the City due to topography, existing and/or proposed land uses, Comprehensive Plan and other factors, installation of an appropriately-sized water main across the full width of the property may be required.

All residential dwelling units, commercial and industrial complexes shall have at least one water meter installed per separate building. All duplexes shall have two water meters installed. All multi-dwelling units with three or more residential dwelling units shall require a master meter. Master meters may be allowed for properties under one ownership at the Public Works Director approval. All appropriate cross connection control devices must be installed.

Prior to the installation of any water meters, all public water system improvements must be completed and approved by the City, including granting of right-of-way or easements and the payment of all applicable fees. Issuance of building permits for new construction of single family subdivisions shall not occur until final City approval is given.

For commercial projects, building permits may be issued upon completion and acceptance of the required fire protection facilities. A financial guarantee in accordance with Chapter One of these *Standards* will be required for the remaining water system improvements. The Certificate of Occupancy will not be issued until final City approval of all improvements.

4.020 Water Main Design Standards

Water mains shall be sized to provide adequate domestic flow, plus fire flow at the required residual pressure, as required by the current edition of the *Washington State Water System Design Manual* and the *Uniform Fire Code.* Fire flow requirements will be determined by the City; however, the quantity of water required will in no case be less than 1000 GPM at 20 psi residual for all other occupancies except UBC Class U. Check with the City for Class U requirements.

The minimum water main size shall be 8 inches diameter. If fire protection requirements are met, the City may approve alternate

pipe sizes (i.e., cul-de-sac). Larger size mains are required in specific areas as outlined in the *Comprehensive Water System Plan* or as necessary to meet fire flow requirements and future service areas. Water supply and fire flow quantities will dictate water main looping requirements. In any case, water mains longer than 1,200 lineal feet shall be looped.

All pipe for water mains and appurtenances shall be ductile iron Class 52 (Class 235 C-900 may be used if approved by the City) and comply with the requirements for water distribution material (Section 9-30 of the WSDOT Standard Specifications), EXCEPT: Steel pipe shall not be approved. In addition: In areas of high groundwater (as typically found in Sewer Basins 1, 2, and 3) or reactive soils, Ductile Iron Pipe conforming to AWWA C 151, Class 52 pipe and/or polyethylene encasement shall be installed.

The minimum cover for all water mains from top of pipe to finish grade shall be 36 inches unless otherwise approved by the City. If the pipe is offset to the edge of the road, the actual roadway cross grade shall be projected out and used to measure cover to top of pipe. This will require more fill over the pipe in a fill section but allows the pipe adequate cover in the event of future roadway cuts or widening. If the pipe is located under a ditch or on the "downhill" slope of the roadway cross section, the minimum cover over the pipe shall be 36 inches or as otherwise approved by the City. All materials shall also be installed in conformance with the manufacturer's written recommendations.

The maximum cover for all water mains shall be 42 inches at top of pipe unless otherwise approved by the City. See Standard Detail W-06.

4.030 Hydrant Design Standards

The pipe from the main line to the fire hydrant shall be ductile iron cement mortar lined Class 52, no less than 6 inches in diameter.

Fire hydrants shall have two 2-1/2 inch outlets and one 4-1/2 inch pumper port outlet fitted with a 4 inch Stortz adapter. All outport threads shall be Shelton Standard No. 475 thread. The valve opening shall be 5-1/4 inch diameter. The hydrant shall have a positive and automatic barrel drain and shall be of the "safety" or breakaway style.

Hydrants shall be manufactured by either Mueller or M&H. All new hydrants shall be bagged until all new water system construction is approved by the City.

The following guidelines shall apply for hydrant number and location, unless otherwise approved by the City:

A. A minimum of one hydrant shall be installed at all intersections.

B. Hydrant spacing shall conform to the requirements of the International Fire Code, but in no instance stall exceed 600 feet.

C. Hydrants located in cul-de-sac or dead end areas either by design, topographic or manmade feature that prohibit straight line distance measurement, shall be located to serve no more than 60,000 square feet of land area or have a maximum travel distance of 300 feet. Where a cul-de-sac or dead end exceeds 300 feet, a hydrant shall be required.

D. When any portion of a proposed non-residential building is in excess of 150 feet from a water supply on a public street, on-site hydrants may be required by the City. Such hydrants shall be located per the *Standards* and easements for such hydrants shall be granted to the City.

E. A scaled down plan view of the proposed water system shall be included on the plans. The scale shall be appropriate to show the entire proposed system. This plan view shall show the location of all the proposed hydrants plus the location of the appropriate existing hydrants adjoining the project. If the project only includes the addition of one or two new hydrants, the location of at least two existing hydrants in the project vicinity need to be shown on the plan view.

F. Fire hydrants shall be set as shown in Standard Detail W-08.

   For requirements regarding use, size and location of a fire department connection (FDC) and/or post indicator valve, contact the City Fire Department. Location of the FDC shall be shown on the plans.

   A Water Usage Permit is required for the use of hydrants; contact the City about permit procedures and fees.

Where needed, the City may require hydrants to be protected by two or more posts, six inches in diameter by five feet in height, and made of either reinforced concrete or steel. Posts shall be placed so that they do not interfere with the operation of the hydrant or cause obstruction of the ports. See Standard Detail W-09.

4.040 Valve Design Standards

All valves and fittings shall be ductile iron with ANSI flanges or mechanical joint ends. Valves shall be installed in the distribution system at sufficient intervals to facilitate system repair and maintenance, but in no case shall there be less than one valve every 1,000 feet. Generally, there shall be two valves on each tee and three valves on each cross. Specific requirements for valve spacing will be made during plan review.

A. Gate Valves: The design, materials and workmanship of all gate valves shall conform to AWWA C515-80, latest revision. Gate valves shall be resilient wedge, non-rising stem (NRS) with two internal O-ring stem seals. Gate valves shall be Mueller, M & H, Kennedy, Clow R/W, Waterous Series 500 or an approved equal. Gate Valves shall be used on all water mains, or as otherwise approved by the City.

B. Butterfly valves may be used on all lines 12 inches and larger except when a tapping valve is required, when approved by the Public Works Director. Butterfly valves shall conform to AWWA C504, Class 150B, with cast iron short body and O-ring stem seals. Butterfly valves shall be Mueller, Linseal III, Kennedy, Pratt Ground Hog, Allis Chalmers, or an approved equal.

C. All valves shall be installed with a valve box with a lug type cover from Olympic Foundry Inc., or an approved equal per detail W-07 and W-07A.

D. An operating nut extension shall be installed when the ground surface is more than 36 inches above the valve-operating nut. The operating nut extension shall extend into the top section of the standard valve box and shall clear the bottom of the valve box lid by a minimum of 10 inches. When an operating nut extension is required, it shall be furnished and installed by the contractor. See Note: Valve Stem Extension Legend on Standard Detail W-07.

4.050 Water Service Connections

For new mains extending across the frontage of lots not a part of the project, service connections shall be provided as necessary for service to lots. At the time of water main construction, all water service connections required by the approved plans shall be installed by the contractor. All service taps shall be shown on the plans. See Standard Details W-01 through W-05. After the water service lines have been constructed, inspected, tested and approved by the City, the property owner may apply for a water meter. The Contractor will install water meters 1 ½" and larger after a utility application has been made and all related fees have been paid. The City will lock off meter until approved for service. All water services between the City main and the meter are the property of the City.

When water is desired to a parcel fronting an existing main but not served by an existing meter, a utility application must be made to the City. Upon approval of the application and payment of all applicable fees, the Contractor will install the service lateral, meter box and setter, as necessary.

Service lines shall be as specified herein. Service lines shall be installed at a 45-degree angle off the top of the water main. No glued joints will be accepted.

All service lines up to and including two (2) inches in diameter shall be pressure class 200, polyethylene plastic pipe manufactured from all virgin material, category 5, grade P34, Class C high density polyethylene CTS OD ASTM D-2737 SDR 9 PE3408; cell classification 335434C to 355434C from Philips Driscopipe, Superlon Plastics, Type K Copper or approved equal. Stainless steel inserts shall be used with all polyethylene plastic pipe. Service lines larger than 2 inches in diameter shall be as specified in section 4.020. All services shall have a minimum of 20 inches of cover.

Service Saddles shall be ductile iron with stainless steel straps. All saddles shall have rubber gasket and iron pipe threaded outlets.

Corporation stops shall be iron pipe or Mueller CC threads conforming to AWWA C 800 or an approved equal.

When connection to the City of Shelton water system is requested by a customer connected to an existing domestic well, the well must be abandoned per Department of Ecology requirements or a cross connection control assembly must be installed and tested per Section 4.160. This is necessary to assure that an unapproved auxiliary water supply (the customer's well) will not contaminate

the City's water supply. The customer's domestic well may be kept serviceable for irrigation purposes after all cross connection control have been met. No water meter will be installed until a cross connection inspection has been completed to the satisfaction of the City.

Development on new lot created by subdivision and each approved site plan shall have a water service connection to a City main installed.

In single-family subdivision (including mobile home and manufactured home subdivisions), a service shall be provided to each lot or site. If a separate domestic and an irrigation meter are desired at a particular lot or tract, additional services shall be installed.

4.060 Water Main/Sanitary Sewer Crossings

When water mains and sanitary sewer mains cross, the water main shall be above the sanitary sewer main. The contractor shall maintain a minimum of 18 inches of vertical separation between sanitary sewers and water mains. The minimum cover of 42 inches for water mains may be reduced to 24 inches, in accordance with the pipe manufacturer's written recommendations, and upon approval by the City, to provide for as much vertical separation as possible.

The longest standard length of water pipe shall be installed so that the joints will fall equidistant from any sewer crossing.

In some cases, where minimum separation cannot be maintained, it may be necessary to encase the water pipe and/or the sewer service in pipe or concrete per the State Department of Ecology's *Criteria for Sewage Works Design*. No concrete shall be installed unless specifically allowed by the City.

4.070 Manholes

See Chapter 5 for design, construction and testing requirements regarding manholes.

4.080 Sterilization and Flushing

Sterilization of water mains shall be the responsibility of the contractor and shall be done in accordance with Section 7 of the WSDOT *Standard Specifications for Road, Bridge and Municipal Construction* and in a manner satisfactory to the City, with a

minimum 50mg/L chlorination in accordance with the requirements of the Washington State Department of Health.

At no time shall chlorinated water from the new main be flushed into a body of water. This is to include lakes, rivers, streams, drainage ways, ditches and any and all other waters where fish or other natural aquatic life can be expected.

When a chlorine concentration has been established throughout the line, the valves shall be closed and the line left undisturbed for a minimum of 24 hours. The line shall then be thoroughly flushed and water samples taken by the City at least 24 hours after flushing and disinfecting for testing by an approved laboratory. Should the initial treatment result in an unsatisfactory bacteriological test, the original chlorination procedure shall be repeated by the contractor until satisfactory results are obtained.

4.090 Hydrostatic Tests

Prior to the acceptance of the work, the installation shall be subject to hydrostatic pressure test(s) of 200 psi or twice the line pressure, whichever is greater, for 15 minutes in accordance with Section 7 of the WSDOT *Standard Specifications for Road, Bridge and Municipal Construction*. Any leaks or imperfections developing under said pressure shall be remedied by the contractor. No main shall be hydrostatically tested until the lines are flushed of chlorine. The main shall be tested between valves. Whenever possible, no hydrostatic pressure shall be placed against the opposite side of the valve being tested.

The contractor shall provide all necessary equipment and shall perform all work required to complete the tests. Tests shall be made on the main prior to any service tap. Service taps will be made after the hydrostatic testing of the main and shall be made when the main is at its working pressure. The contractor shall perform the test to assure that the equipment to be used for the test is adequate and in good operating condition and the air in the line has been released before requesting the City to witness the test.

4.100 Air and Vacuum Release Valves

Air and vacuum release valves (ARV) shall be APCO combination air release valve or approved equal. Installation shall be as shown on Standard Detail W-15. The installation shall be set at the high point of the line when required. Where possible, pipes are to be graded to prevent the need for an air release valve.

4.110 Blowoff Assembly

If a fire hydrant is not located at the end of a dead end main, a blowoff assembly shall be required. The pressure rating for blowoff assemblies shall be 200 psi. Blowoff assemblies shall be located near the end of cul-de-sacs when appropriate. Installation shall be as shown on Standard Detail W-11.

4.120 Staking

All surveying and staking shall be performed by a Professional Land Surveyor licensed by the State of Washington. All construction staking shall be inspected by the City prior to beginning construction.

The minimum staking of waterlines shall be as directed by the City or as follows:

A. Stake centerline alignment every 50 feet with cut or fill to invert of pipe maintaining cover over pipe per Section 4.020. Cuts are normally not required when the road grade has been built to subgrade elevation.

B. Stake alignment of all fire hydrants, tees, water meters, setters and other appurtenances and mark cut or fill to hydrant flange finished grade.

Any deviations from these minimum staking requirements shall be approved by the City.

4.130 Trench Excavation and Pipe Laying

Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City in conformance to WSDOT *Standard Specifications*. Debris resulting from the clearing and grubbing shall be disposed of by the contractor in accordance with the terms of all applicable permits. Track mounted equipment shall not be allowed on paved City streets and public rights-of-way outside of the approved project boundaries and gravel streets without prior approval by the City.

The contractor shall perform all excavation in whatever substance is encountered. Boulders, hardpan, clay rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below water main grade. Where materials are removed from below water main grade, the trench

shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.

Trenches shall be excavated to the line and depth designated by the City to provide a minimum of 36 inches cover over the pipe. The trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space and in compliance with all State and Federal guidelines.

Surface water shall be diverted so as not to enter the trench. Trench water or other deleterious materials shall not be allowed to enter the pipe at any time. The contractor shall maintain sufficient pumping equipment on the job to ensure that these provisions are carried out. Provisions shall be made to prevent floating of the pipe.

The contractor shall handle all types of pipe in a manner that will prevent damage to the pipe, pipe lining or coating. Pipe and fittings shall be loaded and unloaded using hoists and slings in a manner to avoid shock or damage, and under no circumstances shall pipe be dropped, skidded, or rolled against another pipe.

If the Inspector determines that the contractor's methods are damaging to the pipe, the contractor shall correct the handling methods. All damaged pipe will be rejected, marked as such, placed apart from undamaged pipe, and shall be removed from the site within 24 hours. Pipe shall be stacked in such a manner as to prevent damage to the pipe, to prevent dirt and debris from entering the pipe, and to prevent any movement of the pipe. For public safety, each size of pipe shall be stacked separately.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations, and any pipe or fitting that has been installed with dirt or foreign material in it shall be removed, cleaned and re-laid. At times, when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or by other means approved by the Engineer to ensure cleanliness inside the pipe.

The bottom of the trench shall be finished to grade with hand tools in such a manner that the pipe will be bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to accommodate the joint.

Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflecting the joints. The amount of

deflection at each pipe joint when pipe is laid on a curve shall not exceed the manufacturer's printed recommended deflections. When rubber gasketed pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose.

When the contractor is trenching and shoring adjacent to an existing water main or any other underground utilities or public safety concerns exist, the City may require more stringent trenching standards. Trenching, shoring and pipe laying shall be in conformance with Washington Industrial Safety and Health Administration (WISHA), Washington Department of Labor and Industries (L&I), the Office of Safety and Health Administration (OSHA) Safety Standards and any other agency with jurisdiction.

4.140 Casing

Steel casing pipe shall be schedule 20 steel, ductile iron, or approved equal. Spacers shall be Cascade style CCS with 8 inch runners as available from Cascade Waterworks. Casing pipe and spacers shall be sized for the pipe being installed. Install a minimum of three spaces per section of pipe.

4.150 Irrigation

All irrigation systems located within the public right-of-way shall be designed by a State of Washington registered professional engineer or licensed landscape architect, and approved by the City.

The contractor shall be responsible for all installation, repair, testing and operation of the irrigation water system until all work is complete and the system has been certified by the engineer or landscape architect who prepared the approved plans. The engineer or landscape architect shall be responsible for inspection of the irrigation system during construction and testing of the system operations following the completion of construction. Thereafter, it is the responsibility of the property owner to have the cross connection control assembly tested annually by a certified backflow assembly tester, and to submit the test results to the City.

The engineer or landscape architect shall provide the City with a letter bearing his/her professional registration and certifying the irrigation system as complete and constructed and all cross

connection control requirements per Section 4.160 have been complied with in full accordance with the plans approved by the City.

4.160 Cross Connection Control

Testing for cross connection control shall be the responsibility of the contractor. A certified backflow assembly tester shall perform all cross connection control tests, and the test results shall be submitted to the City.

The installation of cross connection control assemblies is required to protect the existing water system and users from possible contamination, new commercial buildings are required to install RPBA and shall comply with the requirements of the City of Shelton Cross Connection Policy, the most current edition of the AWWA *Cross Connection Control Manual, the USC Manual of Cross Connection Control,* and the *PNWS Cross Connection Control Manual*. Thereafter, it is the responsibility of the property owner to have the cross connection control assembly tested annually by a certified backflow assembly tester, and to submit the test results to the City. See Standard Details W-17 through W-26.

4.170 Thrust Blocking

The locations of thrust blocking shall be shown on the plans. Thrust blocks shall be designed for the test pressures set forth in the *Standards.*

Thrust block concrete shall be commercial concrete at least 3000 psi compressive strength, poured against undisturbed earth. A plastic barrier shall be placed between all thrust blocks and fittings. Designed and approved joint restraining systems must include a combination of thrust blocking and RomaGrip pipe restraints manufactured by ROMAC or approved equal. Restraining joint brand, type, and size shall be specified on the plans. See Standard Details W-12, W-13, and W-14 for examples.

4.180 Backfilling

Backfilling and surface restoration shall closely follow the installation of pipe so that not more than 100 feet of trench is left open at any time during construction without approval of the City. When public safety concerns exist, the City may require more stringent backfilling standards.

Selected backfill material shall be placed and compacted around and under the water mains with hand tools to a height of 6 inches above the top of the water main.

The remaining backfill shall be compacted to 95 percent of the maximum density in the roadway prism and to 90 percent outside the roadway prism and shall be satisfactorily demonstrated to the City by density tests per the WSDOT *Standard Specifications for Road, Bridge and Municipal Construction*. If native material is not suitable for backfill, the City will order the placing of pipe bedding around the water main conforming to the *Standard Specifications.*

Where governmental agencies other than the City have jurisdiction over roadways, the backfill and compaction shall be done to the satisfaction of the agency having jurisdiction.

4.190 Street Patching and Restoration

See Chapter 2.190 and 2.200 for requirements trench backfilling, temporary patching, and pavement restoration.

4.200 Watershed and Wellhead Protection Area

A protection area is designated for the City's watershed and each of the City's wells as an irregular boundary determined by topography, waterflow patterns both above and below ground, soil types, flow rates and other criteria. Please contact the City to determine if the proposed project is situated within a watershed or wellhead protection area.

In order to protect the public water supply, the following criteria shall apply to any project or portion of a project that is partially or completely located within a watershed or wellhead protection area.

A. A storm and erosion control plan requiring treatment of stormwater is required. Depending on the individual characteristics of the project, more stringent treatment requirements than those required in the currently adopted Washington State Department of Ecology *Storm Water Management Manual for Western Washington* referenced in Title 13 of the Shelton Municipal Code may be imposed by the City. All storm water shall be directed away from a well.

B. If the project is a subdivision, it must be noted on the face of the plat that the project is located within a watershed or wellhead protection area.

C. All garbage bins and dumpsters shall be covered in a manner that prevents rainwater from entering the containers, and subsequently, the groundwater.

D. In projects where hazardous spill could occur, a spill and containment plan shall be implemented. Depending on the nature of the project, more stringent spill and containment requirements than those in the Washington State Department of Ecology *Storm Water Management Manual for Western Washington* and Title 13 of the Shelton Municipal Code may be imposed by the City.

E. No outside storage or sales of hazardous materials will be allowed within a watershed or wellhead protection area. This includes but is not limited to: industrial chemicals, solvents, petroleum products, pesticides, herbicides, animal wastes, fertilizers and other lawn and garden chemicals.

4.210 Water Main Construction Standards (General Notes) -

In addition to the General Notes in Chapter One, the Engineer shall include the following notes on any plans dealing with water system design.

A. All water mains shall be staked for grades and alignment by an engineering or surveying firm capable of performing such work, in accordance with the Washington Administrative Code (WAC).

B. New and existing valves are to be operated only by City employees.

C. Hydrants shall be bagged until the system is approved after construction. Fire hydrants meeting required fire flows shall be installed, tested, and accepted prior to the issuance of a building permit. A Water Usage permit is required for the use of hydrants; contact the City about permit procedures and fees. A Water Usage permit is valid only at the location specified on the permit. When using the hydrant to fill a vehicle, the vehicle must be equipped with an approved cross connection control device.

D. All lines shall be chlorinated and tested in conformance with Department of Health (DOH) requirements and City *Standards.* An approved dechlorination device shall be used when flushing chlorinated water that will discharge to any body of water. All new water mains and laterals shall include tracer wire.

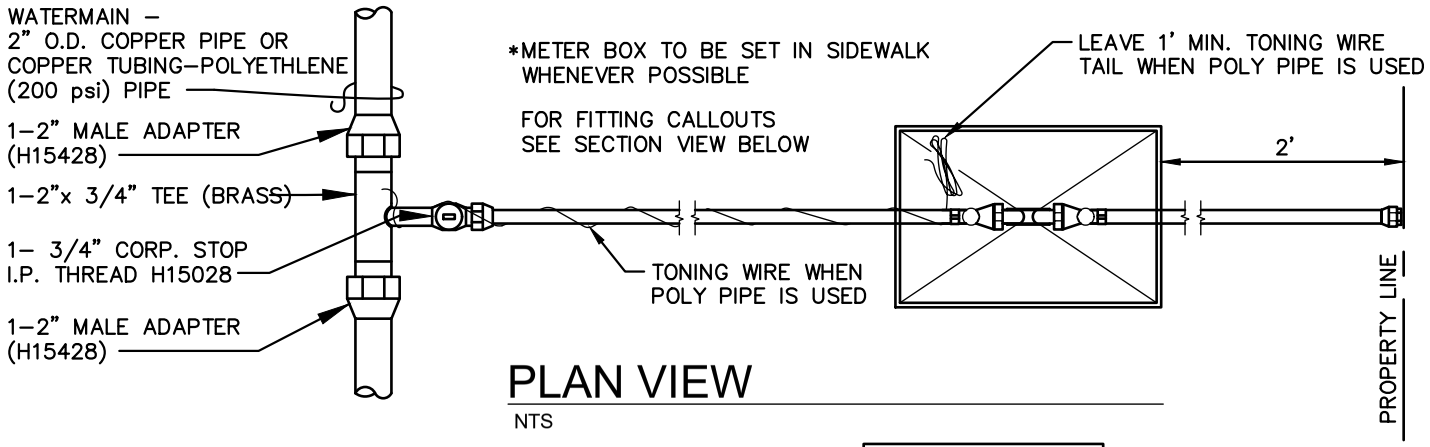
E. The Contractor shall give the City a minimum of 72 hour notice of any planned shutdown to make a connection to an existing water main. Where connections require field verification, connection points will be exposed by the contractor and fittings will be verified 48 hours prior to distributing shutdown notices.

   This includes all cut-ins and live taps. In certain situations, the City may dictate scheduling of water main shutdowns so as not to impose unnecessary shutdowns during specific periods to existing customers. No tap shall be made to an existing main on a Friday without specific approval from the City.

LIST OF DRAWINGS
CHAPTER 4 WATER

TABLE OF CONTENTS

WATER DETAILS



PLAN VIEW

NTS

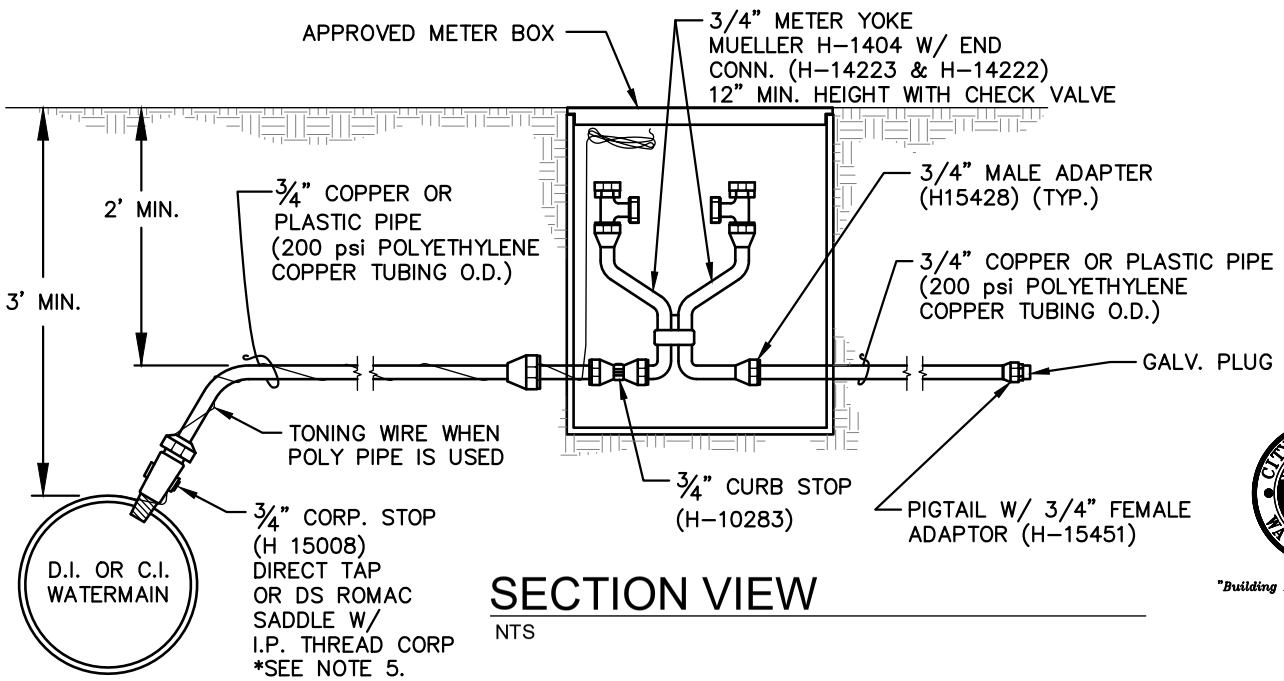
APPROVED METER BOXES:
MID STATES PLASTICS, INC. BCF SERIES BOX W/ CAST IRON READER STYLE LID PART # MSBCF1324–18

ALL TAPS: 12" O.C. MINIMUM

SPECIAL NOTES:

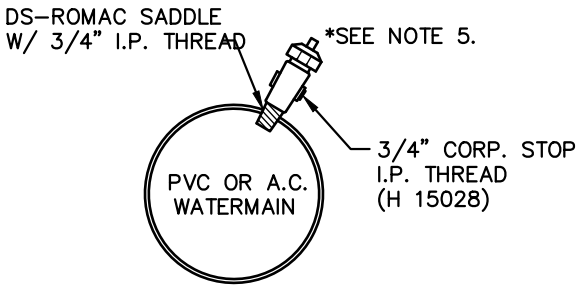
1. MINIMUM 15 FT. SEPARATION TO ADJACENT SERVICES.
2. TRACER WIRE MUST BE USED WITH POLY PIPE.

NOTES:
1. ALL PARTS NUMBERS ARE MUELLER.
2. FORD OR A.Y. McDONALD QUICKJOINTS MAY BE USED.
3. (200 psi POLYETHLENE COPPER TUBING O.D.)
4. STAINLESS STEEL LINERS #505142 REQ'D AT COUPLINGS.
5. *ALL SADDLES MUST HAVE SS STRAPS.



SECTION VIEW

NTS

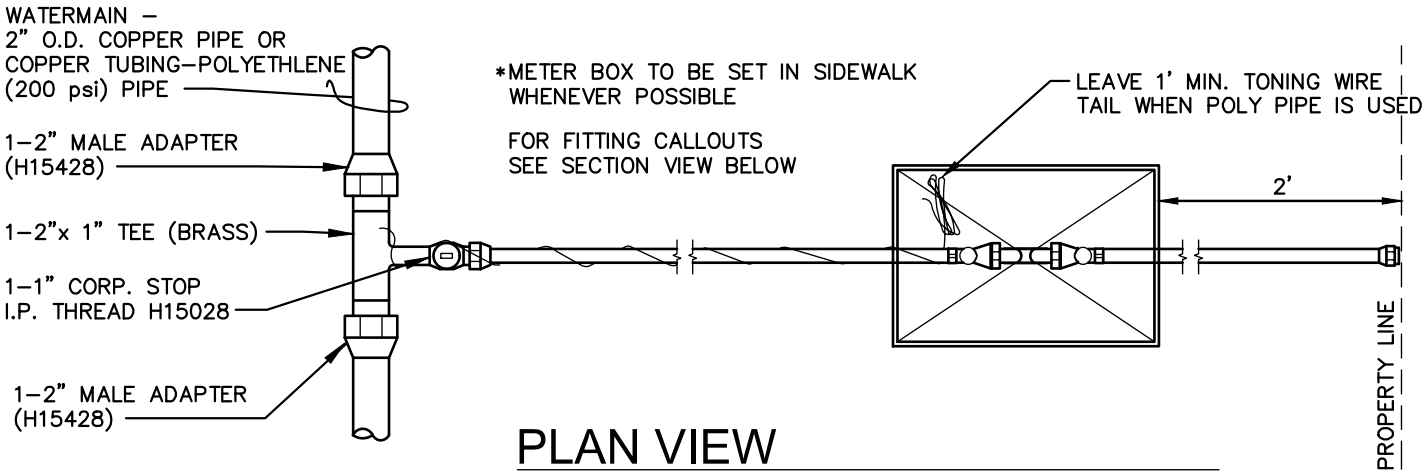


"Building A Stronger Community TOGETHER"

3/4" SINGLE SERVICE INSTALLATION

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-01



PLAN VIEW

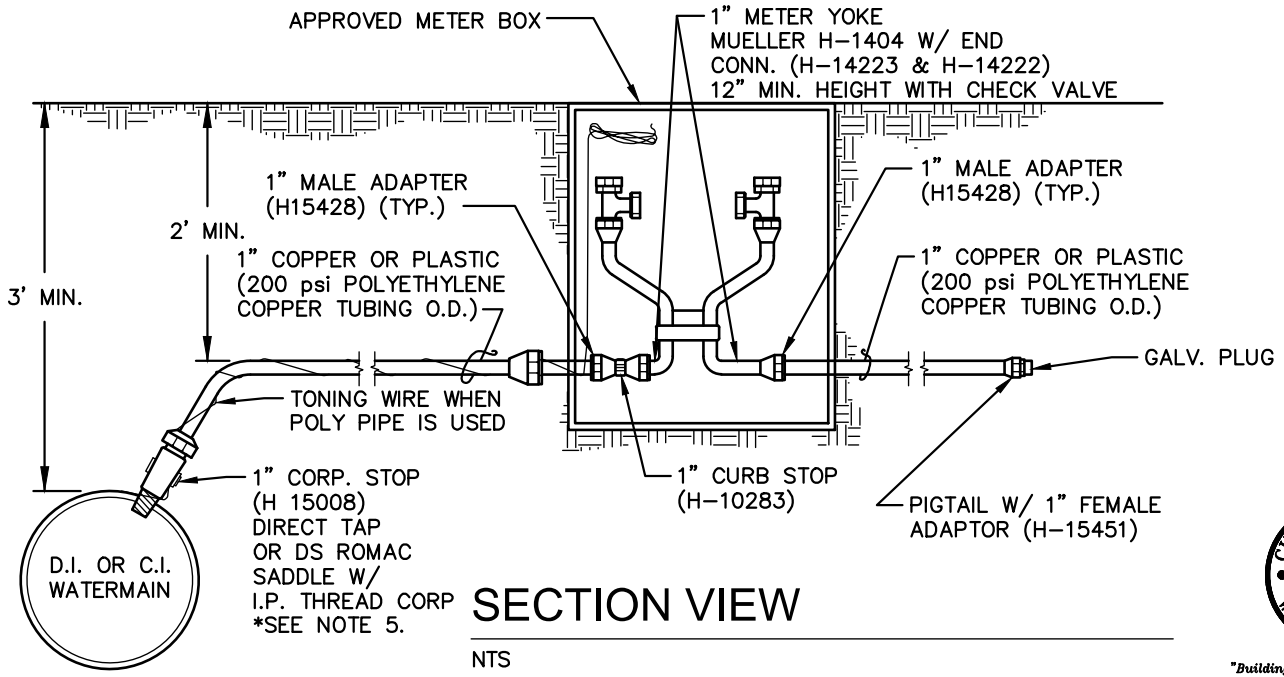
NTS

APPROVED METER BOXES:
MID STATES PLASTICS, INC. BCF SERIES BOX W/ CAST IRON READER STYLE LID PART # MSBCF1324–18

ALL TAPS: 12" O.C. MINIMUM

SPECIAL NOTES:

1. MINIMUM 15 FT. SEPARATION TO ADJACENT SERVICES.
2. TONING WIRE MUST BE USED WITH POLY PIPE.



SECTION VIEW

NTS

NOTES:
1. ALL PARTS NUMBERS ARE MUELLER.
2. FORD OR A.Y. McDONALD QUICKJOINTS MAY BE USED.
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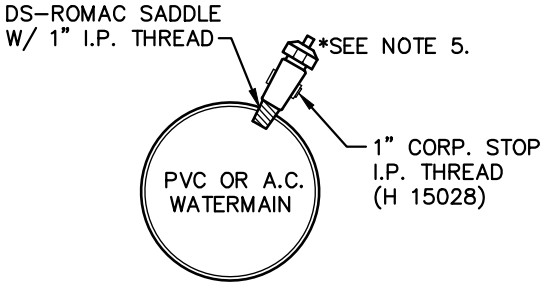
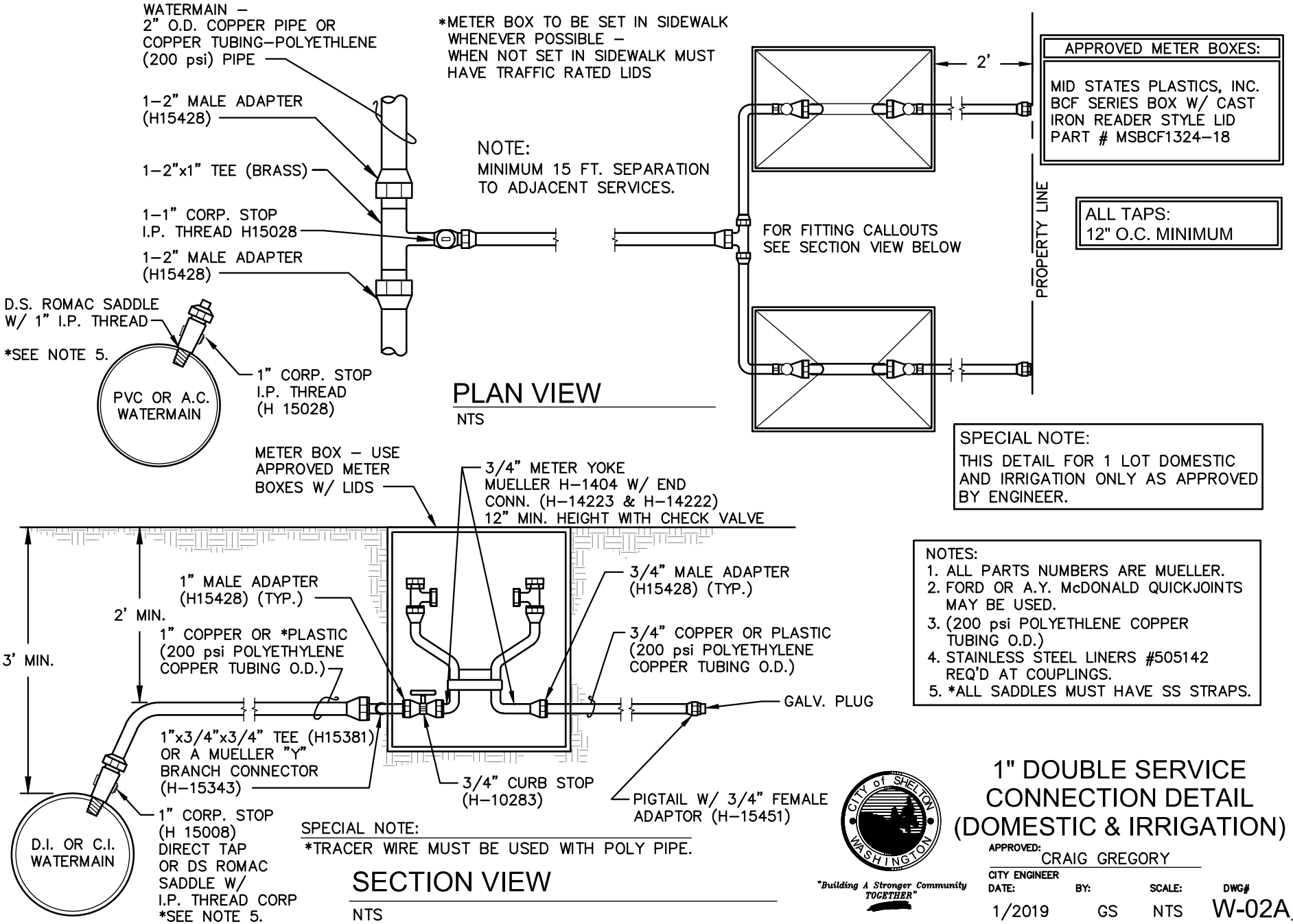


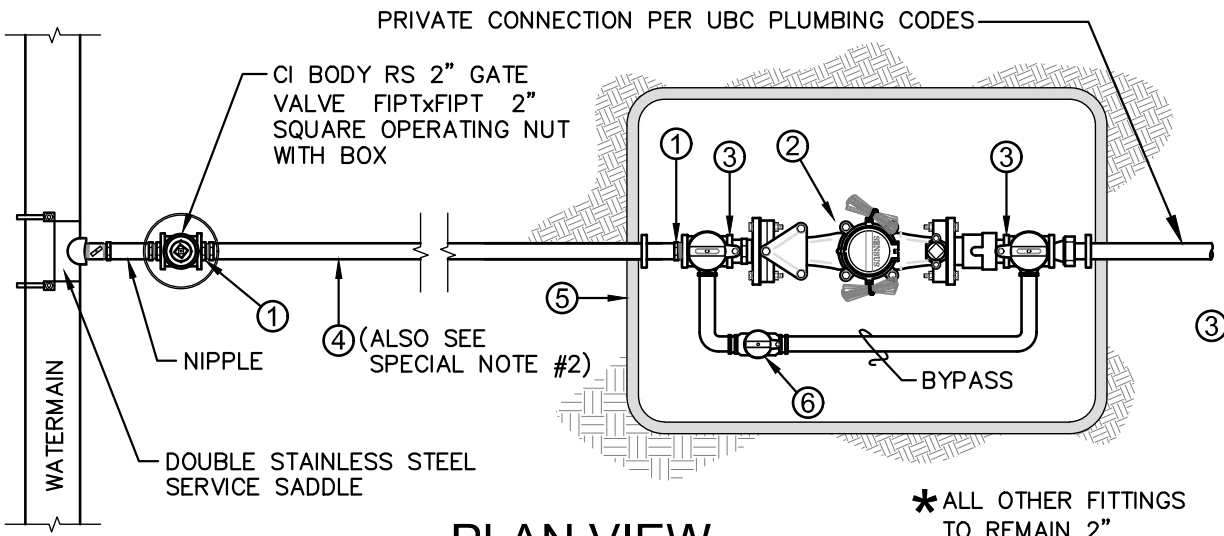
"Building A Stronger Community TOGETHER"

1" SINGLE SERVICE INSTALLATION

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-02


WATERMAIN –
2" O.D. COPPER PIPE OR
COPPER TUBING–POLYETHLENE
(200 psi) PIPE
1–2" MALE ADAPTER
(H15428)
1–2"x1" TEE (BRASS)
1–1" CORP. STOP
I.P. THREAD H15028
1–2" MALE ADAPTER
(H15428)
D.S. ROMAC SADDLE
W/ 1" I.P. THREAD
*SEE NOTE 5.
PVC OR A.C.
WATERMAIN
1" CORP. STOP
I.P. THREAD
(H 15028)
*METER BOX TO BE SET IN SIDEWALK
WHENEVER POSSIBLE –
WHEN NOT SET IN SIDEWALK MUST
HAVE TRAFFIC RATED LIDS
NOTE:
MINIMUM 15 FT. SEPARATION
TO ADJACENT SERVICES.
2'
PROPERTY LINE
FOR FITTING CALLOUTS
SEE SECTION VIEW BELOW
APPROVED METER BOXES:
MID STATES PLASTICS, INC.
BCF SERIES BOX W/ CAST
IRON READER STYLE LID
PART # MSBCF1324–18
ALL TAPS:
12" O.C. MINIMUM
PLAN VIEW
NTS
SPECIAL NOTE:
THIS DETAIL FOR 1 LOT DOMESTIC
AND IRRIGATION ONLY AS APPROVED
BY ENGINEER.
METER BOX – USE
APPROVED METER
BOXES W/ LIDS
3/4" METER YOKE
MUELLER H–1404 W/ END
CONN. (H–14223 & H–14222)
12" MIN. HEIGHT WITH CHECK VALVE
1" MALE ADAPTER
(H15428) (TYP.)
2' MIN.
1" COPPER OR *PLASTIC
(200 psi POLYETHYLENE
COPPER TUBING O.D.)
3' MIN.
3/4" MALE ADAPTER
(H15428) (TYP.)
3/4" COPPER OR PLASTIC
(200 psi POLYETHYLENE
COPPER TUBING O.D.)
GALV. PLUG
1"x3/4"x3/4" TEE (H15381)
OR A MUELLER "Y"
BRANCH CONNECTOR
(H–15343)
3/4" CURB STOP
(H–10283)
PIGTAIL W/ 3/4" FEMALE
ADAPTOR (H–15451)
D.I. OR C.I.
WATERMAIN
1" CORP. STOP
(H 15008)
DIRECT TAP
OR DS ROMAC
SADDLE W/
I.P. THREAD CORP
*SEE NOTE 5.
NOTES:
1. ALL PARTS NUMBERS ARE MUELLER.
2. FORD OR A.Y. McDONALD QUICKJOINTS MAY BE USED.
3. (200 psi POLYETHLENE COPPER TUBING O.D.)
4. STAINLESS STEEL LINERS #505142 REQ'D AT COUPLINGS.
5. *ALL SADDLES MUST HAVE SS STRAPS.
SPECIAL NOTE:
*TRACER WIRE MUST BE USED WITH POLY PIPE.
SECTION VIEW
NTS
CITY of SHELTON
WASHINGTON
"Building A Stronger Community TOGETHER"
1" DOUBLE SERVICE
CONNECTION DETAIL
(DOMESTIC & IRRIGATION)
APPROVED:
CRAIG GREGORY
CITY ENGINEER
DATE: 1/2019
BY: GS
SCALE: NTS
DWG# W-02A



PLAN VIEW

NTS

ALL TAPS: 12" O.C. MINIMUM

KEYNOTES

① 2"–MIPT x 110 COMPRESSION 2" ADAPTER MUELLER #15428

② ✱ 1–1/2" OR 2" WATER METER SENSUS OMNI C2 CUBIC FT. READ.

③ ✱✱ MUELLER 2" COPPER METER YOKE W/ ELEVATED BYPASS #B–2423–2–99000 MINIMUM SIZE OF 12" TALL MAXIMUM OF 27" FIPTxFIPT

④ 2"ø TYPE K COPPER PIPE OR APPROVED PLASTIC (200 PSI POLYETHYLENE COPPER TUBING O.D.)

⑤ METER BOX TO BE: MID STATES BOX #BCF173012B LID #BCF1730RL

⑥ BYPASS SHUTOFF VALVE

✱ ALL OTHER FITTINGS TO REMAIN 2"

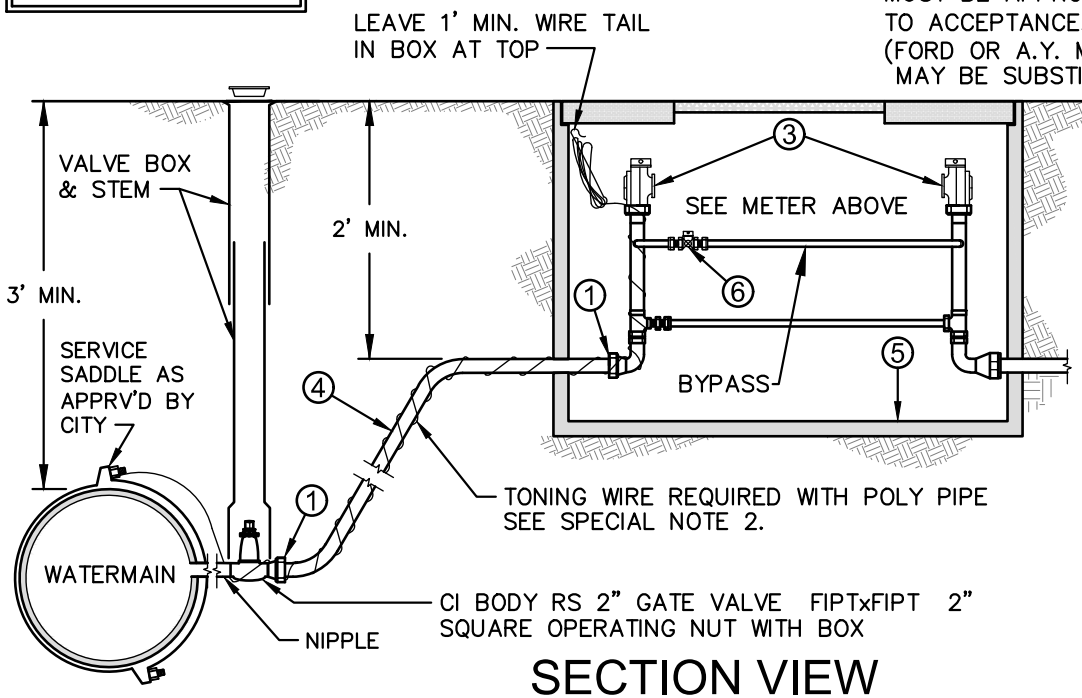
✱✱ OTHER CONFIGURATIONS MAY BE USED TO BEST FIT YOUR NEEDS. HOWEVER, THEY MUST BE APPROVED BY THE CITY PRIOR TO ACCEPTANCE. (FORD OR A.Y. McDONALD FITTINGS MAY BE SUBSTITUTED.)

NOTE:

PRECAST CONCRETE ENCLOSURE WITH STEEL ACCESS HATCH (AS MANUFACTURED BY UTILITY VAULT CO. OR AN APPROVED EQUAL.

APPROVED METER BOXES:

MID STATES PLASTICS, INC.
BCF SERIES BOX W/ CAST IRON READER STYLE LID
PART # MSBCF1324–18



SECTION VIEW

NTS

SPECIAL NOTES:

1. MINIMUM 15 FT. SEPARATION TO ADJACENT SERVICES.
2. 14 GAUGE BLUE COATED TONING WIRE MUST BE WRAPPED AROUND PIPE WHEN POLY PIPE IS USED. CONNECT TO SADDLE OR MECHANICALLY BOND TO EX. WIRE ON MAIN.

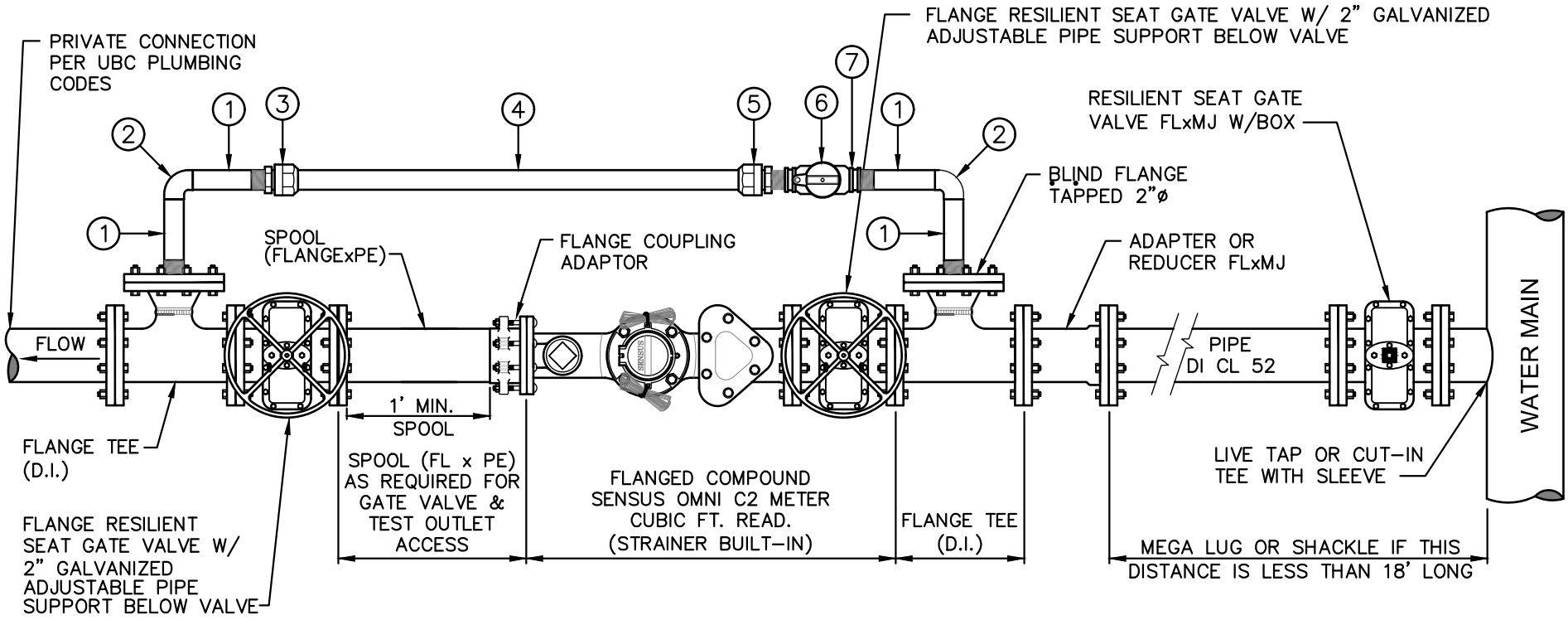
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

1½" - 2" WATER SERVICE INSTALLATION

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-03



KEYNOTES

1. 2"ø x 6" BRASS NIPPLE
2. 2"ø 90° BRASS ELBOW
3. 2"ø FEMALE ADAPTER MIPT x 110 COMP. MUELLER #H-15451
4. 2"ø TYPE K COPPER PIPE
5. 2" MALE ADAPTER MIPT x 110 COMP. MUELLER #15428
6. 2" BALL CURB STOP FIPT x 110 COMP. MUELLER #B-15172
7. 2" BRASS UNION

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3" - 4" WATER SERVICE METER SETTER w/ BYPASS

APPROVED: CRAIG GREGORY
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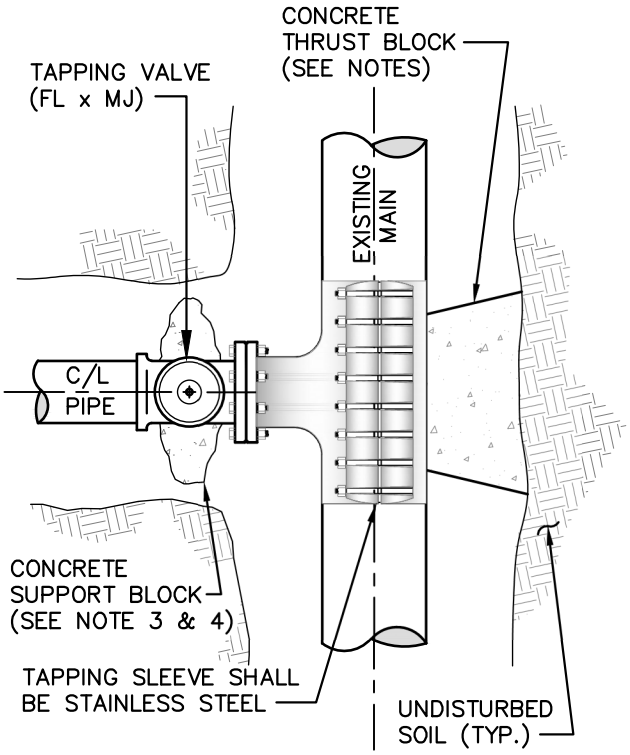
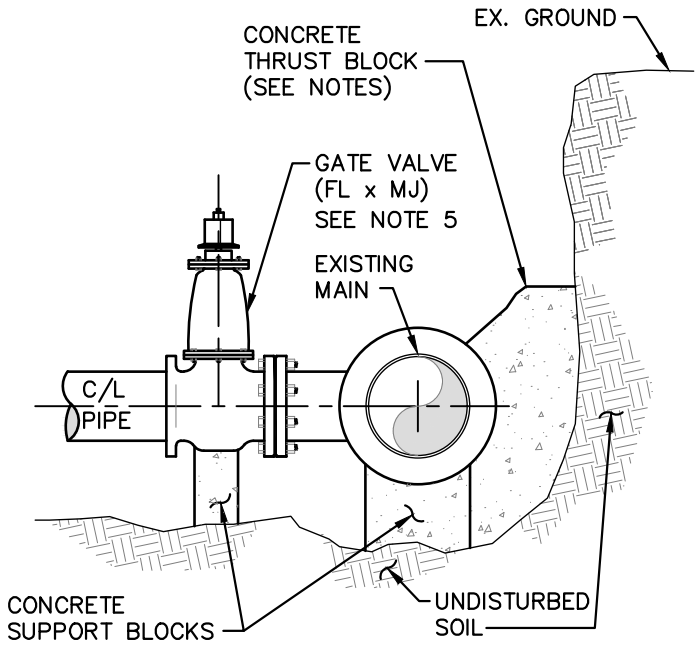
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-04



VALVE & SLEEVE SHALL
BE SUPPORTED & BACKFILLED
AS SHOWN IN ELEVATION VIEW.

PREFERRED METHOD
LIVE TAP

NTS

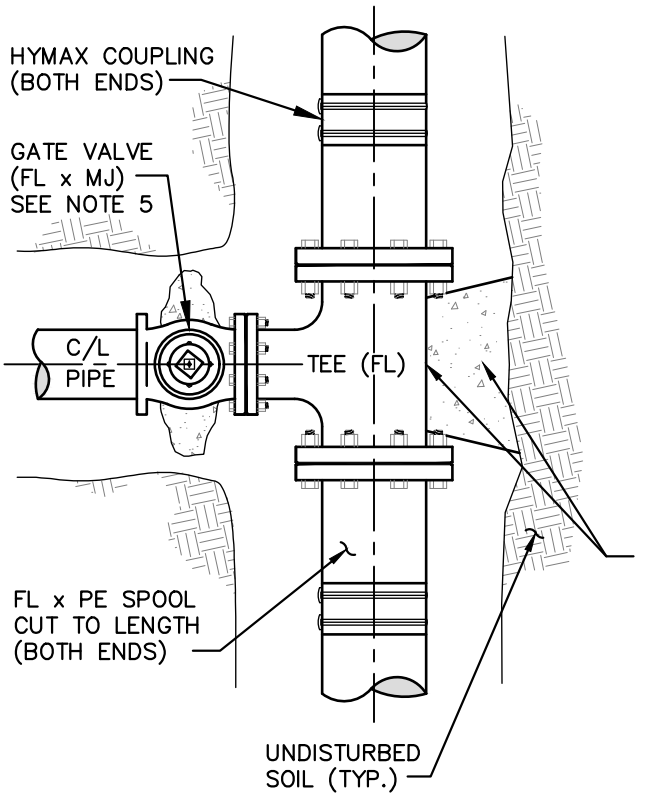


ELEVATION VIEW

NTS

INSTALLTION NOTES:

1. CUT-IN TEE ALLOWED ONLY AT TIMES WHEN SERVICE INTERRUPTION TO BE DETERMINED TO BE NON-PROBLEMATIC. CONSULT W/ PROJECT ENGINEER & WATER DEPT. PRIOR TO INSTALLATION.
2. MJ MEGA LUG RETAINERS, RESTRAINING RODS, OR ROMA GRIP RING RETAINERS TO BE USED IN COMBINATION WITH CONCRETE THRUST BLOCKING.
3. THRUST BLOCKING & SUPPORT BLOCKING SHALL BE COMMERCIAL CONCRETE AT LEAST 3,000 PSI COMPRESSIVE STRENGTH, POURED AGAINST UNDISTURBED SOIL. FOR ADDTIONAL THRUST BLOCKING REQUIREMENTS SEE C.O. SHELTON STD. DETAILS W-12, W-13 & W-14.
4. A PLASTIC BARRIER SHALL BE PLACED BETWEEN ALL FITTINGS & THRUST BLOCKS & CONC. SUPPORT BLOCKS.
5. FOR ADDITIONAL WATER VALVE INSTALLATION REQUIREMENTS SEE DETAIL W-07 & W-07A.



CUT-IN TEE (SEE NOTE 1)

NTS

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NEW CONNECTION TO EXISTING WATER MAIN

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DATE:	BY:	SCALE:	DWG#
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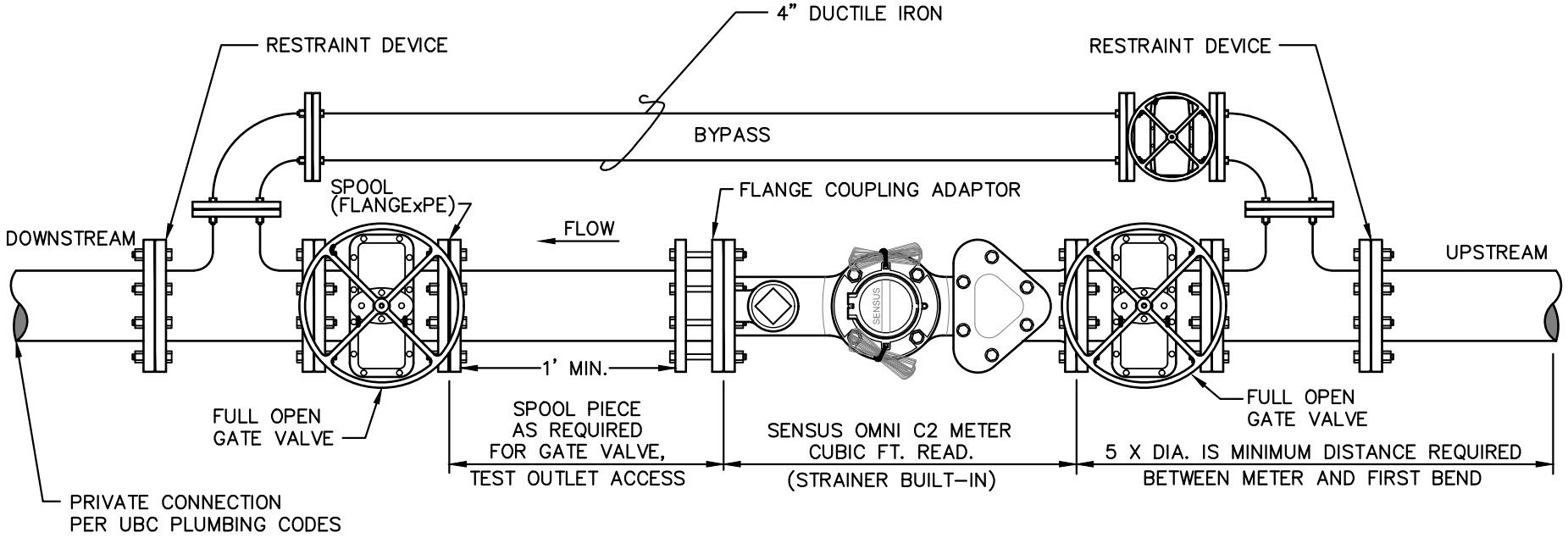
WATER METER NOTES:

1. CONTRACTOR TO INSTALL METER.
2. COORDINATE W/ CITY FOR OBTAINING METER.
3. UTILITY APPLICATION MUST BE COMPLETED & SUBMITTED BEFORE METER CAN BE INSTALLED.



CONSTRUCTION NOTES:

1. PRECAST CONCRETE ENCLOSURE WITH STEEL ACCESS HATCH (AS MANUFACTURED BY UTILITY VAULT CO. OR AN APPROVED EQUAL.)
2. PIPE STANDS ON 2' CENTERS.
3. MINIMUM OF 2 PIPE STANDS TO BE USED.
4. PIPE STANDS TO BE MADE OF GALV. STEEL. (2" MINIMUM DIAMETER)

CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

WATER METER ASSEMBLY
6" - 8" LARGER w/ 4" BYPASS

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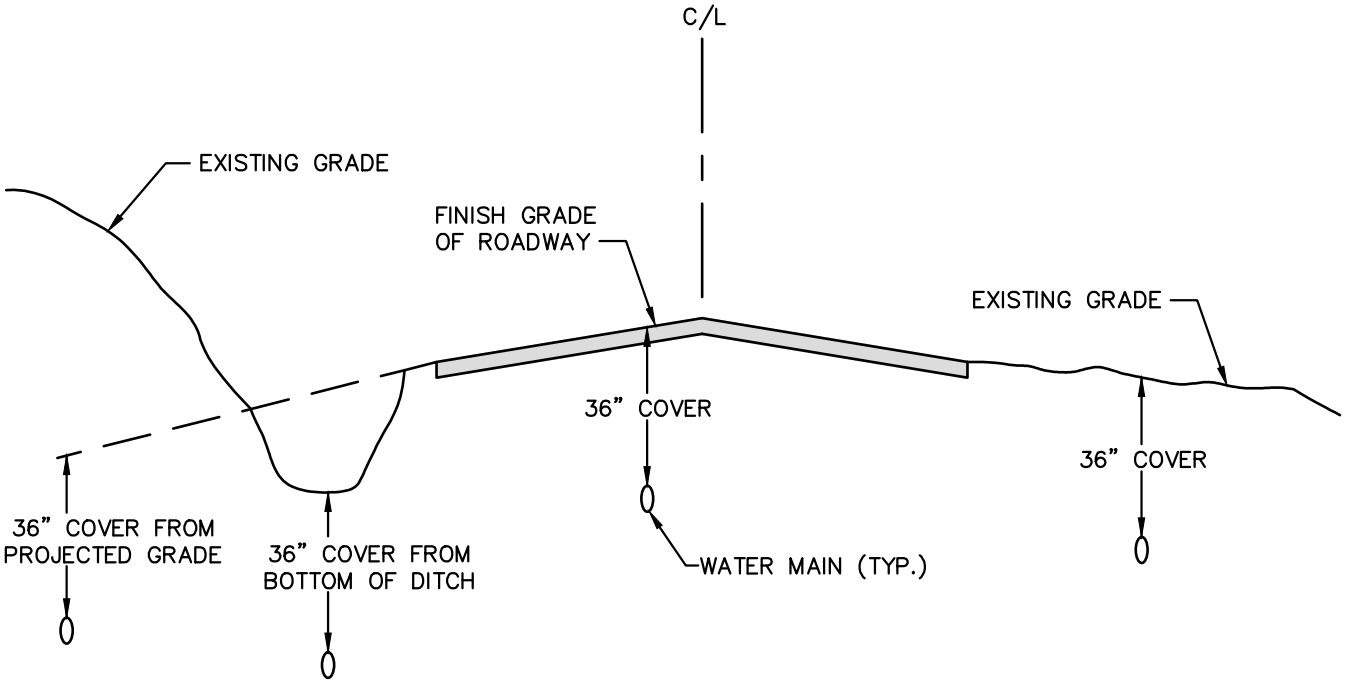
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-05



NOTE:

THE MINIMUM COVER FOR ALL WATER MAINS FROM TOP OF PIPE TO FINISH GRADE SHALL BE 36 INCHES UNLESS OTHERWISE APPROVED. IF THE PIPE IS OFFSET TO THE EDGE OF THE ROAD, THE ACTUAL ROADWAY CROSS GRADE SHALL BE PROJECTED OUT AND USED TO MEASURE COVER TO TOP OF PIPE. THIS WILL REQUIRE MORE FILL OVER THE PIPE IN A FILL SECTION BUT ALLOWS THE PIPE ADEQUATE COVER IN THE EVENT OF FUTURE ROADWAY CUTS OR WIDENING. IF THE PIPE IS LOCATED UNDER A DITCH, OR ON THE "DOWNHILL" SLOPE OF THE ROADWAY CROSS SECTION, THE MINIMUM, COVER OVER THE PIPE SHALL BE 42 INCHES REGARDLESS OF PROJECTED GRADES.

THE MAXIMUM COVER FOR ALL WATER MAINS FROM THE TOP OF PIPE TO FINISH GRADE SHALL BE 42" UNLESS OTHERWISE APPROVED.

CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

MIN./ MAX. COVERAGE FOR WATER LINES

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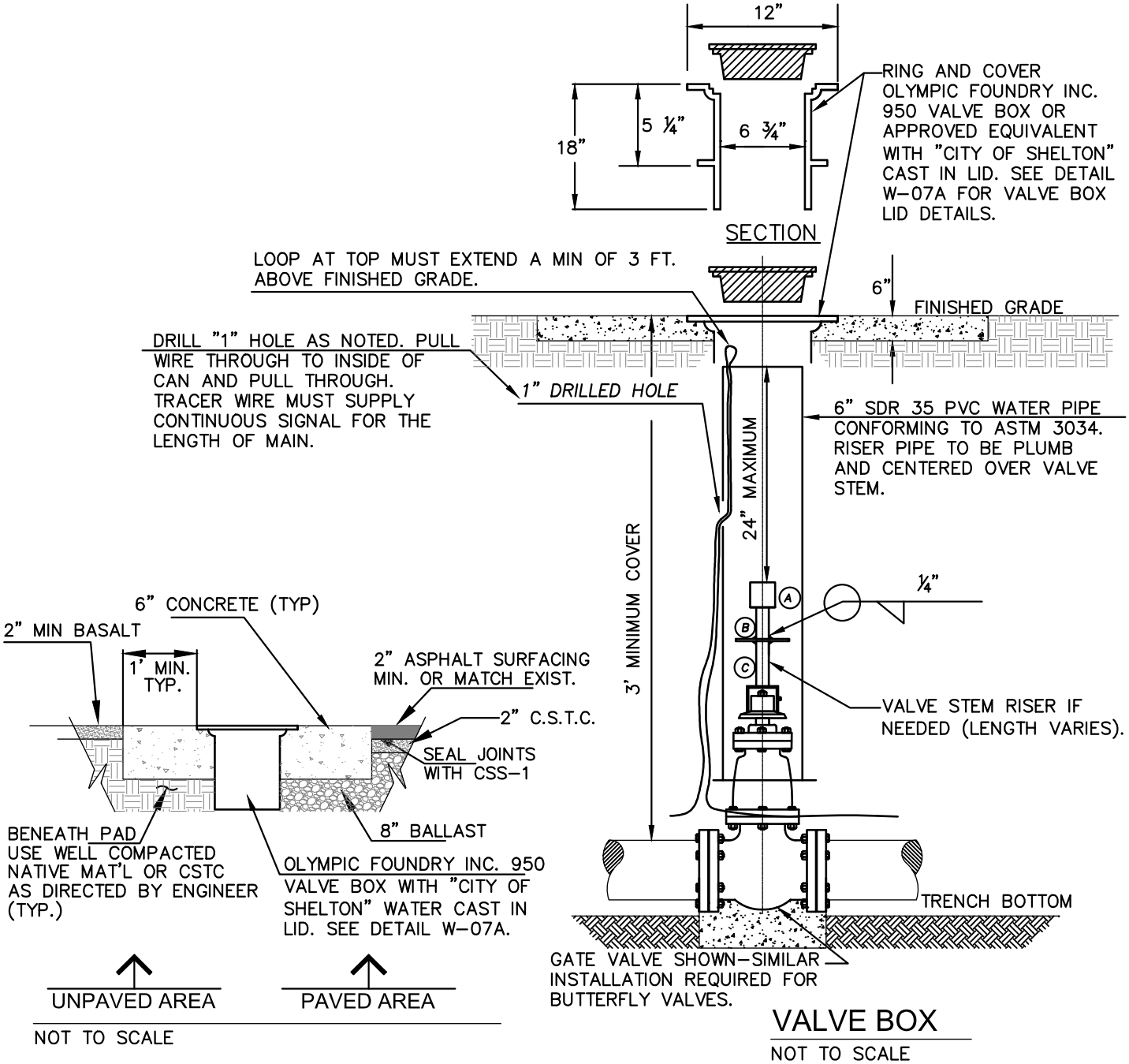
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-06



NOT TO SCALE

VALVE BOX

NOT TO SCALE

VALVE STEM EXTENSION LEGEND:

A. VALVE OPERATING NUT OR 1 $\frac{7}{8}$" X 1 $\frac{7}{8}$" X 2" HIGH GRADE STEEL WELDED TO GUIDE PLATE.

B. $\frac{3}{16}$" THICK X 5 $\frac{1}{5}$" DIAMETER STEEL GUIDE PLATE WELDED TO RISER SHAFT.

C. 2" X 2" X $\frac{3}{16}$" SQUARE STRUCTURAL STEEL TUBING TO FIT OPERATING NUT. LENGTH AS REQUIRED.

NOTE: ALL WELDS TO SHAFT SHALL BE FILLET WELD ALL AROUND, AS SPECIFIED ABOVE.

NOTES:

1. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN TWO (2) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG ONLY. ONE EXTENSION WILL BE ALLOWED PER VALVE.
2. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL. SIZED AS NOTED, AND PAINTED WITH TWO (2) COATS OF METAL PAINT.
3. IF EXTENSION IS NEEDED, USE 6" SDR 35 PVC WATER PIPE CONFORMING TO ASTM 3034.

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VALVE BOX/RISER & ROAD RESTORATION

APPROVED:
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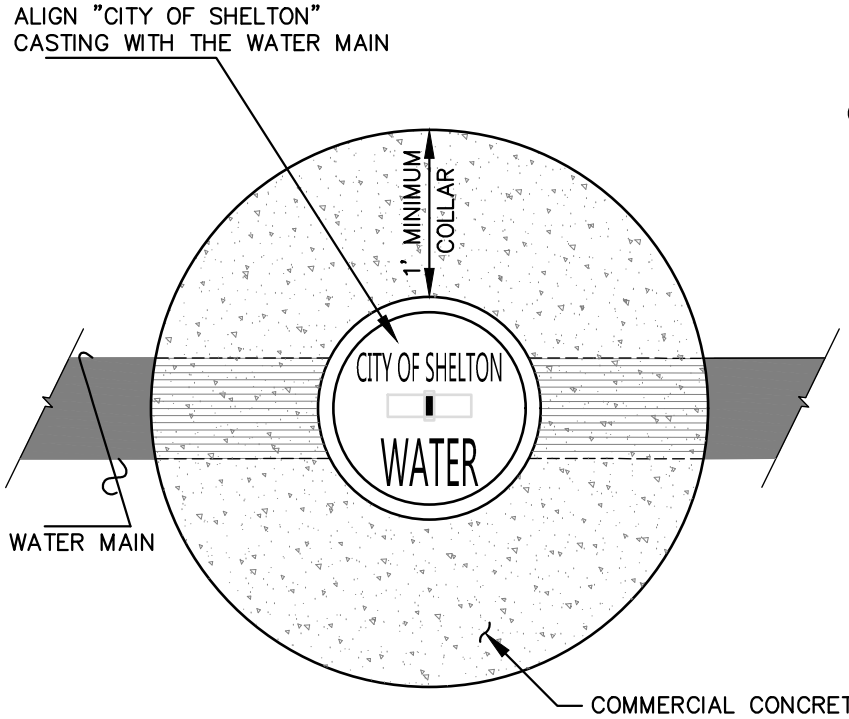
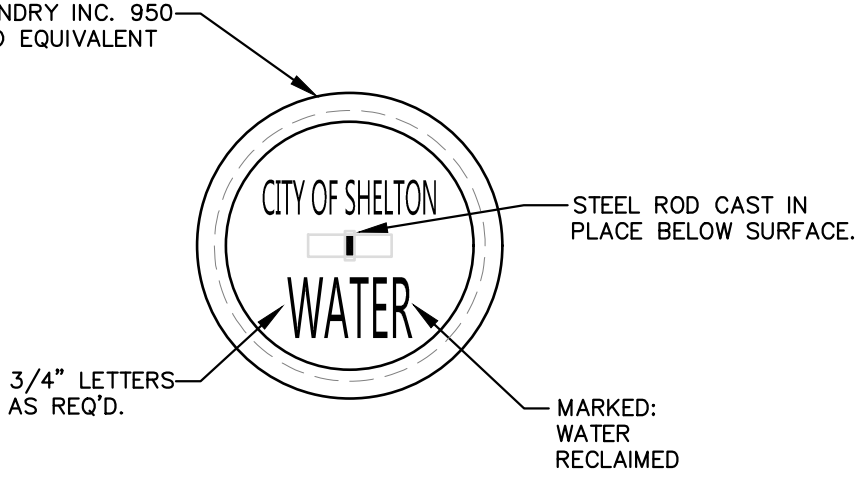
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-07





VALVE BOX LID DETAIL

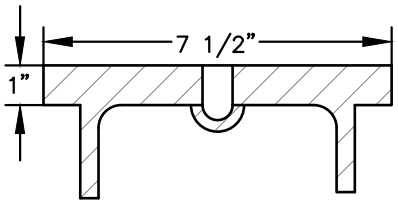
NOT TO SCALE

WATER VALVE BOX / RISER LID W/ CONCRETE COLLAR

NOT TO SCALE

NOTES:

1. SEE DETAIL W-07 VALVE BOX/RISER.
2. ALIGN "CITY OF SHELTON" CASTING WITH THE WATER MAIN.



VALVE BOX / RISER LID DETAIL

NOT TO SCALE

"Building A Stronger Community TOGETHER"

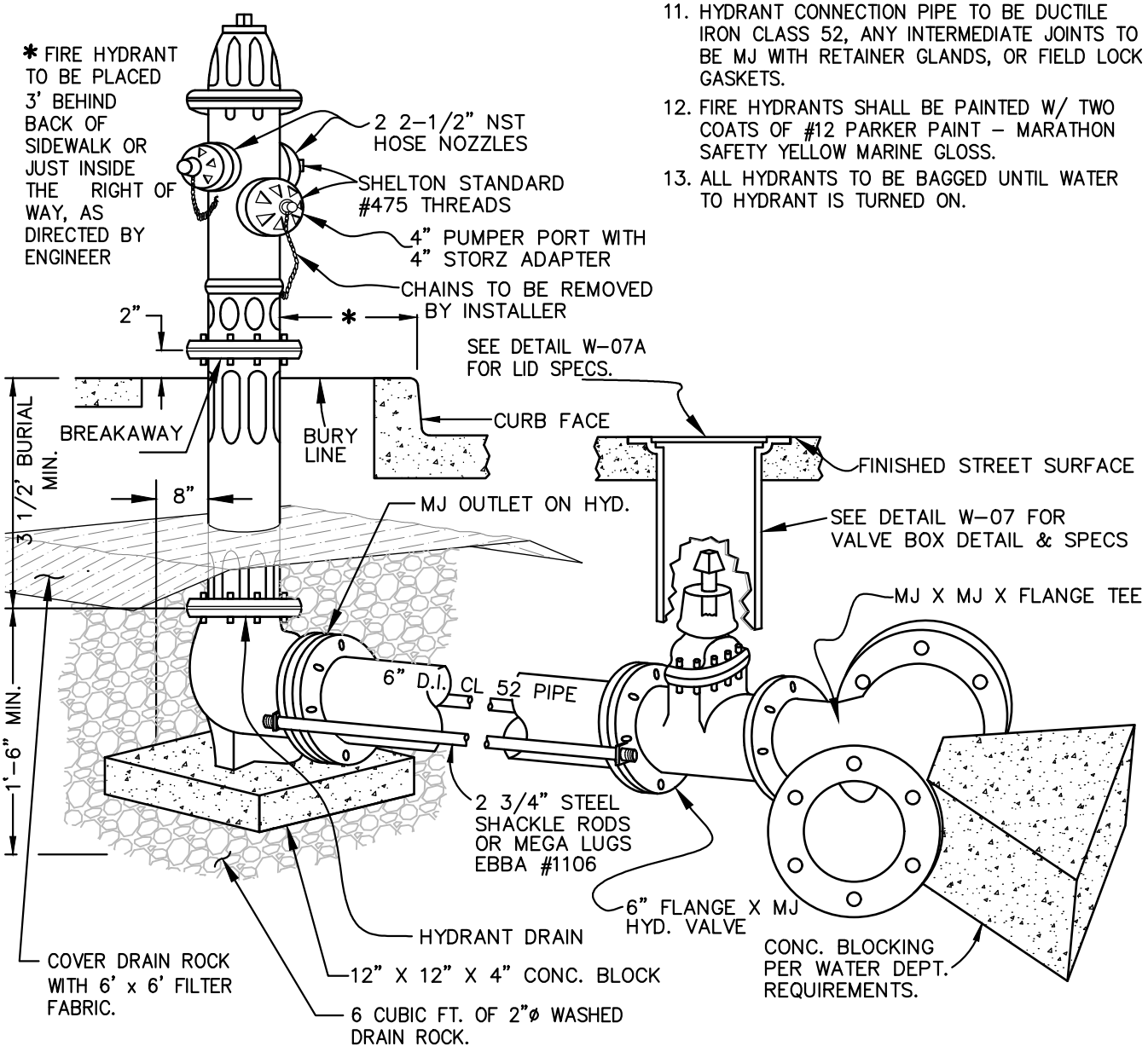
VALVE BOX / RISER LID DETAILS

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-07A

NOTES:

1. HYDRANTS AND ALL MATERIALS SHALL CONFORM TO AWWA STANDARDS AND SHALL BE OF STANDARD MANUFACTURE (MUELLER 250, M&H 129–S OR APPROVED EQUAL).
2. 5 1/4" VALVE MINIMUM.
3. 1 1/4" OPERATING NUT AND CAP NUT FOR 2 1/2" PORTS.
4. SHELTON STANDARD THREAD #475 ON 2 1/2" PORTS.
5. 4" STORZ FITTING W/SHELTON STD. THREAD #475 ON THE 4 1/2" PORTS.
6. IF HYDRANT RISES THROUGH CONCRETE, USE EXPANSION STRIP AROUND HYDRANT BARREL. PER DETAIL W–09.
7. PROVIDE FOR VEHICULAR TRAFFIC PROTECTION WHEN NECESSARY PER DETAIL W–09.
8. STEAMER PORT TO BE FACING STREET OR ROADWAY FOR FIRE ENGINE ACCESS.
9. BREAK–OFF FLANGE TO BE 2" ABOVE GROUND LEVEL.
10. INSTALL CONCRETE PAD AROUND HYDRANT IN UNPAVED, SOD AND ASPHALT AREAS PER DETAIL W–09.
11. HYDRANT CONNECTION PIPE TO BE DUCTILE IRON CLASS 52, ANY INTERMEDIATE JOINTS TO BE MJ WITH RETAINER GLANDS, OR FIELD LOCK GASKETS.
12. FIRE HYDRANTS SHALL BE PAINTED W/ TWO COATS OF #12 PARKER PAINT – MARATHON SAFETY YELLOW MARINE GLOSS.
13. ALL HYDRANTS TO BE BAGGED UNTIL WATER TO HYDRANT IS TURNED ON.



ADDITIONAL NOTES:

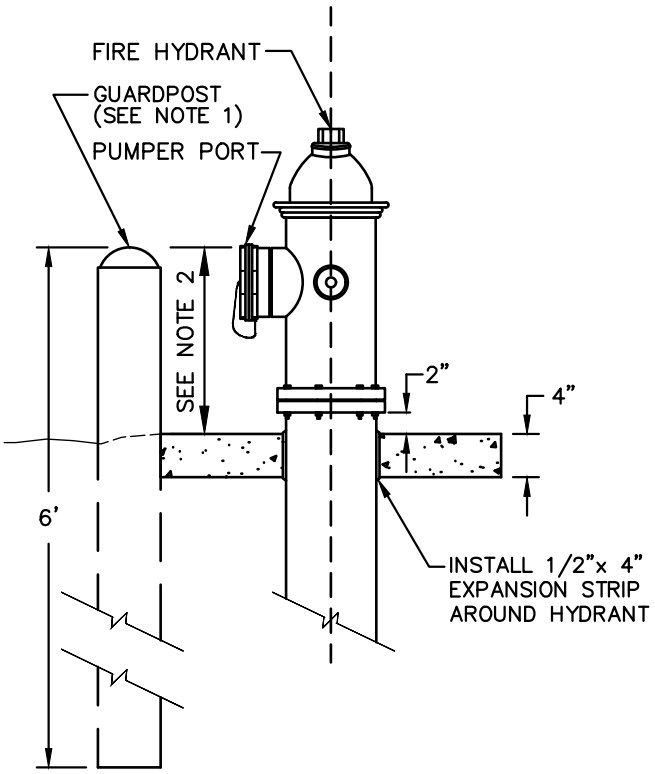
1. ALL FITTINGS SHALL BE APPROVED AND INSPECTED BY THE CITY PRIOR TO ACCEPTANCE.
2. SPECIAL FIELD CONDITIONS MAY REQUIRE THE WATER DEPARTMENT TO ALTER THE STANDARD SETTING REQUIREMENTS.
3. TYPE 2BB TWO WAY BLUE REFLECTIVE HYDRANT MARKER SHALL BE PLACED 4" OFF OF CENTERLINE LANE MARKER PER DETAIL T–01.

"Building A Stronger Community TOGETHER"

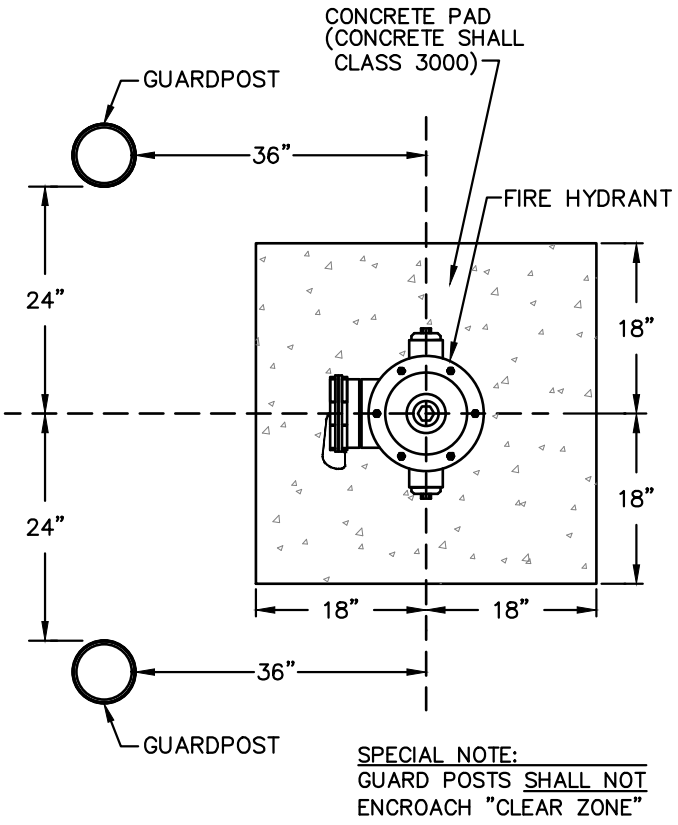
FIRE HYDRANT ASSEMBLY SYSTEM 1

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-08



ELEVATION VIEW



PLAN VIEW

FIRE HYDRANT GUARD POST & CONCRETE PAD

NOTES:

1. GUARD POSTS SHALL BE 6' LONG, 9" IN DIAMETER PRECAST CONCRETE OR 6' LONG, 6" DIAMETER SCHEDULE 40, CONCRETE FILLED CLASS 52 STEEL PIPE PAINTED WITH TWO COATS OF "RUST-O-LEUM" NO. 2766, HI GLOSS YELLOW PAINT.

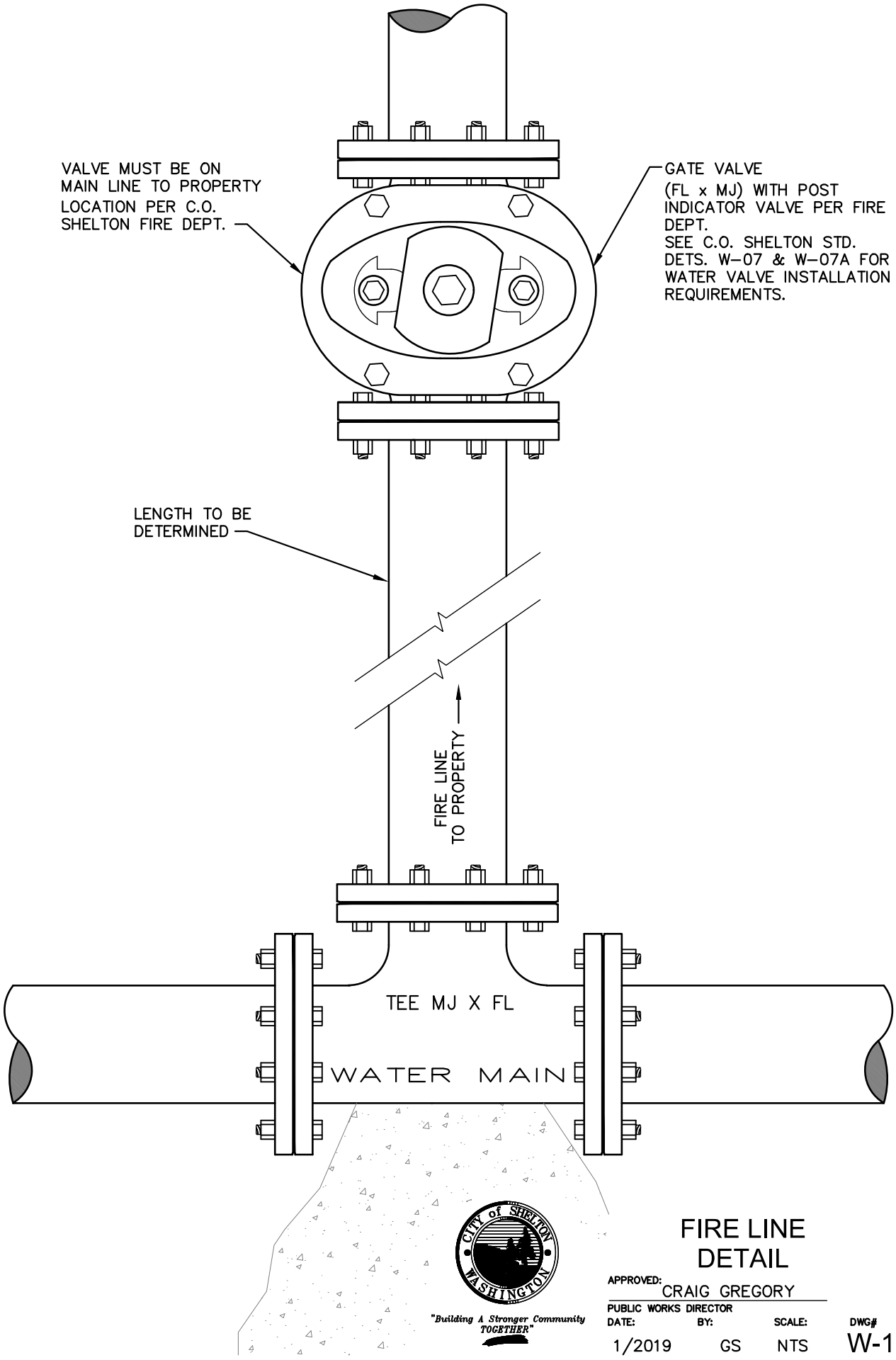
2. TOP OF GUARD POST SHALL BE LEVEL WITH TOP OF PUMPER PORT.

"Building A Stronger Community TOGETHER"

FIRE HYDRANT
GUARD POST
& CONCRETE PAD

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-09



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FIRE LINE DETAIL

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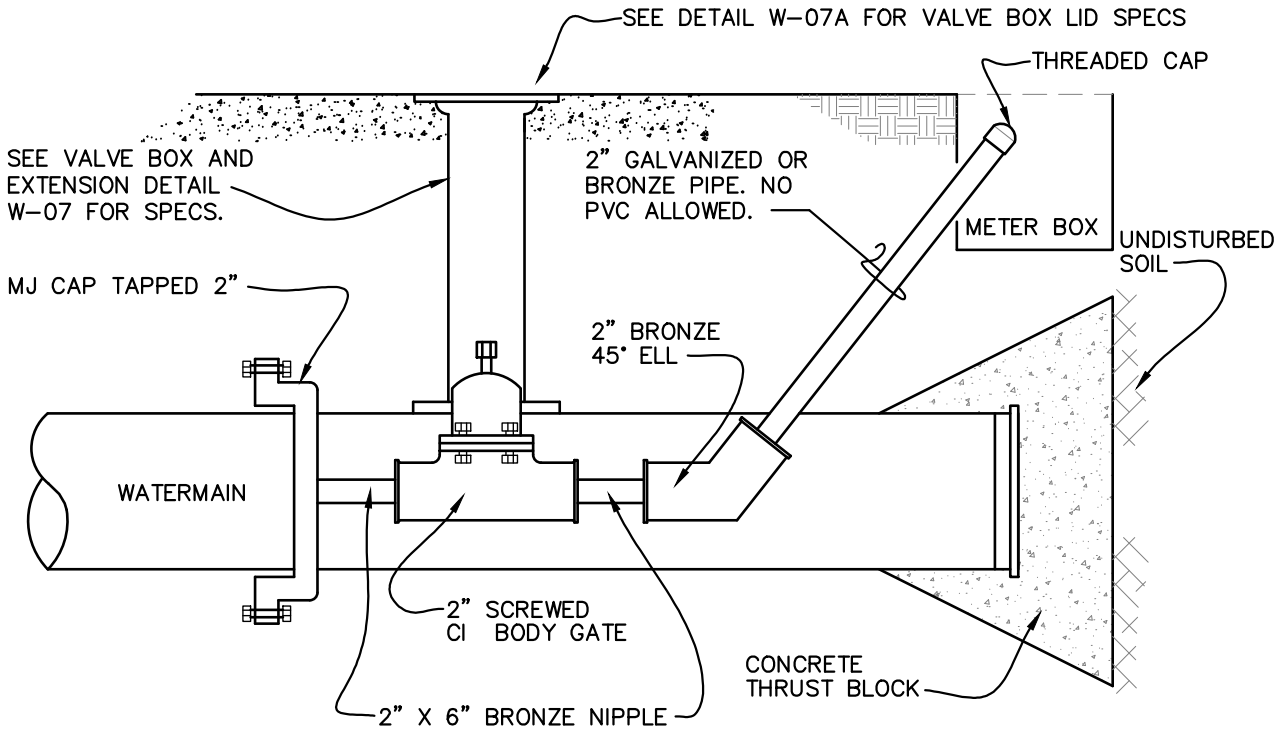
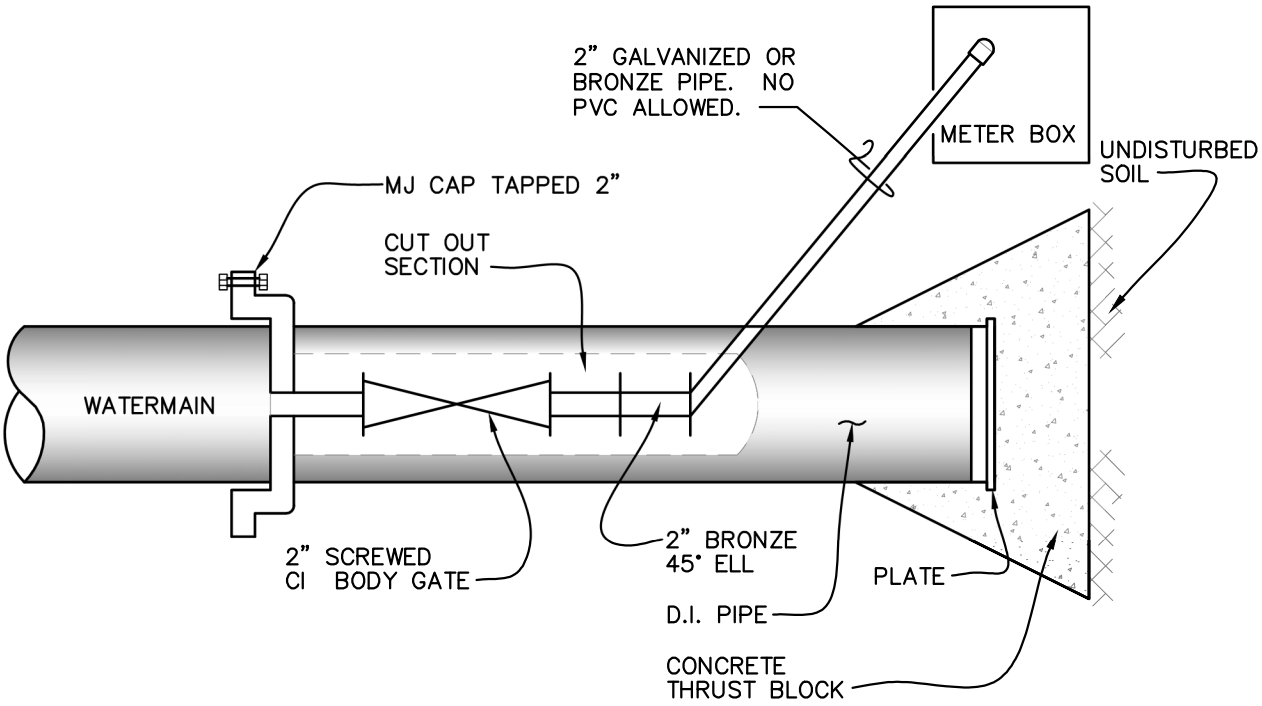
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-10



SECTION VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

"Building A Stronger Community TOGETHER"

BLOWOFF ASSEMBLY

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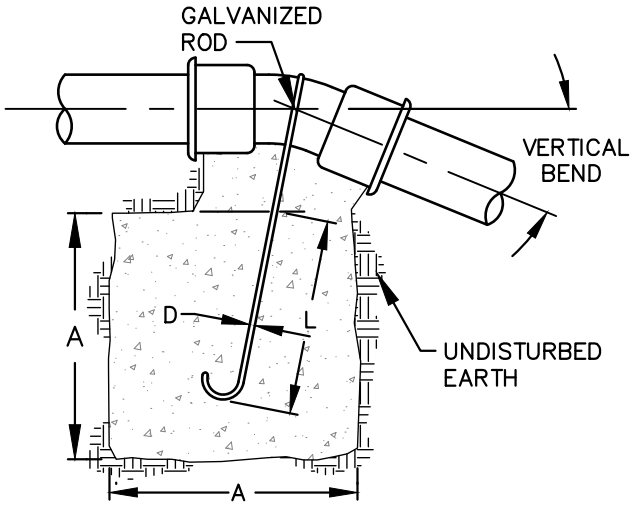
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-11

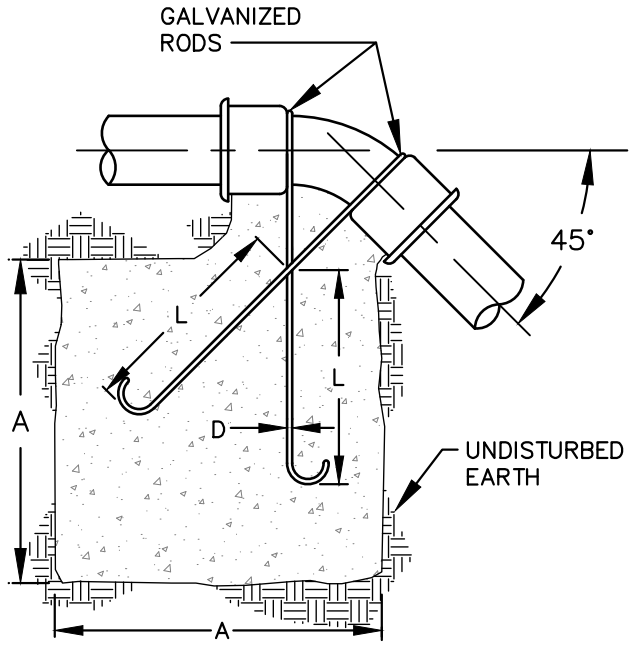
VERTICAL BLOCKING FOR 11 1/4° – 22 1/2° – 30° BENDS					
PIPE SIZE	VERT. BEND	GU FT.	A	D	L
4"	11 1/4°	8	2.0'	3/4"	1.5'
	22 1/2°	11	2.2'		2.0'
	30°	17	2.6'		
6"	11 1/4°	11	2.2'	3/4"	2.0'
	22 1/2°	25	2.8'		
	30°	41	3.5'		
8"	11 1/4°	16	2.5'	3/4"	2.0'
	22 1/2°	47	3.5'		
	30°	70	4.1'	3/4"	2.5'
12"	11 1/4°	32	3.2'	3/4"	2.0'
	22 1/2°	88	4.5'	7/8"	3.0'
	30°	132	5.1'		
16"	11 1/4°	70	4.1'	7/8"	3.0'
	22 1/2°	134	5.7'	1 1/3"	4.0'
	30°	275	6.5'	1 1/4"	
20"	11 1/4°	91	4.5'	7/8"	3.0'
	22 1/2°	225	6.1'	1 1/4"	4.0'
	30°	330	6.9'	1 3/8"	4.3'
24"	11 1/4°	128	5.0'	1"	3.5'
	22 1/2°	320	6.8'	1 3/8"	4.5'
	30°	480	7.0'	1 3/8"	5.5'



VERTICAL BLOCKING FOR 11 1/4° - 22 1/2° & 30° BENDS

NTS

VERTICAL BLOCKING FOR 45° BENDS					
PIPE SIZE	VERT. BEND	GU FT.	A	D	L
4"	45°	8	2.0'	3/4"	1.5'
6"	45°	11	2.2'		2.0'
8"	45°	17	2.6'		
12"	45°	11	2.2'	3/4"	2.0'
16"	45°	25	2.8'		
20"	45°	41	3.5'		
24"	45°	16	2.5'	3/4"	2.0'



VERTICAL BLOCKING FOR 45° BENDS

NTS

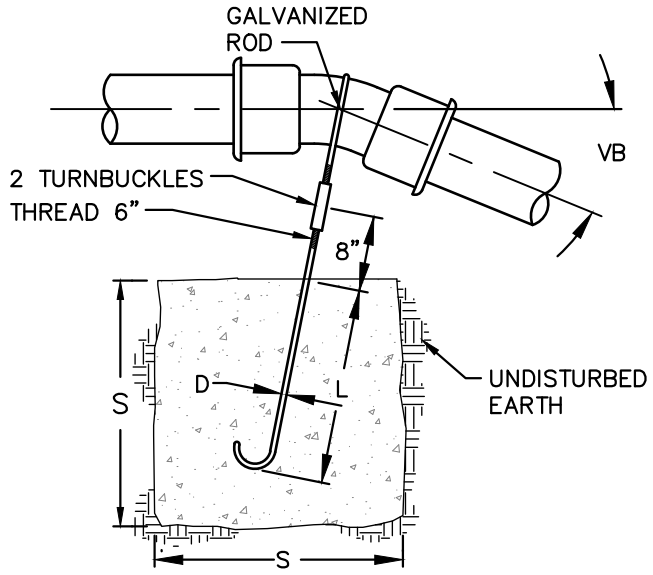
"Building A Stronger Community TOGETHER"

VERTICAL THRUST BLOCKING

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-12

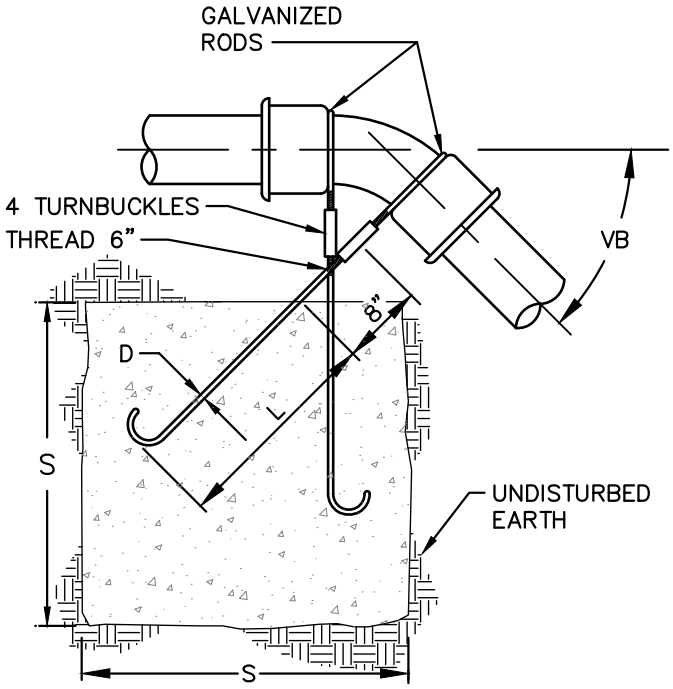
TYPE "A" BLOCKING FOR 11 1/4° – 22 1/2° – 30° BENDS						
		VB		S	D	L
PIPE SIZE NOM. DIAMETER INCHES	TEST PRESSURE PSI	VERTICAL BEND DEGREES	NO. OF CU CT OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACKLE RODS (4) INCHES	DEPTH OF RODS IN CONCRETE FEET
4	300	11 1/4°	8	2.0	3/4	1.5
		22 1/2°	11	2.2		2.0
		30°	17	2.6		
6	300	11 1/4°	11	2.2	3/4	2.0
		22 1/2°	25	2.9		
		30°	41	3.5		
8	300	11 1/4°	16	2.5	3/4	2.0
		22 1/2°	47	3.6		
		30°	70	4.1		2.5
12	250	11 1/4°	32	3.2	3/4	2.0
		22 1/2°	88	4.5		3.0
		30°	132	5.1		
16	225	11 1/4°	70	4.1	7/8	3.0
		22 1/2°	148	5.3	1 1/8	4.0
		30°	275	6.5	1 1/4	
20	200	11 1/4°	91	4.5	7/8	3.0
		22 1/2°	225	6.1	1 1/4	4.0
		30°	330	6.9	1 3/8	4.3
24	200	11 1/4°	128	5.0	1	3.5
		22 1/2°	320	6.8	1 3/8	4.5
		30°	480	7.9	1 5/8	5.5



VERTICAL BLOCKING
FOR 11 1/4° - 22 1/2° & 30° BENDS

NTS

TYPE "B" BLOCKING FOR 45° BENDS						
		VB		S	D	L
PIPE SIZE NOM. DIAMETER INCHES	TEST PRESSURE PSI	VERTICAL BEND DEGREES	NO. OF CU CT OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACKLE RODS (4) INCHES	DEPTH OF RODS IN CONCRETE FEET
4	300	45°	30	3.1	3/4	2.0
6	300	45°	68	4.1	3/4	2.0
8	300	45°	123	5.0	3/4	2.0
12	250	45°	232	6.1	3/4	2.5
16	225	45°	478	7.8	1 1/8	4.0
20	200	45°	560	8.2	1 1/4	4.0
24	200	45°	820	9.4	1 3/8	4.5



CLASS 3000 CONC.
(OR COMMERCIAL)

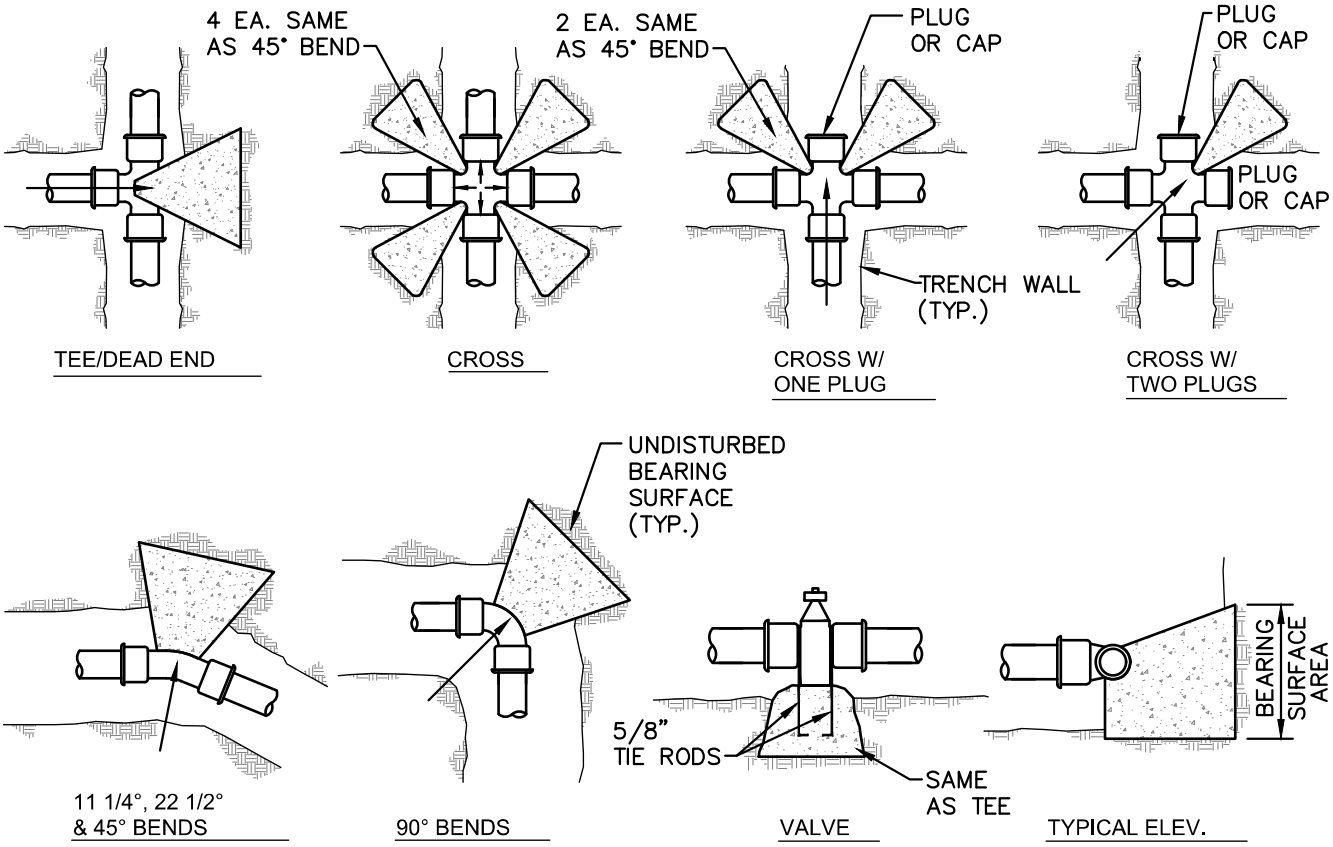
NTS

"Building A Stronger Community TOGETHER"

ALTERNATE VERTICAL THRUST BLOCKING

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-13



TYPES OF CONCRETE BLOCKING

NTS

TABLE A

THRUST (IN LBS.) PER PSI OF WATER PRESSURE AT VARIOUS FITTINGS

PIPE SIZE	BENDS				TEES DEAD ENDS
	11 1/4°	22 1/2°	45°	90°	
4	3	7	13	24	17
6	7	15	29	53	38
8	13	26	51	95	67
10	21	41	80	148	105
12	30	60	115	213	150
14	40	80	157	290	205
16	52	104	205	378	267
18	66	132	259	479	338
20	82	163	320	591	418
24	118	235	461	851	602

TABLE B

ALLOWABLE BEARING PRESSURE FOR SOILS TYPES

SOIL TYPE	BEARING PRESSURE LBS./SQ. FT.
PEAT OR MUCK	0
ALLUVIAL SOIL	1,000
SOFT CLAY	2,000
SAND	4,000
SAND & GRAVEL	6,000
SAND & GRAVEL W/CLAY	8,000
SHALE	12,000
ROCK	20,000

NOTES

TABLE "A" SHOULD BE USED WITH THE MAXIMUM PRESSURE ANTICIPATED FOR HYDROSTATIC TEST PRESSURE OR SURGE PRESSURE. (WORKING PRESSURE TIMES 1.33)

IN ABSENCE OF A SOILS REPORT, AN AVERAGE SOIL (SOFT CLAY) WITH AN ASSUMED VALUE OF 2,000 PSF BEARING STRENGTH (FROM TABLE "B") MAY BE USED.

CONCRETE FOR THRUST BLOCKING SHALL BE CLASS 3000 OR COMMERCIAL AT THE DISCRETION OF THE CONTRACTOR.

SHACKLE RODS SHALL BE ASTM A-36 WITH MINIMUM YIELD STRESS OF 36KSI (KIPS PER SQ. IN.) MINIMUM ROD DIAMETER SHALL BE 5/8".

NOTES IN FIGURES SUCH AS: "SAME AS 45° BEND" MEANS THE THRUST BLOCK VALUE SHALL BE THE SAME AS DETERMINED FOR A 45° BEND OF THE SAME SIZE.

EXAMPLE

REQUIRED BEARING SURFACE FOR A 90° BEND IN 8" LINER WITH MAXIMUM OPERATING PRESSURE OR TEST PRESSURE OF 200 PSI AND SOIL BEARING STRENGTH OF 2,000 PSF:

$\frac{\text{THRUST}}{\text{SOIL STRENGTH}}$ = BEARING AREA (SQ. FT.)

THRUST = 95(FROM TABLE) X 200 = 19,000 LBS

$\frac{19{,}000 \text{ LBS}}{2{,}000 \text{ PSF}}$ 9.5 SQ. FT. = AREA OF UNDISTURBED SOIL REQUIRED

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HORIZONTAL THRUST BLOCKING

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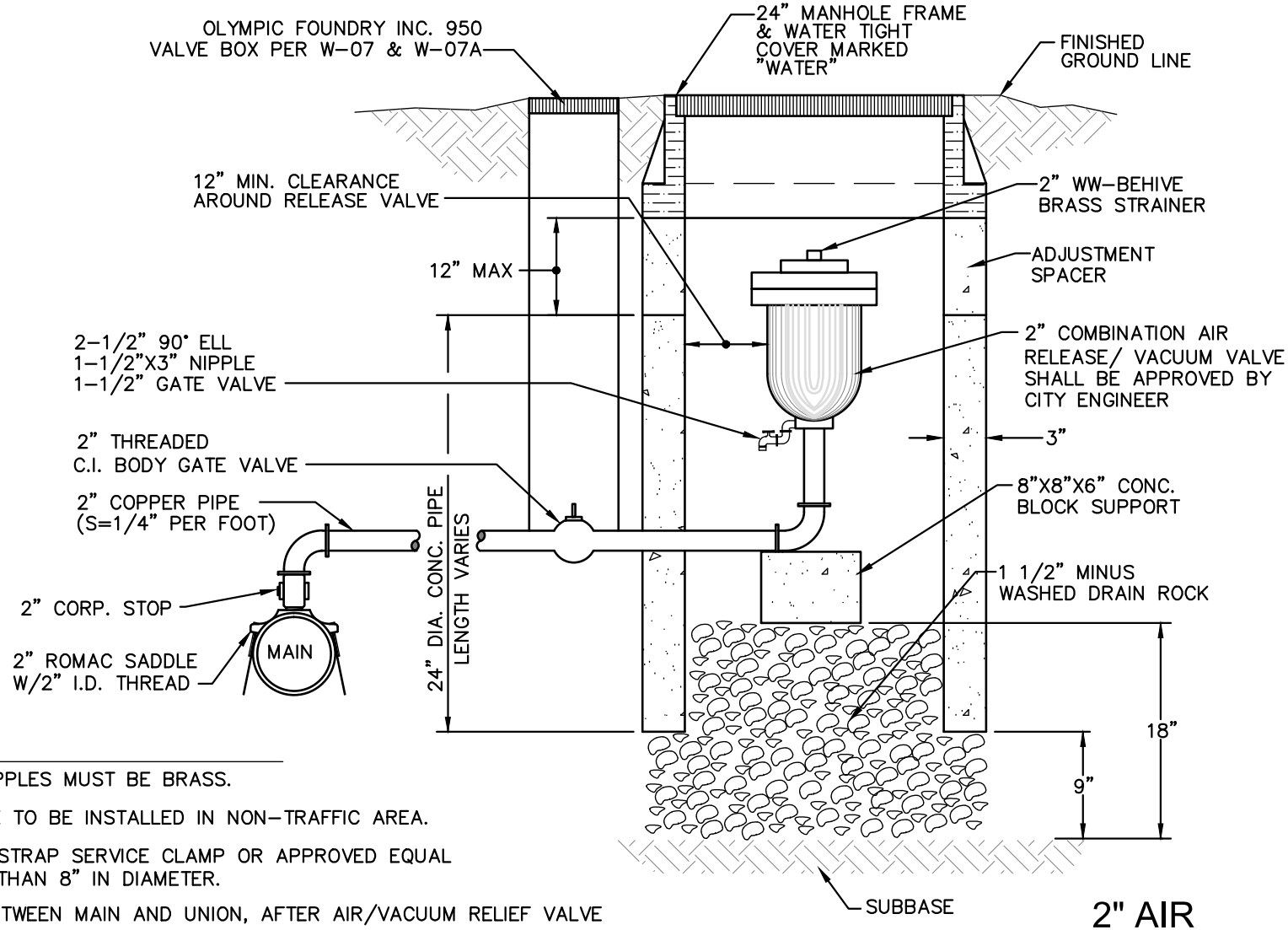

NOTES:

1. ALL FITTINGS AND NIPPLES MUST BE BRASS.
2. AIR-VAC UNIT & BOX TO BE INSTALLED IN NON-TRAFFIC AREA.
3. USE ROMAC DOUBLE STRAP SERVICE CLAMP OR APPROVED EQUAL ON ALL MAINS LESS THAN 8" IN DIAMETER.
4. ALL PIPE FITTINGS BETWEEN MAIN AND UNION, AFTER AIR/VACUUM RELIEF VALVE SHALL BE BRASS.
5. INSTALLATIONS FOR OTHER SIZE AIR/VACUUM RELIEF VALVES SHALL BE INDIVIDUALLY DESIGNED AND WILL REQUIRE APPROVAL BY THE UTILITIES DIVISION.
6. AIR/VAC RELEASE VALVE ASSEMBLY SHALL BE INSTALLED AT HIGH POINT ON LINE. IF HIGH POINT FALLS IN LOCATION WHERE ASSEMBLY CANNOT BE INSTALLED, PROVIDE ADDITIONAL DEPTH TO CREATE NEW HIGH POINT.
7. CONCRETE VAULT PENETRATIONS SHALL BE CORED DRILLED AND GROUTED.

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2" AIR VACUUM/RELEASE VALVE ASSEMBLY

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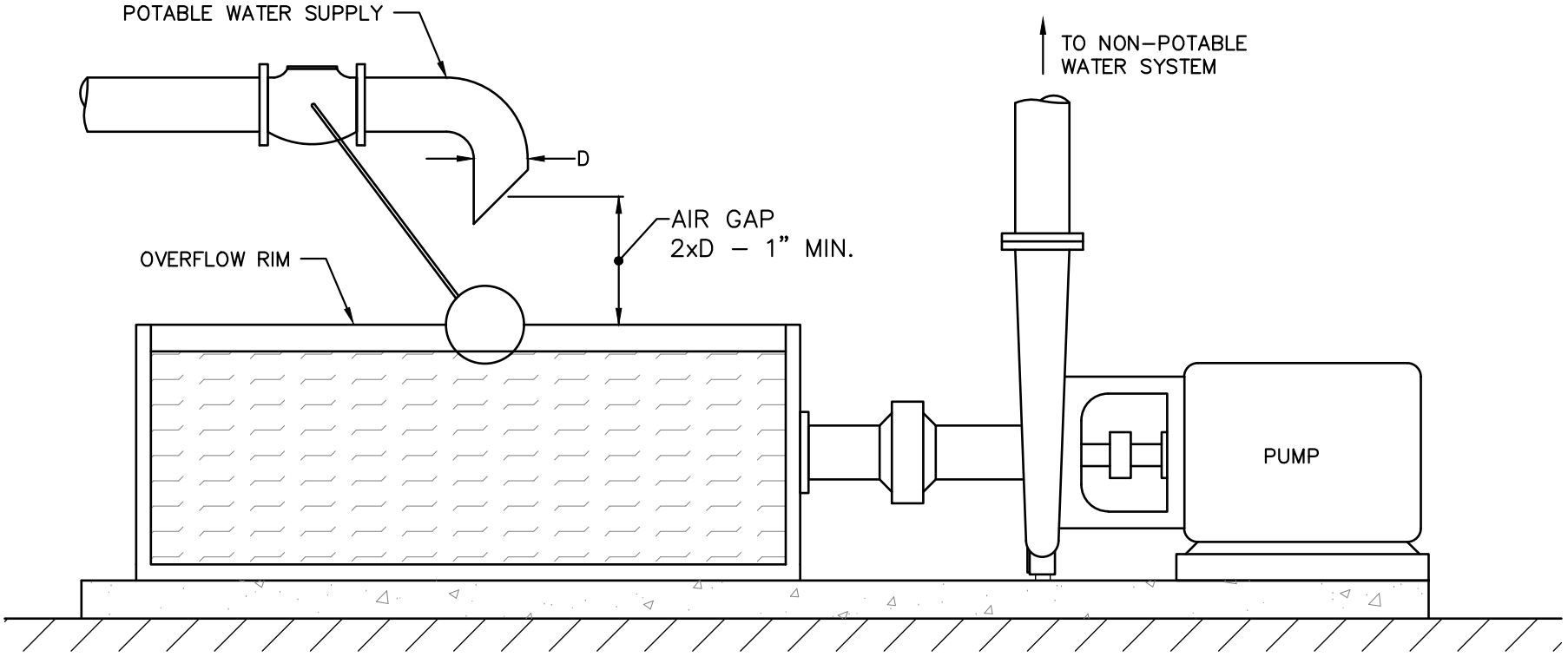
APPROVED AIR GAP SEPARATION

AN APPROVED AIR GAP IS A PHYSICAL SEPARATION BETWEEN THE FREE FLOWING DISCHARGE END OF A POTABLE WATER SUPPLY PIPELINE AND THE OVERFLOW RIM OF AN OPEN OR NON–PRESSURE RECEIVING VESSEL. THESE VERTICAL, PHYSICAL SEPARATIONS MUST BE AT LEAST TWICE THE DIAMETER OF THE INLET PIPE BUT NEVER LESS THAN ONE INCH. IF SPLASHING IS A PROBLEM, TUBULAR SCREENS MAY BE ATTACHED OR THE SUPPLY LINE OUTLET MAY BE CUT AT A 45° ANGLE. IF SUPPLY LINE IS CUT AT A 45° ANGLE THE AIR GAP DISTANCE IS MEASURED FROM THE CENTER OF THE ANGLE, HOSES ARE NOT ALLOWED. BYPASSES ARE NOT ALLOWED. THE INSPECTION OF AIR GAPS SHALL BE INCLUDED IN THE YEARLY TESTING PROGRAM FOR BACK FLOW DEVICES.



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AIR GAP
FOR MAKEUP TANK

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DATE:	BY:	SCALE:	DWG#
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Pressure Vacuum Breaker Assembly

ASSEMBLIES MUST MEET REQUIREMENTS SHOWN BELOW TO ENSURE ACCESSIBILITY FOR TESTING, MAINTENANCE AND APPROVAL OF THE WATER PURVEYOR. VARIANCE OF ANY INSTALLATION MUST HAVE PRIOR WRITTEN APPROVAL OF THE LOCAL WATER PURVEYOR AND THE LOCAL OFFICIAL OF THE PLUMBING CODE AND IT'S INSPECTOR.

ASSEMBLY INSTALLATION REQUIREMENTS

THOROUGHLY FLUSH SERVICE LINE PRIOR TO INSTALLATION OF ASSEMBLY.
THE UNIT MUST BE:

- ACCESSIBLE FOR TESTING AND MAINTENANCE.
- PROTECTED FROM FREEZING, FLOODING, VANDALISM, AND MECHANICAL DAMAGE DUE TO WATER HAMMER AND EXCESSIVE PRESSURE.
- ALL ASSEMBLIES MUST BE INSTALLED VERTICALLY.

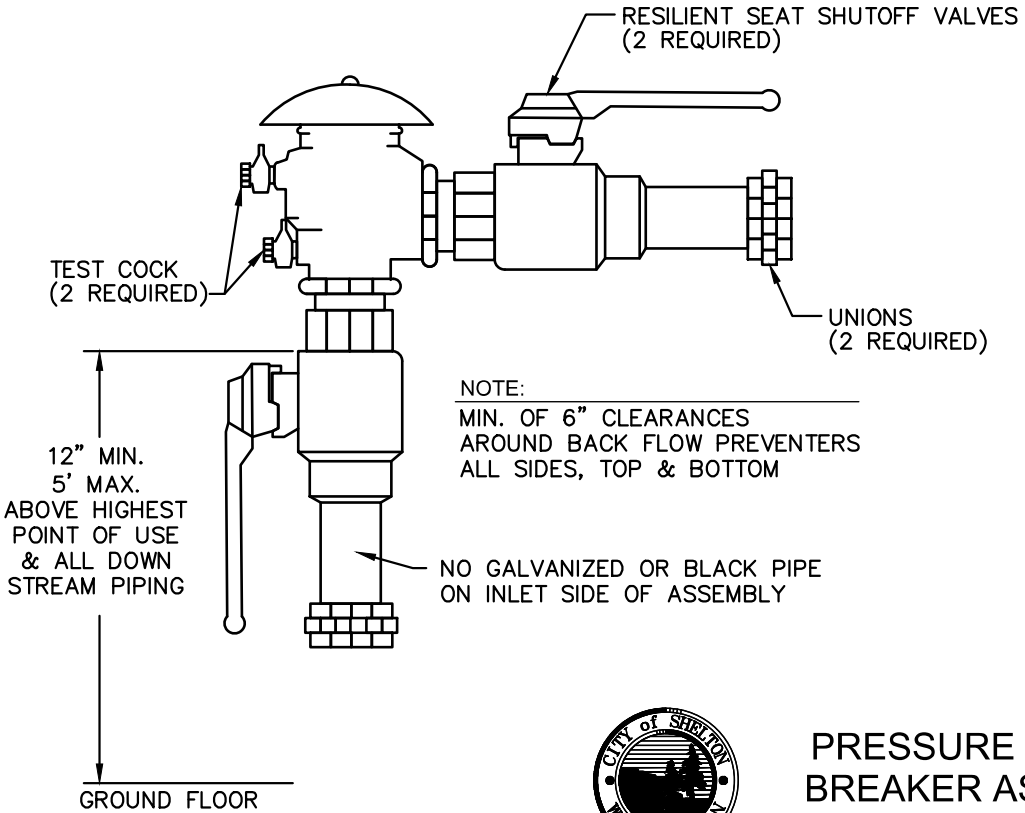
PRESSURE VACUUM BREAKER ASSEMBIES CANNOT BE INSTALLED BELOW GROUND AT ANYTIME

DESIGNED FOR BACK SIPHONAGE ONLY, NOT BACK PRESSURE.
WHEN INSTALLING AN ASSEMBLY INSIDE A BUILDING, ENSURE ASSEMBLY IS LOCATED WHERE OCCASIONAL SPITTING FROM THE RELIEF VALVE PORT, A FOULED CHECK, OR WATER FLUSHED OUT DURING THE ANNUAL TEST WILL NOT BE OBJECTIONABLE. PROPER DRAINAGE MUST BE PROVIDED.
NO GALVANIZED OR BLACK PIPE ON INLET SIDE.

PROCEDURE REQUIREMENTS

ALL ASSEMBLIES MUST BE ON THE WASHINGTON STATE APPROVED BACKFLOW ASSEMBLY LIST. THIS LIST IS AVAILABLE THROUGH THE DEPARTMENT OF HEALTH, (360) 236–3140.
A PLUMBING PERMIT IS REQUIRED; CONTACT THE WATER PURVEYOR FOR INSPECTION OF ALL NEWLY INSTALLED ASSEMBLIES

ALL ASSEMBLIES ARE REQUIRED TO BE TESTED AND SIGNED BY A WASHINGTON STATE CERTIFIED TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLIES MUST BE TESTED AFTER REPAIRS, RELOCATION OR REINSTALLATION AND IMMEDIATELY SENT TO LOCAL WATER PURVEYOR



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PRESSURE VACUUM BREAKER ASSEMBLY

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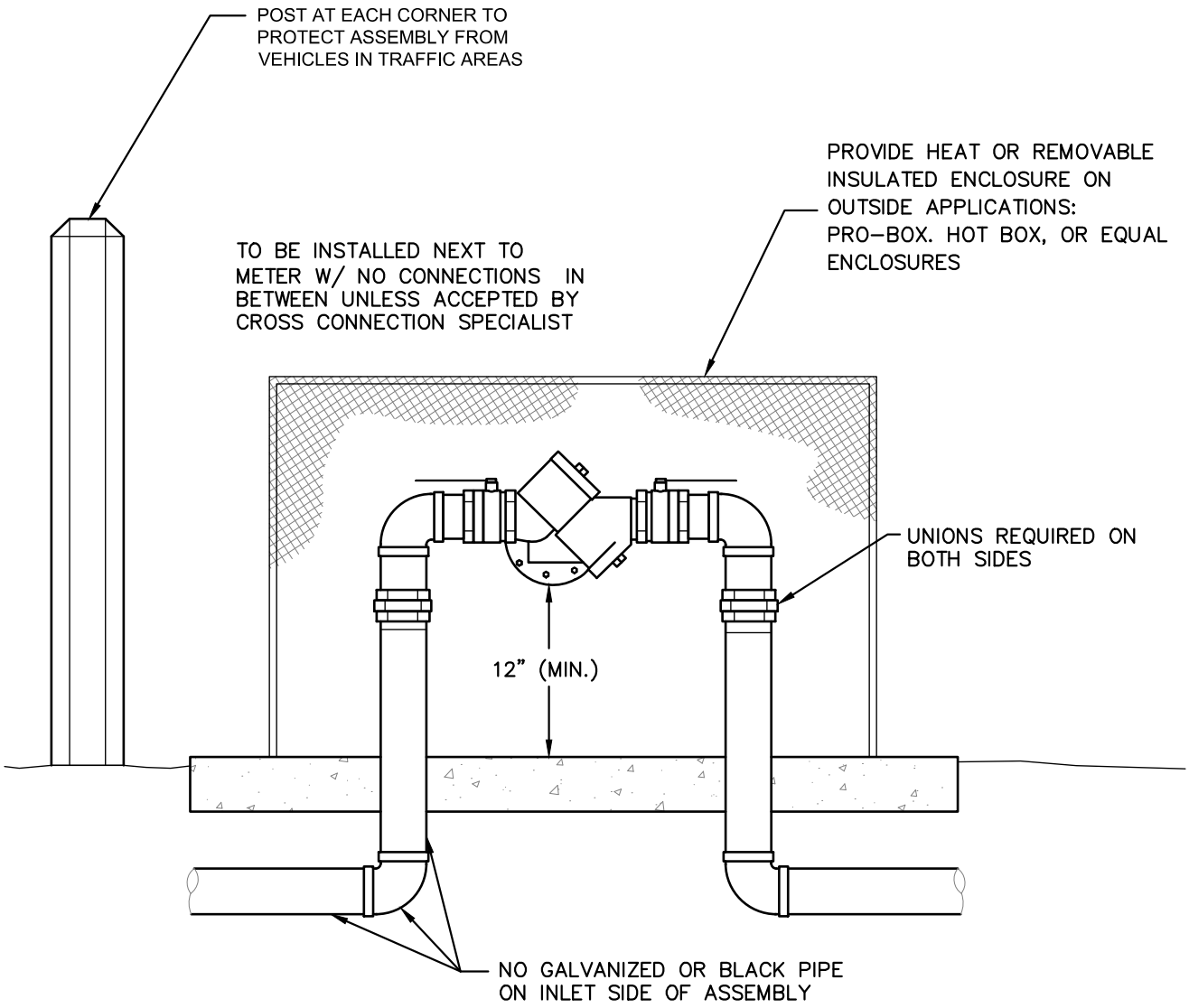
1/2019	GS	NTS	W-17



ATTENTION:
SEE SHT. W-19A FOR PROCEDURE & INSTALLATION REQUIREMENTS NOTES.

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REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) 2" & SMALLER

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Reduced Pressure Backflow Assembly (RPBA) Installation—2” and Smaller

PROCEDURE REQUIREMENTS

All assemblies must be on the Washington State Approved Backflow Assembly list. This list is available through USC Foundation approved Backflow Prevention Assemblies. For more information call the City of Shelton's C.C.S. (360) 432-5187. A plumbing permit is required; Contact the Water Purveyor for inspection of all newly installed assemblies. When testing a Reduced Pressure Detector Assembly, both assemblies must be tested and two test reports submitted to the Local Water Purveyor.

ALL ASSEMBLIES ARE REQUIRED TO BE TESTED AND SIGNED BY A WASHINGTON STATE CERTIFIED TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLIES MUST BE TESTED AFTER REPAIRS, RELOCATION OR REINSTALLATION AND IMMEDIATELY SENT TO LOCAL WATER PURVEYOR.

ASSEMBLIES MUST MEET ABOVE REQUIREMENTS TO ENSURE ACCESSIBILITY FOR TESTING, MAINTENANCE AND APPROVAL OF THE WATER PURVEYOR. VARIANCE OF ANY INSTALLATION MUST HAVE PRIOR WRITTEN APPROVAL OF THE LOCAL WATER PURVEYOR AND THE LOCAL OFFICIAL OF THE PLUMBING CODE AND IT’S INSPECTOR.

ASSEMBLY INSTALLATION REQUIREMENTS

Thoroughly flush service line prior to installation of assembly.
The unit must be:

- Installed as a unit, including two shut off valves, two check valves and four test cocks for each RPBA All assemblies are required to be installed as a unit in the configuration they were approved by USC; Plugs must be installed in all test cocks on RPBA and RPDA'S.
- Accessible for testing and maintenance,
- Protected from freezing, flooding, vandalism, and mechanical damage due to water hammer and excessive pressure. If installed outside, assembly must be in Hot Box.

Assemblies must be installed no higher than 5 feet from floor to centerline of assembly and a minimum of 12 inches from floor to bottom of assembly. All assemblies must be installed horizontally, unless they have Washington State and USC approval to be installed vertically. If installed in a vertical configuration, it must be a minimum of 12 inches from floor, and no higher than 5 feet* to the centerline of the #2 shut-off valve. All assemblies must maintain a sufficient clearance from any wall, and 24 inches in front of assembly to ensure accessibility for maintenance and testing. Clearances may vary on small units - contact the local water purveyor for special installation requirements. Sizes 2 1/2 inches and larger in diameter may require additional space on one side of the assembly. Assemblies 2 1/2 inches and larger in diameter shall have support blocks to prevent flange damage.

*An Assembly installed more than 5 feet above floor or ground level must have a permanent platform under it for the plumber, tester or maintenance person to stand on. The platform must comply with all applicable safety standards and codes in effect.

REDUCED PRESSURE BACKFLOW ASSEMBLIES' CANNOT BE INSTALLED BELOW GROUND AT ANYTIME.

Do not install in an area subject to flooding.
When installing an assembly inside a building, ensure assembly is located where occasional spitting from the relief valve port, a fouled check, or water flushed out during the annual test will not be objectionable. Proper drainage must be provided.

No galvanized or black pipe on inlet side.

REQUIREMENTS FOR AIR GAPS:

Air gap must be twice the diameter of the inlet pipe, minimum of 1 inch.
The air gap must provide a physical separation from the bottom of the inlet piping to the top of the overflow rim of the receiving vessel.
If inlet piping is cut diagonally to decrease Splashing, the air gap separation is measured from the bottom of the cut to the receiving vessel. If air gap is located near sidewalks, the separation increases to three times the diameter of the inlet piping, minimum of 1 1/2 inches.
Please note: Air gaps installed in lieu of a reduced pressure backflow assembly also require annual inspection.

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NOTES FOR REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) 2" & SMALLER

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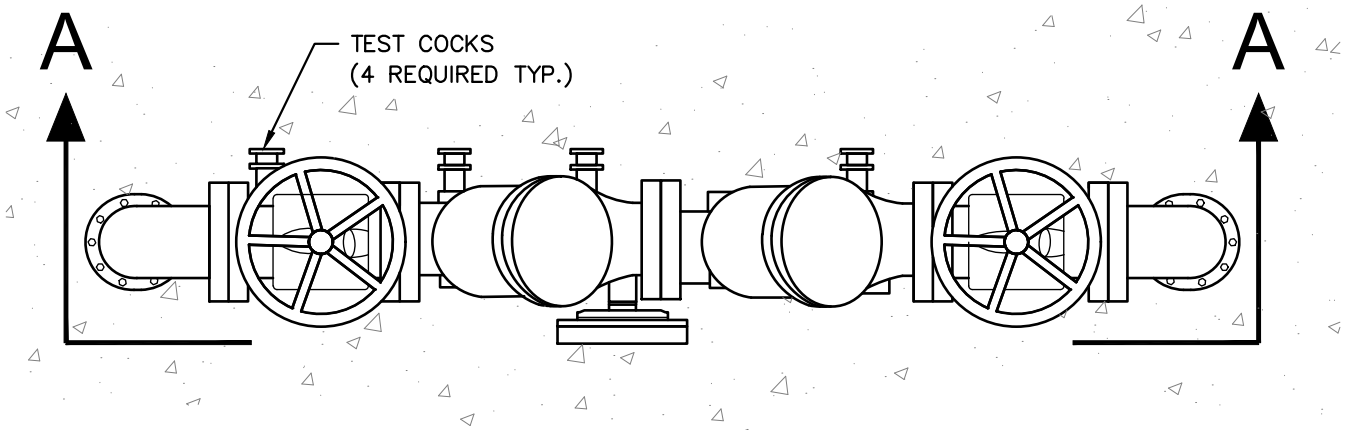
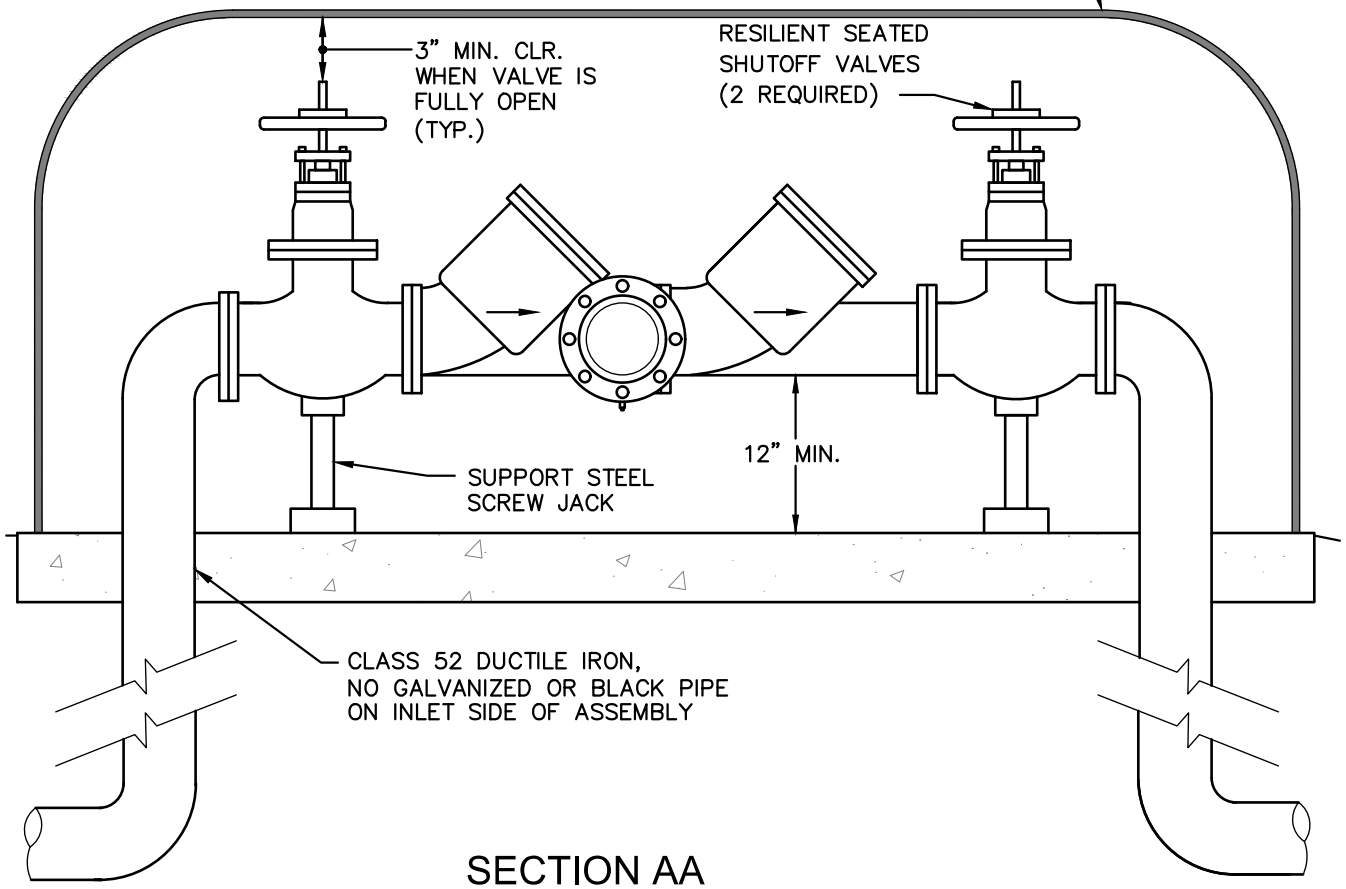


A CITY APPROVED VALVE IS REQUIRED BETWEEN THE SUPPLY MAIN & THE VAULT

PLAN VIEW
NTS

PROVIDE HEAT OR REMOVABLE INSULATED ENCLOSURE ON OUTSIDE APPLICATIONS: PRO-BOX. HOT BOX, OR EQUAL ENCLOSURES



SECTION AA
NTS

ATTENTION:
SEE SHT. W-19A FOR PROCEDURE & INSTALLATION REQUIREMENTS NOTES.

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REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) & (RPDA) 2½" & LARGER SERVICES

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1/2019	GS	NTS	W-19

Reduced Pressure Backflow Assembly Installation (RPBA) & (RPDA) 2½" & Larger

PROCEDURE REQUIREMENTS

All assemblies must be on the Washington State Approved Backflow Assembly list. This list is available through the USC Foundation approved Backflow Prevention Assemblies. For more information call the City of Shelton's C.C.S. (360) 432-5187. A plumbing permit is required; Contact the Water Purveyor for inspection of all newly installed assemblies. When testing a Reduced Pressure Detector Assembly, both assemblies must be tested and two test reports submitted to the Local Water Purveyor.

ALL ASSEMBLIES ARE REQUIRED TO BE TESTED AND SIGNED BY A WASHINGTON STATE CERTIFIED TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLIES MUST BE TESTED AFTER REPAIRS, RELOCATION OR REINSTALLATION AND IMMEDIATELY SENT TO LOCAL WATER PURVEYOR.

ASSEMBLIES MUST MEET ABOVE REQUIREMENTS TO ENSURE ACCESSIBILITY FOR TESTING, MAINTENANCE AND APPROVAL OF THE WATER PURVEYOR. VARIANCE OF ANY INSTALLATION MUST HAVE PRIOR WRITTEN APPROVAL OF THE LOCAL WATER PURVEYOR AND THE LOCAL OFFICIAL OF THE PLUMBING CODE AND IT'S INSPECTOR.

ASSEMBLY INSTALLATION REQUIREMENTS

Thoroughly flush service line prior to installation of assembly.
The unit must be:

- Installed as a unit, including two shut off valves, two check valves and four test cocks for each RPBA All assemblies are required to be installed as a unit in the configuration they were approved by USC; Plugs must be installed in all test cocks on RPBA and RPDA'S.
- Accessible for testing and maintenance,
- Protected from freezing, flooding, vandalism, and mechanical damage due to water hammer and excessive pressure.

Assemblies must be installed no higher than 5 feet from floor to centerline of assembly and a minimum of 12 inches from floor to bottom of assembly. All assemblies must be installed horizontally, unless they have Washington State and USC approval to be installed vertically. If installed in a vertical configuration, it must be a minimum of 12 inches from floor, and no higher than 5 feet* to the centerline of the #2 shut-off valve. All assemblies must maintain a sufficient clearance from any wall, and 24 inches in front of assembly to ensure accessibility for maintenance and testing. Clearances may vary on small units - contact the local water purveyor for special installation requirements. Sizes 2 1/2 inches and larger in diameter may require additional space on one side of the assembly. Assemblies 2 1/2 inches and larger in diameter shall have support blocks to prevent flange damage.

*An Assembly installed more than 5 feet above floor or ground level must have a permanent platform under it for the plumber, tester or maintenance person to stand on. The platform must comply with all applicable safety standards and codes in effect.

REDUCED PRESSURE BACKFLOW ASSEMBLIES' CANNOT BE INSTALLED BELOW GROUND AT ANYTIME.

Do not install in an area subject to flooding.
When installing an assembly inside a building, ensure assembly is located where occasional spitting from the relief valve port, a fouled check, or water flushed out during the annual test will not be objectionable. Proper drainage must be provided.

No galvanized or black pipe on inlet side.

REQUIREMENTS FOR AIR GAPS:

Air gap must be twice the diameter of the inlet pipe, minimum of 1 inch.
The air gap must provide a physical separation from the bottom of the inlet piping to the top of the overflow rim of the receiving vessel.

If inlet piping is cut diagonally to decrease Splashing, the air gap separation is measured from the bottom of the cut to the receiving vessel. If air gap is located near sidewalks, the separation increases to three times the diameter of the inlet piping, minimum of 1 1/2 inches. Please note: Air gaps installed in lieu of a reduced pressure backflow assembly also require annual inspection.

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NOTES FOR REDUCED PRESSURE BACKFLOW ASSEMBLY(RPBA) & (RPDA) 2½" & LARGER SERVICES

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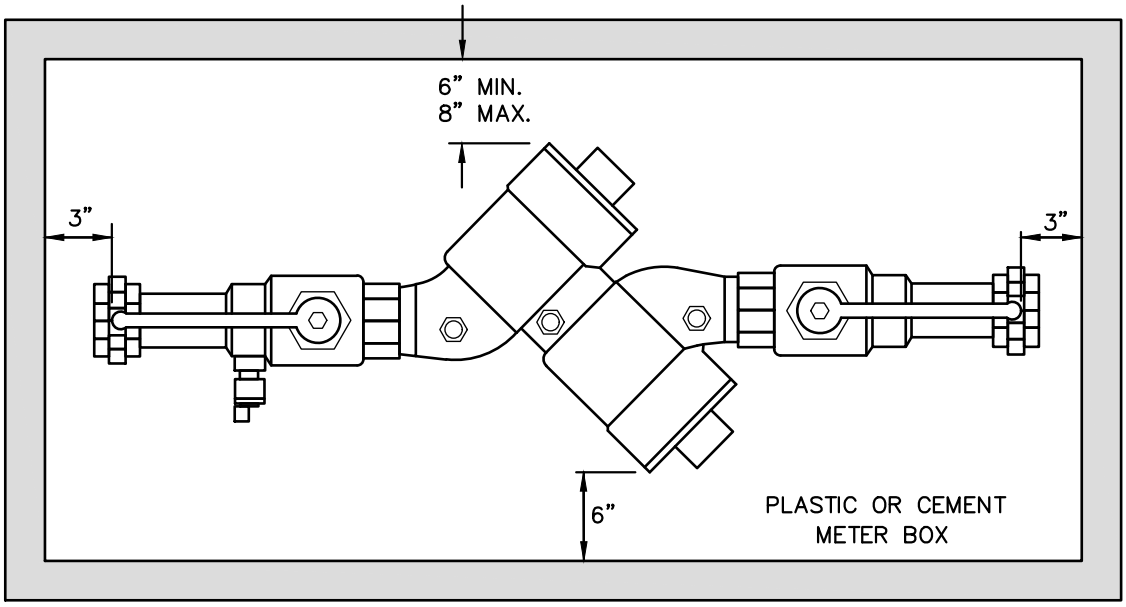
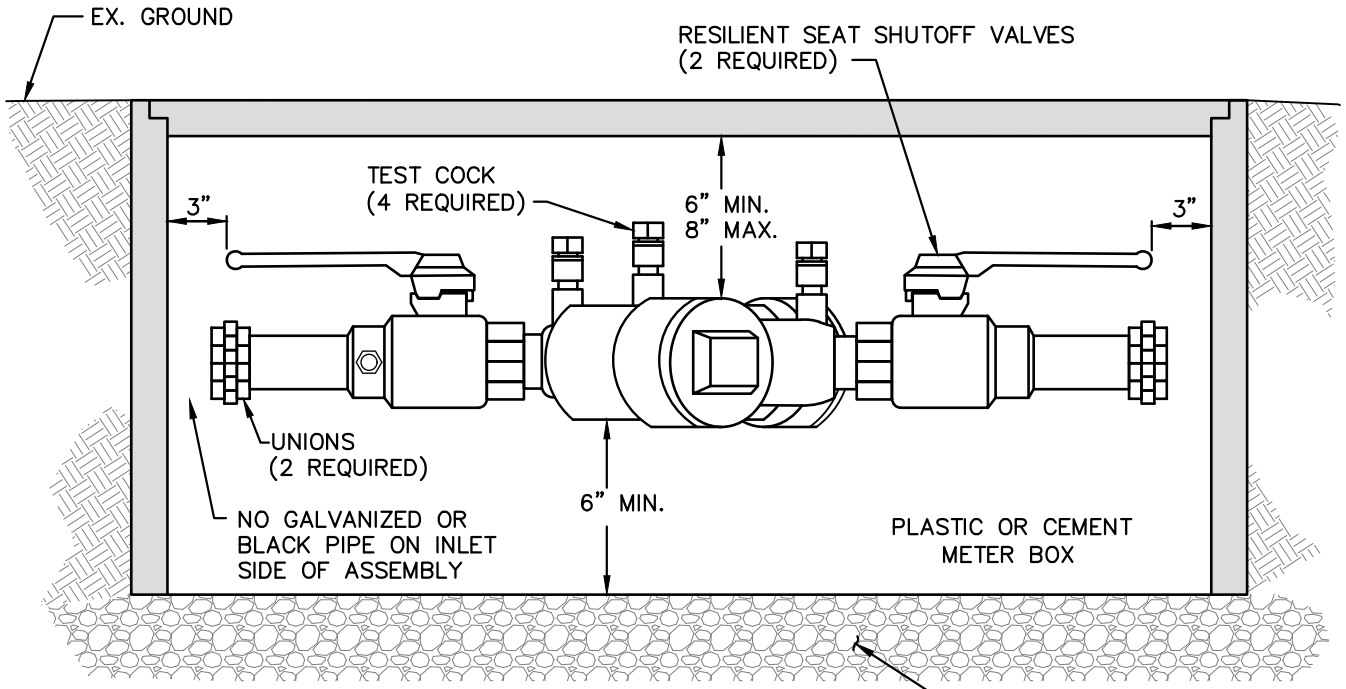


PLAN VIEW
(BELOW GROUND INSTALLATION)



SIDE VIEW
(BELOW GROUND INSTALLATION)

ATTENTION:
SEE NOTES ON SHEET W-20A FOR INSTALLATION REQUIREMENTS.

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DOUBLE CHECK VALVE ASSEMBLY (DCVA) FOR 2" & SMALLER SERVICES

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
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Double Check Valve Assembly (DCVA) - 2” and Smaller

ASSEMBLY INSTALLATION REQUIREMENTS

Thoroughly flush service line prior to installation of assembly.

The unit must be:

- Installed as a unit, including two shut off valves, two check valves and four test cocks for each DCVA All assemblies are required to be installed as a unit in the configuration they were approved by USC; Plugs must be installed in all test cocks on DCVA and DCDA'S.
- Accessible for testing and maintenance,
- Protected from freezing, flooding, vandalism, and mechanical damage due to water hammer and excessive pressure.

Assemblies must be installed no higher than 5 feet from floor to centerline of assembly and a minimum of 6 inches from floor* to bottom of assembly. All assemblies must be installed horizontally, unless they have Washington State and USC approval to be installed vertically. If installed in a vertical configuration, it must be a minimum of 6 inches from floor, and no higher than 5 feet* to the centerline of the #2 shut-off valve. All assemblies must maintain a sufficient clearance from any wall, and 24 inches in front of assembly to ensure accessibility for maintenance and testing. Sizes 2 1/2 inches and larger in diameter may require additional space on one side of the assembly. Clearances may vary on small units - contact the local water purveyor for special installation requirements. Assemblies 2 1/2 inches and larger in diameter shall have support blocks to prevent flange damage.

*An Assembly installed more than 5 feet above floor or ground level must have a permanent platform under it for the plumber, tester or maintenance person to stand on. The platform must comply with all applicable safety standards and codes in effect. If vault is 4 foot or deeper a ladder is required.

Follow all safety procedures referencing confined space entry

If installed in a vault, a small assembly requires a 6 inch clearance below the assembly with pea gravel for drainage.

When installing an assembly inside a building, ensure assembly is located where occasional spitting from the relief valve port, a fouled check, or water flushed out during the annual test will not be objectionable. Proper drainage must be provided.

No galvanized or black pipe on inlet side.

ASSEMBLIES MUST MEET ABOVE REQUIREMENTS TO ENSURE ACCESSIBILITY FOR TESTING, MAINTENANCE AND APPROVAL OF THE WATER PURVEYOR. VARIANCE OF ANY INSTALLATION MUST HAVE PRIOR WRITTEN APPROVAL OF THE LOCAL WATER PURVEYOR AND THE LOCAL OFFICIAL OF THE PLUMBING CODE AND IT’S INSPECTOR.

PROCEDURE REQUIREMENTS

All assemblies must be on the Washington State Approved Backflow Assembly list. This list is available through the USC Foundation approved Backflow Prevention Assemblies. For more information call the City of Shelton's C.C.S. (360) 432-5187.

When testing a Double Check Detector Assembly, both the main unit and the assembly on the Bypass must be tested and two test reports submitted to the Water Purveyor.

A plumbing permit is required; Contact the Water Purveyor for inspection of all newly installed assemblies.

ALL ASSEMBLIES ARE REQUIRED TO BE TESTED AND SIGNED BY A WASHINGTON STATE CERTIFIED TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLIES MUST BE TESTED AFTER REPAIRS, RELOCATION OR REINSTALLATION AND IMMEDIATELY SENT TO LOCAL WATER PURVEYOR.

CITY OF SHELTON WASHINGTON

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DOUBLE CHECK VALVE ASSEMBLY (DCVA) 2" & SMALLER SERVICES

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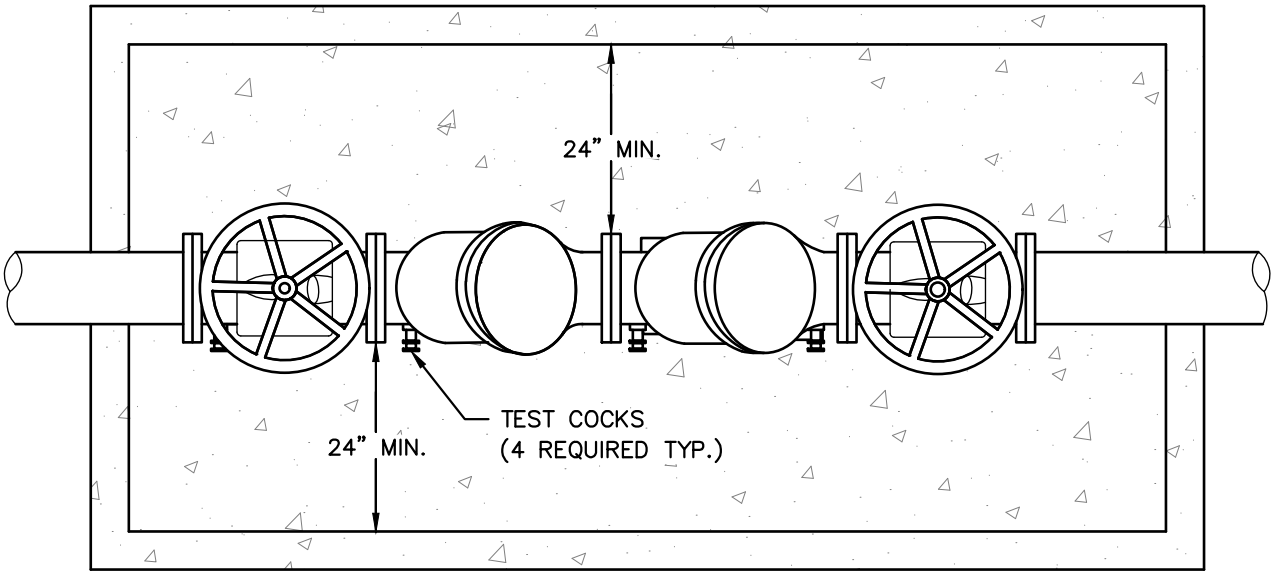
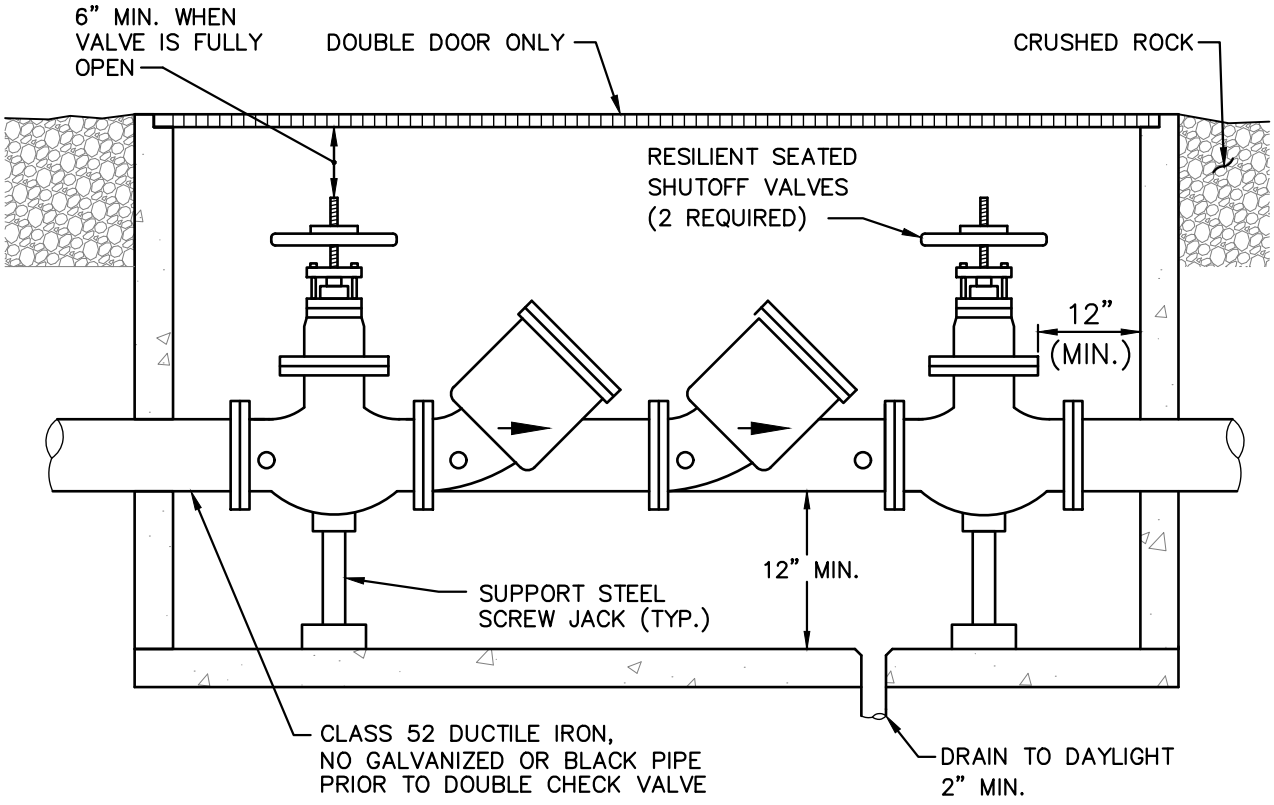


A CITY APPROVED VALVE IS REQUIRED BETWEEN THE SUPPLY MAIN & THE VAULT

PLAN VIEW
NTS

PROVIDE HEAT OR REMOVABLE INSULATED ENCLOSURE ON OUTSIDE APPLICATIONS: PRO–BOX. HOT BOX, OR EQUAL ENCLOSURES



SECTION AA
NTS

ATTENTION:
SEE SHT. W-21A
FOR PROCEDURE & INSTALLATION
REQUIREMENT NOTES.

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DOUBLE CHECK VALVE ASSEMBLY (DCVA) & (DCDA) 2½" & LARGER SERVICES

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PUBLIC WORKS DIRECTOR

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1/2019	GS	NTS	W-21

Double Check Valve Assembly (DCVA) & (DCDA) - 2 1/2" and Larger

ASSEMBLY INSTALLATION REQUIREMENTS

Thoroughly flush service line prior to installation of assembly.

The unit must be:

- Installed as a unit, including two shut off valves, two check valves and four test cocks for each DCVA All assemblies are required to be installed as a unit in the configuration they were approved by USC; Plugs must be installed in all test cocks on DCVA and DCDA'S.
- Accessible for testing and maintenance,
- Protected from freezing, flooding, vandalism, and mechanical damage due to water hammer and excessive pressure.

Assemblies must be installed no higher than 5 feet from floor to centerline of assembly and a minimum of 12 inches from floor* to bottom of assembly. All assemblies must be installed horizontally, unless they have Washington State and USC approval to be installed vertically. If installed in a vertical configuration, it must be a minimum of 6 inches from floor, and no higher than 5 feet* to the centerline of the #2 shut-off valve. All assemblies must maintain a sufficient clearance from any wall, and 24 inches in front of assembly to ensure accessibility for maintenance and testing. Sizes 2 1/2 inches and larger in diameter may require additional space on one side of the assembly. Clearances may vary on small units - contact the local water purveyor for special installation requirements. Assemblies 2 1/2 inches and larger in diameter shall have support blocks to prevent flange damage.

*An Assembly installed more than 5 feet above floor or ground level must have a permanent platform under it for the plumber, tester or maintenance person to stand on. The platform must comply with all applicable safety standards and codes in effect.

Follow all safety procedures referencing confined space entry
If installed in a vault, a small assembly requires a 12 inch clearance below the assembly with pea gravel for drainage. If vault is 4 foot or deeper a ladder is required.

When installing an assembly inside a building, ensure assembly is located where occasional spitting from the relief valve port, a fouled check, or water flushed out during the annual test will not be objectionable. Proper drainage must be provided.

A plumbing permit is required; No galvanized or black pipe on inlet side.

ASSEMBLIES MUST MEET ABOVE REQUIREMENTS TO ENSURE ACCESSIBILITY FOR TESTING, MAINTENANCE AND APPROVAL OF THE WATER PURVEYOR. VARIANCE OF ANY INSTALLATION MUST HAVE PRIOR WRITTEN APPROVAL OF THE LOCAL WATER PURVEYOR AND THE LOCAL OFFICIAL OF THE PLUMBING CODE AND IT'S INSPECTOR.

PROCEDURE REQUIREMENTS

All assemblies must be on the Washington State Approved Backflow Assembly list.

All assemblies must be on the Washington State Approved Backflow Assembly list. This list is available through the USC Foundation approved Backflow Prevention Assemblies. For more information call the City of Shelton's C.C.S. (360) 432-5187.

When testing a Double Check Detector Assembly, both the main unit and the assembly on the Bypass must be tested and two test reports submitted to the Water Purveyor.

ALL ASSEMBLIES ARE REQUIRED TO BE TESTED AND SIGNED BY A WASHINGTON STATE CERTIFIED TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLIES MUST BE TESTED AFTER REPAIRS, RELOCATION OR REINSTALLATION AND IMMEDIATELY SENT TO LOCAL WATER PURVEYOR.

A plumbing permit is required; Contact the Water Purveyor for inspection of all newly installed assemblies

ALL ASSEMBLIES ARE REQUIRED TO BE TESTED AND SIGNED BY A WASHINGTON STATE CERTIFIED TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLIES MUST BE TESTED AFTER REPAIRS, RELOCATION OR REINSTALLATION AND IMMEDIATELY SENT TO LOCAL WATER PURVEYOR.

"Building A Stronger Community TOGETHER"

NOTES FOR
DOUBLE CHECK VALVE
ASSEMBLY (DCVA) & (DCDA)
2½" & LARGER SERVICES

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-21

Spill Resistant Pressure Vacuum Breaker Assembly

ASSEMBLIES MUST MEET REQUIREMENTS SHOWN BELOW TO ENSURE ACCESSIBILITY FOR TESTING, MAINTENANCE AND APPROVAL OF THE WATER PURVEYOR. VARIANCE OF ANY INSTALLATION MUST HAVE PRIOR WRITTEN APPROVAL OF THE LOCAL WATER PURVEYOR AND THE LOCAL OFFICIAL OF THE PLUMBING CODE AND IT'S INSPECTOR.

ASSEMBLY INSTALLATION REQUIREMENTS

THOROUGHLY FLUSH SERVICE LINE PRIOR TO INSTALLATION OF ASSEMBLY.
THE UNIT MUST BE:

- ACCESSIBLE FOR TESTING AND MAINTENANCE.
- PROTECTED FROM FREEZING, FLOODING, VANDALISM, AND MECHANICAL DAMAGE DUE TO WATER HAMMER AND EXCESSIVE PRESSURE.
- ALL ASSEMBLIES MUST BE INSTALLED VERTICALLY.

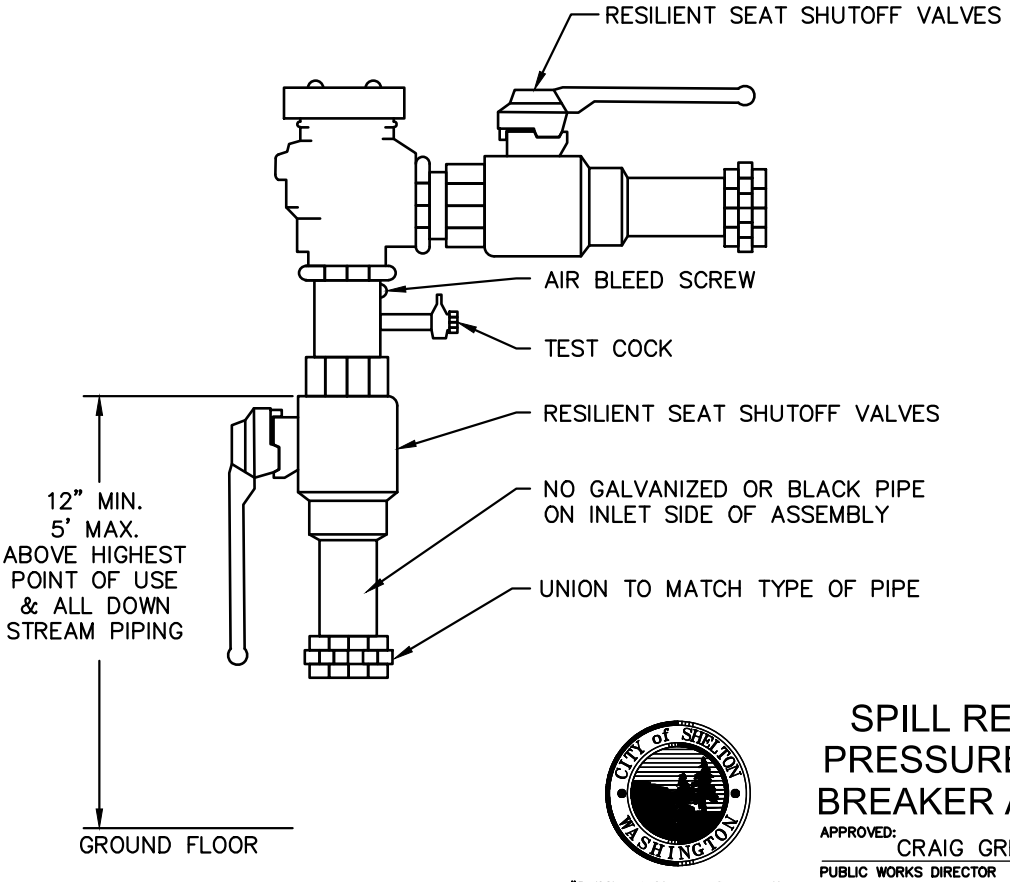
SPILL RESISTANT PRESSURE VACUUM BREAKER ASSEMBIES CANNOT BE INSTALLED BELOW GROUND AT ANYTIME

DESIGNED FOR BACK SIPHONAGE ONLY, NOT BACK PRESSURE.
WHEN INSTALLING AN ASSEMBLY INSIDE A BUILDING, ENSURE ASSEMBLY IS LOCATED WHERE OCCASIONAL SPITTING FROM THE RELIEF VALVE PORT, A FOULED CHECK, OR WATER FLUSHED OUT DURING THE ANNUAL TEST WILL NOT BE OBJECTIONABLE.
PROPER DRAINAGE MUST BE PROVIDED. NO GALVANIZED OR BLACK PIPE ON INLET SIDE.

PROCEDURE REQUIREMENTS

ALL ASSEMBLIES MUST BE ON THE WASHINGTON STATE APPROVED BACKFLOW ASSEMBLY LIST. THIS LIST IS AVAILABLE THROUGH THE DEPARTMENT OF HEALTH, (360) 236-3140.
A PLUMBING PERMIT IS REQUIRED; CONTACT THE WATER PURVEYOR FOR INSPECTION OF ALL NEWLY INSTALLED ASSEMBLIES

ALL ASSEMBLIES ARE REQUIRED TO BE TESTED AND SIGNED BY A WASHINGTON STATE CERTIFIED TESTER UPON INSTALLATION AND ANNUALLY THEREAFTER. ASSEMBLIES MUST BE TESTED AFTER REPAIRS, RELOCATION OR REINSTALLATION AND IMMEDIATELY SENT TO LOCAL WATER PURVEYOR



"Building A Stronger Community TOGETHER"

SPILL RESISTANT PRESSURE VACUUM BREAKER ASSEMBLY

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

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1/2019	GS	NTS	W-22

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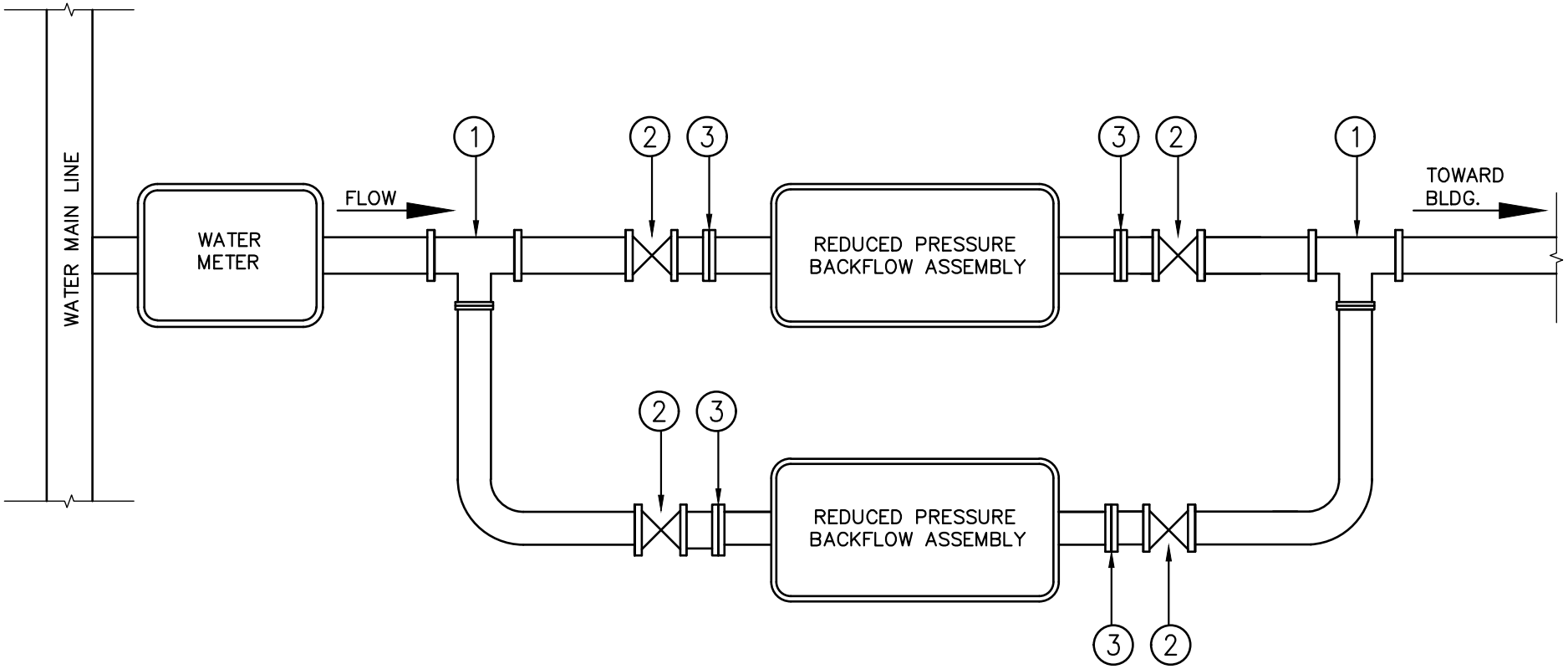


SPECIAL NOTE:

BOTH LINES MUST PROVIDE
THE SAME DEGREE OF PROTECTION.

KEYNOTES:

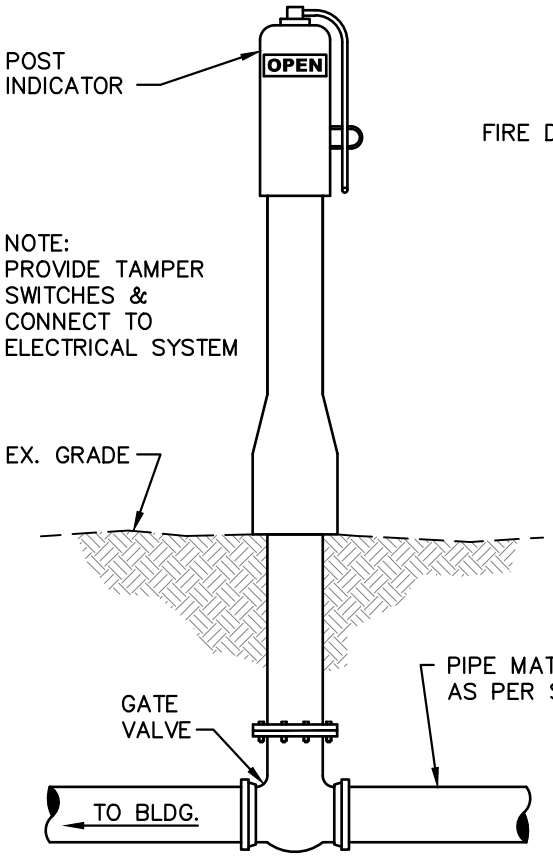
1. TEE
2. SHUT OFF VALVE
3. UNION

"Building A Stronger Community TOGETHER"

BACKFLOW BY-PASS PARALLELED ASSEMBLY

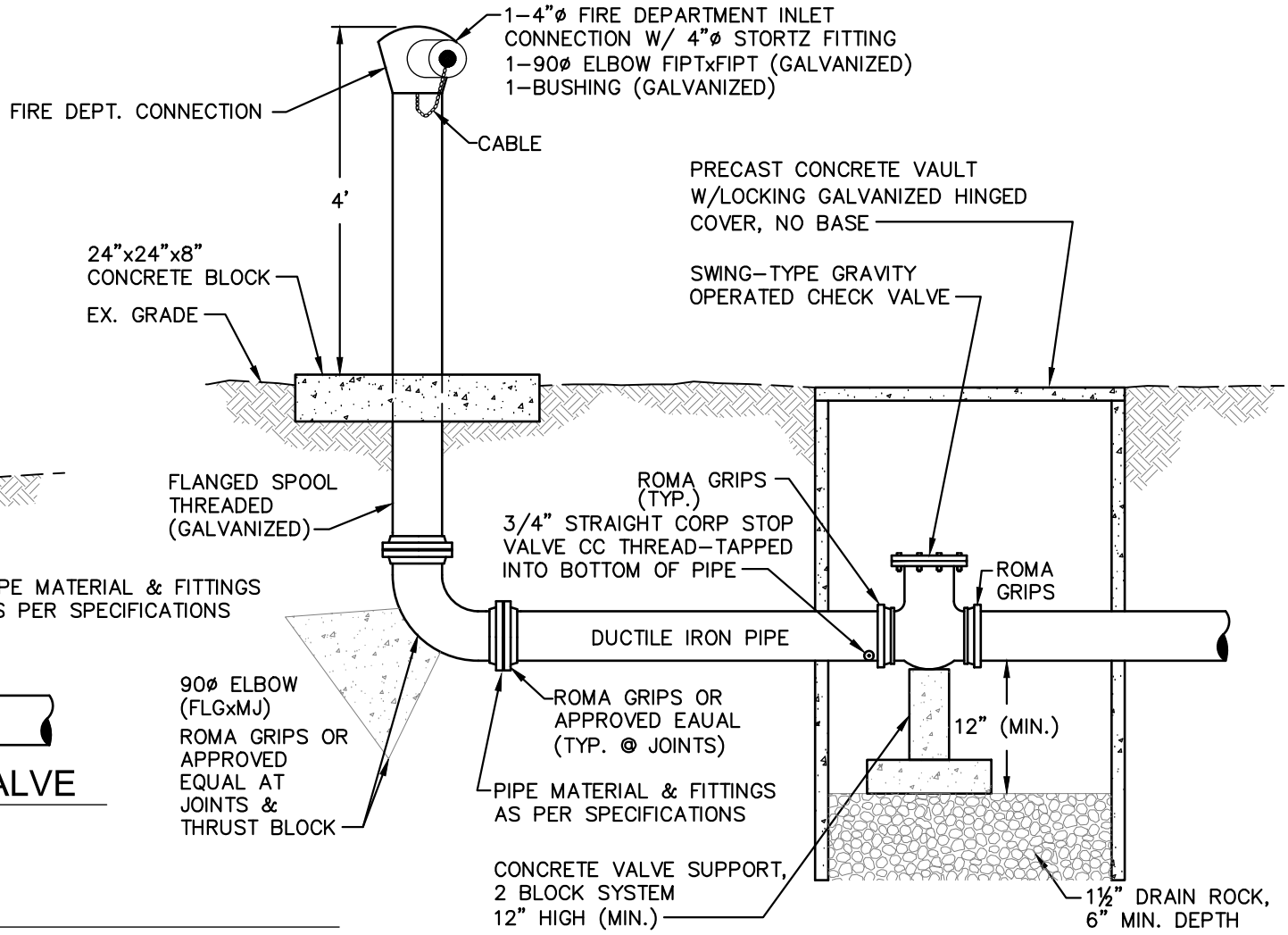
APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-25



POST INDICATOR VALVE

SCALE: NTS



FIRE DEPARTMENT CONNECTION

SCALE: NTS

NOTE:

1. ALL ABOVE GROUND PLUMBING TO BE PAINTED SAFETY RED.
2. ALL FIRE CONNECTIONS TO BE FLANGED, THREADED, VICTOLIC OR ROMA GRIPS.
3. ALL FIRE CONNECTIONS TO BE LOCATED ON THE DOWNSTREAM SIDE OF THE BACKFLOW ASSEMBLY.
4. FIRE DEPT. CONNECTION (FDC) MUST BE CONNECTED DOWNSTREAM OF THE DOUBLE CHECK VALVE ASSEMBLY (DCVA) WHETHER DCVA IS INSTALLED INSIDE OF BLDG. OR OUTSIDE IN A VAULT.

CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

POST INDICATOR VALVE & FIRE DEPT. CONNECTION

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-26

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"Building A Stronger Community TOGETHER"

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APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	W-28

C H A P T E R 5

5.000 SANITARY SEWERS

5.010 Sewer System Alterations, Extensions and Connections

To allow the City to provide timely assistance and advice, anyone who wishes to alter, extend or connect to the sanitary sewer system should contact the City as soon as possible. Any alteration of, extension of, or connection to the City of Shelton's sanitary sewer system must conform to the Comprehensive Sewer Plan, State Department of Ecology (DOE), and the Department of Health (DOH) requirements, Section 7 of the WSDOT *Standard Specifications for Road, Bridge and Municipal Construction,* and these *Standards.*

In the case of development where the property abuts a right-of-way or public easement in which a public sewer is located, or where a service connection is or can be otherwise provided, connection of all structures generating sewage shall be required. Whenever a structure that generates sewage originates within 300 feet of the public sewer, the structure shall connect to the public sewer in compliance with these *Standards.* Sewer main extensions shall be required when the property does not front on a sewer main or when the existing sewer main is not adequate for the increased use that is being proposed. The minimum extension shall be to the far property line or for corner lots, to the middle of the adjacent intersection of the right of way (alley or street). Any sewage spills on City Right of Way shall be reported to the City immediately at (360) 432-5178 during business hours, or (360) 426-4441 during non-business hours.

City utilities may be extended to properties within the Shelton Urban Growth Area only after the property is legally committed to eventual annexation per Section 1.200.

Development on new lots or sites created by subdivisions or site plans shall have a sewer service installed as required by these *Standards.* In single family subdivisions and in mobile home/manufactured home parks, a service shall be provided to each lot, site or residential dwelling unit.

Development of multi-family residential buildings (3 or more units) and commercial complexes shall have a single side sewer

or lateral installed per separate building or ownership. Duplex units shall have a separate side sewer or lateral for each living unit that connects directly to the service main.

5.020 Sewer Design Standards

The design of any sewer extension/connection shall conform to the State Department of Ecology's *Criteria for Sewage Works Design* and any applicable standards as set forth herein. The layout of extensions shall provide for the future continuation of the existing system as determined by the City. All sewers shall be designed as a gravity sewer whenever physically feasible.

Sewer mains shall be sized for the ultimate development of the tributary area as determined by the City. The minimum size for sub-mains and mains shall be 8-inch inside diameter. The minimum size for a lateral shall be 4 inches. Nothing shall preclude the City from requiring the installation of a larger sized main if the City determines a larger size or a greater installation depth is needed to meet the requirements for future service.

Gravity sewers shall be designed with a straight alignment between manholes, or as otherwise approved by the City. New gravity sewer systems shall be designed on the basis of an average daily per capita flow of sewage of not less than 100 gallons per day. See the following DOE table on Design Basis for Sewage. This figure is assumed to cover normal infiltration, but an additional allowance may be required by the City where conditions are unfavorable. Generally, laterals and sub-main sewers should be designed to carry, when running full, not less than 400 gallons daily per capita contributions of sewage. When deviations from the foregoing per capita rates are used, a description of the procedure used for sewer design shall be submitted to the City for review.

DESIGN BASIS FOR NEW SEWAGE WORKS

Discharge Facility	Design Units	Flow* (gpd)	BOD (lb/day)	SS (lb/day)	Flow Duration (hr)
Dwellings	Per person	100	0.2	0.2	24
Schools w/showers and cafeteria	Per person	16	0.04	0.04	8
Schools w/o showers and cafeteria	Per person	10	0.025	0.025	8
Boarding schools	Per person	75	0.2	0.2	16
Motels at 65 gal/person (rooms	Per room	130	0.26	0.26	24

DESIGN BASIS FOR NEW SEWAGE WORKS

Discharge Facility	Design Units	Flow* (gpd)	BOD (lb/day)	SS (lb/day)	Flow Duration (hr)
only)					
Trailer courts at 3 persons/trailer	Per trailer	300	0.6	0.6	24
Restaurants	Per seat	50	0.2	0.2	16
Interstate or through highway restaurants	Per seat	180	0.7	0.7	16
Interstate rest areas	Per person	5	0.01	0.01	24
Service stations	Per vehicle serviced	10	0.01	0.01	16
Factories	Per person per 8-hr shift	15-35	0.03-0.07	0.03-0.07	Operating Period
Shopping centers	Per 1,000 sq. ft. of ultimate floor space	200-300	0.01	0.01	12
Hospitals	Per bed	300	0.6	0.6	24
Nursing homes	Per bed	200	0.3	0.3	24
Homes for the aged	Per bed	100	0.2	0.2	24
Doctor's office in medical center	Per 1,000 sq. ft	500	0.1	0.1	12
Laundromats, 9 to 12 machines	Per machine	500	0.3	0.3	16
Community colleges	Per student and faculty	15	0.03	0.03	12
Swimming pools	Per swimmer	10	0.001	0.001	12
Theaters, drive-in type	Per car	5	0.01	0.01	4
Theaters, auditorium type	Per seat	5	0.01	0.01	12
Picnic areas	Per person	5	0.01	0.01	12
Resort camps, day & night, w/limited plumbing	Per campsite	50	0.05	0.05	24
Luxury camps w/flush toilets	Per campsite	100	0.1	0.1	24

* Includes normal filtration

Taken from: “Criteria for Sewage Works Design"
By: State of Washington Department of Ecology
December 2008 (Table G2 – 2)

Gravity sewer mains shall be Class 52 ductile iron pipe or solid wall PVC and shall conform to the requirements of WSDOT Standard Specification Section 9-05.

Gravity sewer shall be as deep as possible while still being functional and will have a typical minimum depth of 7 feet to provide gravity service to adjoining parcels, adequate head room within manholes for maintenance personnel and vertical clearance between water and sewer lines. Actual depth will be

determined by slope, flow, velocity and elevation of the existing system. Additional depth may be required by the City.

All new mains connecting to the existing system shall connect either to a new manhole or existing manhole and 180° to the lay of the main provided the manhole placement, two mains cannot meet without manhole as per Chapter 5.070 is met. See Chapter 5.040 and Standard Details SS-05 and SS-06 for requirements for building or side sewer connections.

All new mains and laterals shall include Tracer Wire.

Septic Tank Effluent Pump (STEP) systems are not allowed by the City except as approved by the City. For a grinder pump system refer to Chapter 5.170.

5.030 Connection to Existing System

Before connection to the existing system, all new sewers shall be physically plugged until all tests have been completed and the City approves the removal of the plug.

Connection of new sewer pipe lines to existing manholes shall be accomplished by core drilling and inserting a "Kor-N-Seal" boot, or as otherwise approved by the City. The transition of connecting channels shall be constructed so as not to interrupt existing flow patterns.

Connection of a sewer pipe line to a sewer system where a manhole is not available shall be accomplished by installing an approved precast base or pouring a concrete base and setting manhole sections. The existing sewer pipe shall not be cut into until approval is received from the City. At connections where an existing stub-out is not available, or where a new building sewer is the same size as the existing main, a replacement manhole shall be installed, unless otherwise approved by the City. All sewer main installations shall be per Section 5.020.

When sewer service is needed to a parcel fronting an existing sewer main, a Utility Application must be made to the City. Following approval of the application and payment of all related fees, the contractor may tap the existing sewer main and install all building side sewers or laterals required by the approved plans shall be installed by the contractor. All connections to the sewer main shall be shown on the plans. The City shall inspect the contractor’s work and testing.

Taps shall not be allowed to protrude into the existing main. The City shall be notified 48 hours prior to any tap of a City sewer and a City Inspector shall be present to witness the tap. The mainline at the tap location shall be televised after tapping and prior to approval to ensure compliance upon City direction.

When it is necessary to break out or repair an existing sewer during construction, only new pipe having the same inside diameter will be used in reconnecting the sewer. Where joints must be made between pipes with a mismatched wall thickness, the contractor shall use a flexible gasketed coupling, adapter, or coupling-adapter to make a watertight joint. Couplings shall be those manufactured by Romac or Smith-Blair for reinforced pipe and Fernco for non-reinforced pipe, or City approved equal.

Taps on PVC sewer mains shall be made with a PVC gasketed sewer main saddle wye conforming to ASTM D 3034 SDR 35, or City approved equal. Taps on a ductile iron sewer main shall be made with a Romac style CB sewer saddle with Ductile+Plus saddle, stainless steel strap and rubber gasket meeting ASTM D-2000 3 BA715 or City approved equal. See Standard Detail SS-14. The manufactured bevel on the pipe to be inserted into the saddle shall be cut off to avoid pushing the pipe into the main.

5.040 Sewer Service and Laterals

Building side sewers and lateral sewers shall be a minimum 4-inch inside diameter. Installation and maintenance of building side sewers and laterals up to the connection with the service main is the responsibility of the property owner. Prior to connection of a building side sewer or a lateral to the public sewer, an approved Utility Application must be obtained. Materials and design criteria for a building side sewer are covered by the Uniform Plumbing Code (UPC) and these *Standards.*

Each separate building shall have its own separate side sewer (per SMC Chapter 14.12.020) and each property shall have its own lateral connection to the system, except that duplex units shall have a separate side sewer or lateral for each living unit that connects directly to the service main. Laterals for single-family residential properties shall not be connected to the system at a manhole, unless otherwise approved by the City. Multifamily and commercial complexes may connect directly to

a manhole if the lateral sewer is six inches in diameter or larger and the manhole is channeled to accommodate the lateral. Manhole sizing where laterals are connected shall be the same as designated in Section 5.070 of these Standards.

Lateral sewers shall be PVC ASTM D 3034 SDR 35 with flexible gasket joints. Ductile iron pipe may be required in areas with insufficient cover. Lateral connections shall be made by a tap to an existing sewer main by a licensed and bonded contractor upon approval of the right of way permit, or by a Y branch from a new main connected above the spring-line of the pipe. PVC sewer T-Y fittings shall be GPK Products part number 113-004 to 113-0278 depending on application size, or 114-0044 to 114-0278 depending on application size, manufactured in accordance with ASTM D-3033 79 SDR 35, SDR 41, or ASTM D-3034 78 SDR 42 or SDR 35, or City-approved equal.

A cleanout is required on the lateral at the right-of-way line or easement line, unless otherwise approved by the City. Cleanout ring and cover shall be Inland Foundry, East Jordan, or City approved equal. See Standard Detail SS-10. A backflow prevention device (backwater valve) is required on the side sewer in an accessible location near the building unless otherwise approved by the City. See Standard Detail SS-07.

If the property abuts an existing sewer main, an application for sewer service shall be made by the owner of the property on which the work is to be performed or by a properly licensed and bonded contractor representing the owner. All fees required by the City shall accompany the completed application. The charge for connection to the City's sewer system is established by the City Council and may be amended by the Council from time to time as necessary. All charges incurred in establishing a connection to the City's sewer system shall be at the sole expense of the applicant.

No person other than authorized personnel of the City, or a properly permitted, licensed and bonded contractor who is approved by the City, shall make any connection to or opening into, use, alter, or disturb any part of the City sewer system or appurtenance thereto without the expressed consent of the City.

Taps shall not be allowed to protrude into the existing main. The City shall be notified 48 hours prior to any tap of a City sewer and a City inspector shall be present to witness the tap.

The mainline at the tap location shall be televised after tapping and prior to approval to ensure compliance.

Sewer main extensions shall be required when the property does not front on a sewer main or when the existing sewer main is not adequate for the increased use that is being proposed. The minimum extension shall be to a point at least 5 feet inside the prolongation of the property line.

5.050 Pressure Sewer (Force Main) Design Standards

A. Force Mains

Force mains may be considered for situations where topography makes a gravity sewer impractical.

Force mains shall be ductile iron AWWA C151 Class 52 or an approved equal. A restraint-joint pipe may be required where excess trench widths occur. All ductile iron pipe and fittings shall be Protecto 401 epoxy coated or PE lined pipe or City approved equal, and designed for use with corrosive materials.

Force mains over 2" shall have a minimum 68 inches of cover to top of pipe. This minimum assumes 42 inches cover to an 8-inch diameter water pipe and 18 inches separation from the bottom of water pipe to top of sewer line. See Section 4.060 for sanitary sewer/water main crossing requirements

The minimum velocity allowed is 2 feet per second (fps) at average dry weather flow. Two fps is required to maintain solids in suspension although 3 fps is desired to scour settled solids. Maximum velocity allowed shall be 8 fps.

B. Valves

Sewer force main valves shall be ductile iron and epoxy-coated, or PE lined and designed for use with corrosive materials. 4" to 12" valves shall be Waterous Series 500 plug valves or an approved equal.

Three valves shall be installed at each cross and two valves shall be installed at every tee. At every lift station, a force main isolation valve is required within 10 feet of the station. Valves shall be installed at all locations where the size of the pipe changes. Valves shall also be installed in-line between nodes at sufficient intervals to facilitate system repair, but shall not exceed the following:

- Every 6,000' for 4" diameter pipe
- Every 3,000' for 6" diameter pipe
- Every 1,500' for 8" diameter pipe
- Every 1,000' for 10" diameter pipe
- Every 700' for 12" diameter pipe
- Every 500' for 14" diameter pipe

C. Air/Vacuum Valves

Air release valves and air/vacuum valves shall be located at the high points of the force main within a standard 48-inch manhole or a comparable sized approved vault. Air release valves shall be fitted with an activated carbon canister to absorb compounds with disagreeable odors prior to releasing the air to the surrounding area. Grades shall be designed to minimize the need for air/vacuum valves when practical. Vehicular access to the each air release/vacuum valve is required for maintenance.

D. Force Main Drain

Provisions to drain a pressure main to facilitate repairs or to temporarily remove the force main from service shall be provided. This shall be accomplished through the use of a valved tee connected to a drain line at the low point of the line. A manhole shall be set over the force main at the valved tee.

E. Thrust Blocking

Locations of thrust blocking shall be shown on the plans. Thrust blocks shall be designed for the test pressures set forth in Section 4.170 of these *Standards.* Thrust block concrete shall be Class B poured against undisturbed earth. A plastic barrier shall be placed between all thrust blocks and fittings. Designed and approved restraining joint systems may be allowed in lieu of thrust blocking. Restraining joint brand, type, and size shall be specified on the plans. See Standard Details W-12, W-13 and W-14 for examples.

F. Force Main Termination

Hydrogen sulfide odors (H_2S), and the buildup of sulfuric acid (H_2SO_4) occur in the operation of a force main. To mitigate these conditions, some type of control method(s) shall be used.

This may include chemical addition at the pump station and/or the re-aeration of the wastewater at or near the terminus. Re-aeration may include the following:

1. Construction of a vault housing and aspiration assembly.

2. The use of a hydraulic fall (vertical siphon) within the terminal manhole.

3. High velocity discharge with smooth transition so as to not cause splashing of force main into the downstream gravity sewer.

These methods all require an adequate source of fresh air at the vault or manhole. At a minimum, the manhole at the terminus and the first manhole downstream of the terminus shall be coated with Tnemec 120 vinyl ester, Quantum polymorphic resin or approved equal, under the direction of the product representative. If new gravity manholes are to be installed, two PVC lined manholes shall be installed downstream of the force main terminus. Aerators shall be contained within an appropriately sized manhole or suitably constructed building.

The pressure main discharge shall be made with a smooth transition of flow into the existing flow so as not to cause

5.060 Sanitary Sewer/Water Main Crossings

See Section 4.060 for requirements regarding sewer main and water main separation at crossings.

5.070 Manholes

Manholes shall be provided at a maximum of 300-foot intervals. Manholes shall be provided at all intersections, at changes in direction, at changes in grade, or where the pipe size changes. Mastic is required between risers and between risers and castings. A shim will be required under the frame to prevent settling. Minimum slope through the manhole shall be 1/10th of one foot from invert "in" to invert "out". The manhole cone shall be offset to be located out of the tire track of a traveled lane.

Precast manholes shall meet the requirements of ASTM C 478 with a precast base or a cast-in-place base made from 3000 psi structural concrete. Sanitary sewer manholes shall be 48-inch

diameter minimum. The minimum clear opening in the manhole frame shall be 24-inches. Where a drop manhole is used, a larger opening may be required. Joints shall be rubber gasketed conforming to ASTM C 443 and shall be grouted from the inside and outside with an approved grout and installed per the manufacturer's recommendations. Lift holes shall be filled entirely with grout. Acceptance of precast manholes, inlets and catch basins will be based on the presence of a "WSDOT Inspected" stamp or tag provided in the field, as specified in Section 9-4.41 of WSDOT Construction Manual and Section 9-12 of the State of Washington's *Standard Specifications*. See Details SS-01 and SS-02.

Manhole covers and frames shall be hinged lid *East Jordan* within paved areas or unless approved by Public Works Director. See Standard Detail SS-11. Manhole rings and covers shall be free of porosity, shrink cavities, cold shuts or cracks, or any surface defects which would impair serviceability.

Repairs of defects by welding or by the use of smooth-on or similar material will not be permitted. Manhole rings and covers shall be machine-finished or ground-on seating surfaces so as to assure a non-rocking, self-seating (easily removed and replaced without the use of a sledge hammer) fit in any position and be interchangeable in other standard manhole frames. All castings shall be coated with a bituminous coating prior to delivery to the job site.

Lock-type covers shall be required in all multi-family complexes, on school grounds, on manholes containing odor control devices and as determined by the City. Where lock-type castings are required, the casting device shall be such that the cover may be readily released from the ring and all movable parts shall be made of non-corrosive materials and otherwise arranged to avoid possible binding. See Detail SS-11.

Safety steps shall be fabricated of polypropylene conforming to an ASTM D-4101 specification, injection molded around a 1/2-inch ASTM A-615 grade 60 steel reinforcing bar with anti-slip tread, per Section 7 of WSDOT *Standard Specifications*. Steps shall project uniformly from the inside wall of the manhole. Steps shall be installed to form a continuous vertical ladder with rungs equally spaced on 12-inch centers.

Manhole sizing shall be determined by the following criteria:

A. 48-inch Manhole

1. 2 connecting pipes, 8-inch to 12-inch diameter.

2. 3 connecting pipes, 8-inch to 10-inch diameter, 90 to 120 degrees between all pipes.

3. 4 connecting pipes, 8-inch diameter, perpendicular.

B. 54-inch Manhole

1. 2 connecting pipes, 8-inch to 12-inch with less than 45 degrees deflection. Deflection=angle between any two pipe channels in the manhole.

2. 3 connecting pipes, 10-inch to 12-inch diameter, 90 to 120 degrees between all pipes.

3. 4 connecting pipes, 10-inch to 12-inch diameter, perpendicular.

C. 72-inch Manhole

1. 2 connecting pipes, 15-inch to 18-inch diameter with less than 45 degrees deflection.

2. 3 connecting pipes, 15-inch diameter, 90 to 120 degrees between all pipes

3. 4 connecting pipes, 15-inch diameter, perpendicular

The above configurations shall provide adequate shelves and room for maintenance and performing TV inspections. For other sewer pipe configurations, the size of the manhole shall be approved by the City.

5.080 Slope

All sewers shall be designed and constructed to give mean velocities, when flowing full, of not less than 2.0 feet per second based on Manning's formula using an "*n*" value of 0.013. Use of other practical "*n*" values may be permitted by the City if deemed justifiable on the basis of field data submitted. The following minimum slopes should be provided; however, slopes greater than these are desirable.

MINIMUM SLOPE

Sewer Size (inches)		Minimum %Slope (Feet per 100 Feet)
6		1.0 (0.0100 Ft/Ft)
8		0.40 (0.0040 Ft/Ft)
10		0.28 (0.0028 Ft/Ft)
12		0.22 (0.0022 Ft/Ft)
14		0.17 (0.0017 Ft/Ft)
15		0.15 (0.0015 Ft/Ft)
16		0.14 (0.0014 Ft/Ft)
18		0.12 (0.0012 Ft/Ft)
21		0.10 (0.0010 Ft/Ft)
24		0.08 (0.0008 Ft/Ft)
27		0.07 (0.0007 Ft/Ft)
30		0.07 (0.0006 Ft/Ft)
36		0.05 (0.0005 Ft/Ft)

Sewers shall be laid with uniform slope between manholes. Under special conditions, slopes slightly less than those required for the 2.0 feet per second velocity may be permitted by the City. Such decreased slopes will only be considered where the depth of flow will be 0.3 of the diameter or greater for design average flow. Whenever such decreased slopes are proposed, the engineer shall furnish computations of the depths of flow in such pipes at minimum, average, and daily or hourly rates of flow. Larger pipe size shall not be allowed to achieve lesser slopes unless otherwise approved by the City.

The maximum tolerance from true line and grade shall be as follows:

A. Maximum deviation from established line and grade shall not exceed .0026 feet (1/32-inch) per inch of pipe diameter, and not exceed .042 feet (1/2-inch) per pipe length.

B. No adverse grade in any pipe length will be permitted.

C. The difference in deviation from established line and grade between two successive joints shall not exceed 1/3 of the amounts specified above.

5.090 High Velocity Protection

Where velocities greater than 15 feet per second are expected, special provisions shall be applied such as thrust blocking,

abrasion-resistant manhole and pipe materials, and anti-abrasive coatings as required by the City.

Anti-abrasive coatings shall be Tnemec 120-5002 Vinester (vinyl ester) for prime coat, and Tnemec Series 120-5001 Vinester (vinyl ester) for the finish coat, applied in a neat and workmanlike manner in accordance with the manufacturer's recommendations, or City-approved equal.

5.100 Drops

Straight grades between inverts of manholes are preferred over drops. Care must be taken when designing steep grades so as not to create a situation of excessive velocity or excavation.

Drops may be allowed as approved by the City.

An inside drop connection shall be provided for a sewer entering a manhole at an elevation of 24-inches or more above the manhole invert. Where the difference in elevation between the incoming sewer and the manhole invert is less than 24 inches, the invert shall be filleted to prevent solids deposition. An outside drop will not be allowed unless specifically approved by the City Public Works Director. Drop structures shall be constructed per Standard Details SS-08 and SS-09.

5.110 Lampholes

Lampholes are not an acceptable substitute for manholes. However, lampholes may be used in lieu of manholes at the end of 6 or 8 inch diameter lines, when approved by the City. This does not include a 6 inch building or side sewer to serve one or two single-family dwellings. Location of the cleanout for a building sewer is governed by the Uniform Plumbing Code.

All lampholes in City right-of-way shall be extended to grade. A cast iron ring and cover shall be installed around all lampholes. See Standard Detail SS-13.

5.120 Staking

All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The engineer or surveyor directing such work shall be licensed as a professional engineer or professional land surveyor by the State of Washington. All construction staking shall be

inspected by the City prior to construction. The minimum staking of sewer lines shall be as follows, or as otherwise directed by the City:

A. Stake the location of mainline pipe every 50-feet with cut to invert of pipe.

B. Stake the location of all manholes for alignment and grade with cut or fill to rim and invert of pipes with a minimum of two offsets.

C. Stake the location of all laterals and cleanouts at the property line.

Any deviations from these minimum staking requirements shall be approved by the City.

5.130 Trench Excavation and Pipe Laying

Clearing and grubbing shall be performed within the easement where required, or within the public right-of-way as permitted by the City. Debris resulting from the clearing and grubbing shall be disposed of by the contractor in accordance with the terms of all applicable permits and regulations. Track-mounted equipment shall not be allowed on City streets and public rights-of-way outside of the approved project boundaries unless authorized by Public Works Director.

The contractor shall perform all excavation of every description. Where native materials are unsuitable for pipe bedding (i.e. boulders, hardpan, clay, rocks, roots and other obstructions) the materials shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below sewer grade. Where materials are removed from below sewer main grade, the trench shall be backfilled to grade with material meeting pipe bedding specifications and thoroughly compacted.

Trenches shall be excavated to the line and depth approved by the City. Except for unusual circumstances where approved by the City, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space. When the support of existing utilities or public safety concerns exist, the City may require more stringent trenching standards. Trenching, shoring and pipe laying shall be in conformance with Washington Industrial Safety and Health Administration

(WISHA), Washington Department of Labor and Industries (L&I) and the Office of Safety and Health Administration (OSHA) Safety Standards. Surface water shall be diverted so as not to enter the trench. Where water is encountered in the trench, it shall be removed during pipe laying operations, and shall be so maintained until the ends of the pipe are sealed and provisions are made to prevent floating of the pipe. Trench water or other deleterious materials shall not be allowed to enter the pipe at any time. The contractor shall maintain sufficient pumping equipment on the job to ensure that these provisions are all carried out. Disposal of all trench water shall meet all local, state and federal guidelines.

The contractor shall handle all types of pipe in a manner that will prevent damage to the pipe. Pipe and fittings shall be loaded and unloaded using hoists and slings in a manner to avoid shock or damage, and under no circumstances shall pipe be dropped, skidded, or rolled against another pipe. If the Inspector determines that the contractor's methods are damaging to the pipe, the contractor shall correct the handling methods. Damaged pipe will be rejected, and the contractor shall immediately place all damaged pipe apart from undamaged pipe, and shall remove damaged pipe from the site within 24 hours. Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations, and any pipe or fitting that has been installed with dirt or foreign material in it shall be removed, cleaned and re-laid. A clean whisk broom shall be used for this purpose, and for brushing to remove foreign matter prior to joining of pipe ends. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or by other means approved by the Engineer, to ensure cleanliness inside the pipe.

Pipe shall be stacked in such a manner as to prevent damage to the pipe, to prevent dirt and debris from entering the pipe, and to prevent any movement of the pipe. The bottom tiers of the stack shall be kept off the ground on timbers, rails or other similar supports. Pipe on succeeding tiers shall be alternated by bell and plain end. Timbers 4-inches by 4-inches in size shall be placed between tiers, and chocks shall be placed at each end to prevent movement. For public safety, each size of pipe shall be stacked separately.

The trench bottom shall be finished to grade with hand tools in such a manner that the pipe will have bearing along the entire

length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to make up the joint.

Pea gravel backfill will be allowed only to the spring line of the sewer main pipe. For additional requirements regarding trench backfilling, temporary patching and pavement restoration, see Chapter 2 of these *Standards.*

5.140 Testing

A. Gravity Sewer Main

Immediately following pipe cleaning, the gravity sewer pipe installation shall be tested with low pressure air per WSDOT Standard 7.17.3.

The contractor shall make an air test for his own purposes prior to notifying the City to witness the test. The acceptance air test shall be made after the trench is backfilled and compacted and the roadway section is completed to subgrade.

All wyes, tees, and ends of building or side sewer stubs shall be plugged with flexible joint caps, or acceptable alternates and securely fastened to withstand the internal test pressures. Such plugs or caps shall be readily removable and their removal shall provide a socket suitable for making a flexible jointed lateral connection or extension.

Prior to approval and acceptance of gravity sewer construction, gravity sewer pipes shall be subject to a low pressure air test and meet a 4 psi for 15 minutes standard. A mandrel test or equivalent shall be required on all sewers except laterals. The contractor shall furnish all equipment and personnel for conducting the tests.

Testing of the gravity sewer main shall include a television inspection by the contractor. The camera must be equipped with a rotating head to allow televising of the building or side sewers as mainline inspection is occurring. Any tap to an existing sewer system also needs to be inspected by television.

Television inspection shall be done after the air test has been approved and before the roadway is paved. Immediately prior to a television inspection, enough water shall be run down the line so it comes out the lower manhole.

One copy of the videotape and any accompanying written report shall be submitted to the City. Camera work must be completed utilizing the latest version of Cues' GraniteNet Software, or as approved by the City. Acceptance of the gravity sewer line will be made after the tape has been reviewed by the City.

B. Manholes

A water or a negative air pressure (vacuum) test of all manholes on the gravity sewer line is also required.

1. The water test shall be made by the contractor by filling the manhole up with water and letting it sit for 24 hours to allow the water to saturate the concrete. After 24 hours the manhole shall be filled to the top of the cone. The water cannot drop more than 0.05 gallons in 15 minutes per foot of head above invert to pass.

2. The negative air pressure (vacuum) test may be used for testing concrete manholes. After backfilling, plug all inverts and lift holes with plugs suitably rated for the test pressures. Plugs shall be placed a minimum of 6 inches beyond the manhole wall. Once the vacuum tester head assembly is suitably attached to the tip of the manhole, the manhole shall be evacuated to 10 inches Hg (0.3 bar). Once a vacuum of 10 inches Hg (0.3 bar) is attained, the contractor and the City Inspector will monitor to ensure the vacuum does not drop in excess of 1-inch Hg over the time specified in the table below. If the manhole fails the test, the contractor will identify and seal the leak and retest until satisfactory. This procedure shall be repeated after backfilling for final acceptance.

VACUUM TEST TIMETABLE

	Manhole Diameter in Inches		
Depth	**48-Inch**	**60-Inch**	**72-Inch**
4 feet	10 seconds	13 seconds	16 seconds
8 feet	20 seconds	26 seconds	32 seconds
12 feet	30 seconds	39 seconds	48 seconds
16 feet	40 seconds	52 seconds	64 seconds
20 feet	50 seconds	65 seconds	80 seconds
24 feet	60 seconds	78 seconds	96 seconds

VACUUM TEST TIMETABLE

Depth	Manhole Diameter in Inches		
	48-Inch	**60-Inch**	**72-Inch**
*	0.5 seconds	6.5 seconds	8.0 seconds
***** Add "I" times for each additional 2-foot depth. (The values listed above have been extrapolated from ASTM designation C924-85.)			

C. Force Mains

Prior to acceptance of force main construction, force main and service lines shall be subjected to a hydrostatic pressure test of 200 pounds for 4 hours and any leaks or imperfections developing under said pressure shall be remedied by the contractor. No air will be allowed in the line. The force main shall be tested between valves. Insofar as possible, no hydrostatic pressure shall be placed against the opposite side of the valve being tested.

The contractor shall provide all necessary equipment and shall perform all work connected with the tests. Tests shall be made after all connections shown on the plans have been made. The contractor shall perform all tests to ensure that the equipment to be used for the test is adequate and in good operating condition and the air in the line has been released before requesting the City to witness the test.

A water test for all wet wells in accordance with the manhole water test for gravity sewers shall be required.

5.150 Sewer Lift Station Design Standards

The design of any public sewer lift station shall conform to the Department of Ecology's *Criteria of Sewage Works Design* and these *Standards* as applicable. Public lift stations shall conform to the Uniform Plumbing Code and these *Standards* as applicable. The City may require some lift station applications to be customized, depending on the size of service area, introduction flow to the station and the pumping requirements of the station.

Five copies of a Design Report with engineering plans shall be submitted with each lift station (custom designed or packaged), demonstrating its conformance with the *Standards.* The design report and plans shall provide:

A. Overall site drawing(s) of the lift station showing the location of all components including elevations;

B. List(s) of specific materials and components used including quantity, description, manufacturer and area representative;

C. Schematic and line diagrams of the service, motor control center and lift station. Terminology and abbreviations shall be per industry standards. A legend shall be provided on all schematics and line diagram, which shall show applicable telemetry points. A common termination point shall be provided in the lift station to interface between the lift station and the Remote Telemetry Unit (RTU). Telemetry points shall consist of:

- High Wet Well
- 1 Pump Run
- Power Fail
- Intrusion
- Low Wet Well
- 2 Pump Run
- Pump Fail for each pump
- Spare

D. An electrical system designed to meet NEC, State and City standards. A 460/277 three-phase system with 100 amp outlet and cover shall be provided, equipped with an Appleton reverse service receptacle, model ADR1044-RS for connection to an emergency generator in the event of a power failure, or a City-approved equal. The receptacle outlet cover shall be painted red.

E. All pumps shall have rail guides to facilitate removal and replacement.

F. Pump Data:

- Size and type
- Pump curves
- Head capacity
- Velocity
- Manufacturer/distributor

G. Motor Data:

- Size and type
- Horsepower
- Service factor
- Motor insulation
- Cycle length
- Full load amps
- Voltage
- Frame and type of mount
- Manufacturer/distributor

H. Controls

- Timers and relay mounting
- Motor starter size
- Phase monitor
- NEMA type enclosure
- Thermal magnetic circuit breakers
- Alternator
- GFI outlet
- Indicating lights
- Level controls approved by City
- Telemetry failure points
- Elapse time meters
- Component manufacturer/distributor

I. Telemetry

- Alarm system (compatible with City system)

J. Housing

- Size and type
- Ventilation
- Access
- Insulation
- Locking mechanism
- Hold open device
- Safety chain

K. Testing

- Factory test
- Operational test
- Pressure test
- Personnel at test

L. Piping and Valves

- Size and type
- Bypass
- Manufacturer/distributor

M. Spare Parts

- Spare motor
- One complete mechanical seal unit
- Two intrinsically safe relays
- One set of replacement O-rings for all components
- Spare gaskets for all components

N. Miscellaneous: Water hose big service (unmetered) connected to a double check valve assembly mounted to the side of the lift station.

O. A lift station emergency by-pass connection shall be installed.

5.160 Packaged Lift Stations

In addition to provisions of Section 5.150, the following are minimum requirements for packaged lift stations.

A. Three mercury float switches or transducers as approved by the City to control pump down levels in the wet well. Each float shall function as follows: two pumps run; one pumps run and pumps off.

B. One mercury float switch or transducer as approved by the City in the wet well to signal low wet well conditions.

C. One mercury float switch or transducer as approved by the City in the wet well to signal high wet well conditions.

D. Auxiliary Power: Provision for connection required of all lift stations. The developer may also be required to furnish or participate in the cost of an auxiliary generator, at the discretion of the City.

E. Well Sizing:

- Type

- Size
- Storage capacity
- Access
- Access to locking mechanism
- Welding
- Safety entry equipment

F. Maintenance:

- Warranty
- Staff training upon completion
- Tools and equipment required

G. Electrical Service

- Specifications (service size, voltage, motor size, enclosure type, etc.)
- Source of power
- Calculations
- Single line diagram
- Primary distribution equipment
- Service entrance
- Branch circuiting
- Mechanical equipment power requirements
- Control diagrams and schematics
- Schedules of fixtures, panel boards and switch gear
- Shop drawings

H. Corrosion Protection

- Type of materials
- Primer and finish coatings
- Total thickness in mils, dry
- Linings
- Maintenance

I. The control pump down mercury float switches in the wet well must be powered through intrinsically safe devices.

J. Mercury float switches or transducers as approved by the City in the wet well shall be separated from each other by means of a wooden board and spaces to prevent tangling.

K. Wet well ladder rungs shall not extend beyond the specified inlet pipe invert elevation into the wet well.

L. Inlet pipes into the wet well shall be baffled to reduce turbulence in the wet well.

M. Lift station motors and pumps shall be close coupled and mounted vertically.

N. A manual toggle switch to allow selection of lead and lag pump is required.

O. A five-digit hour meter to 1/10 hour increments is required for each pump so that run time can be accounted for.

P. The heater shall be controlled by an adjustable thermostat.

Q. Lift stations shall have a blower capable of a minimum 300 cfm.

R. Pump motors shall have sealed bearings requiring no lubrication.

A complete operation and maintenance manual from the lift station manufacturer shall be supplied. Two copies shall be submitted for the initial review. Upon completion of construction, 5 copies are to be submitted to the City. Specific components and model numbers shall be in the manual.

5.170 Private Grinder Pump Systems

All grinder pump systems shall be privately owned. A private grinder pump system may be installed to serve single-family residential, multi-family residential, and certain commercial and industrial applications where approved by the City. Private grinder pump systems will only be allowed where the City has accessible sewer service that is at an elevation generally higher than the subject property. The purpose for permitting private grinder pump systems and requiring a Grinder Sewer System Agreement is to provide a mechanism that alerts future property owners of the presence of a pressurized sewer system on the property. Although the on-site system is private, the Public Works Department requires specific wet well and pump standards in addition to inspection and testing of the system to reduce the likelihood of inflow and infiltration of groundwater into the City's sanitary sewer system and to insure that the pump head and pressure are

compatible with the existing sewer system. The system must meet *City Standards* for Cross Connection Control (see section 4.160).

If an entire plat is approved for private grinder pump systems, Grinder Sewer System Plat Covenants shall be included on the plat in lieu of the individual Grinder Sewer System Agreement.

A Private Grinder Sewer System is an on-site facility consisting of a wet well for collecting gravity effluent from the building, and a grinder pump situated in the wet well to process the effluent into a slurry and convey it into the City sewer system.

Operation and maintenance of the entire system, including, but not limited to, the wet well, pump, controls and piping, from the structure to the City sewer main is the responsibility of the property owner. The property owner shall maintain access to the wet well to facilitate maintenance of the system. The wet well lid should not be covered or buried although the owner may place a birdbath, potted plant or other yard decoration on the lid as long as it can be readily removed for repair or maintenance.

Private grinder pump systems located on commercially zoned properties that have kitchen or cooking facilities such as churches, community gathering places, restaurants, schools, etc., shall require installation of a grease trap per the Uniform Plumbing Code (UPC). The grease trap shall be installed on the gravity building sewer between the building and the wet well. Grease traps shall be maintained by the customer to the satisfaction of the City and DOH requirements.

Commercial private grinder pump systems and wet wells installed for the purpose of pumping industrial cleaning effluent, truck wash bays or car washes shall require the installation of an oil/water separator prior to the wet well.

Excessive use of a garbage disposal may clog the pump and piping assembly. The City encourages composting food materials instead of using a garbage disposal with grinder systems.

Only sanitary wastewater shall be discharged into the wet well. Roof drains and other storm water sources shall be strictly prohibited.

The property owner shall be responsible for curtailing water usage in the event of a high water alarm or a power outage. In the event of an extended power outage, the property owner may have to have the wet well pumped to avoid a sewage backup on the property or into the structure.

A. Design Standards

The design of any sewer shall meet all applicable standards and specifications as specified herein and as outlined in Section 5.020. Engineered plans are not required for private, on-site systems, however, a Grinder Sewer System Application complete with a sketch and submittals for the pumping system are required. In addition, either a Grinder Sewer System Agreement or Plat Covenants is required. If the property is located outside the City limits and within the City's Urban Growth Management Area boundary, a Special Power of Attorney for Annexation is required as a condition of service.

B. Building Sewer and Service Lateral

The gravity building sewer pipe between the building and the wet well shall be designed and installed in accordance with the Uniform Plumbing Code and Section 5.040. A cleanout shall be installed on the gravity building sewer, located between the structure and the tank, raised to grade and installed per the plumbing code. A backwater valve per Section 5.040 is required on the gravity line downstream of the cleanout and prior to the wet well.

The pressure service line from the pump to the City main shall be schedule 80 PVC water pipe, solvent weld joint located at 90 degrees to the mainline when possible. Solvent cements and primer for joining PVC pipe and fittings shall comply with ASTM D 2564 and shall be used as recommended by the pipe and fitting manufacturers. Solvent weld fittings for 1 and 2-inch pipe shall be socket type Schedule 80 and shall comply with ASTM D 1784 and ASTM D 2466. Pressure sewer services shall have a minimum 24-inches cover to top of pipe.

All pressure pipes shall be installed with continuous tracer tape installed 12 to 18-inches under the proposed finished grade. The marker tape shall be plastic, non-biodegradable, metal core or backing that can be detected by a standard metal detector. Tape shall be Terra Tape "D" or approved equal.

C. Pressure Lateral Valve and Valve Boxes

A ball valve shall be required at the end of the service stub at the property line. Ball valves at the property line shall be 1-1/4 or 2-inch Philmac FIPT *x* FIPT ball valves or approved equal. Valves shall be left in the "off" position and have a threaded plug installed in the end until the lot is inspected and approved for connection.

A check valve is required at the end of the service stub at the property line and shall be installed horizontally in a valve box along with the ball valve mentioned above. Check valves shall be a tee or wye pattern swing check rated for a minimum working pressure of 150 psi. Check valves shall be King Brothers, KSC or approved equal.

All valves shall be designed for use with corrosive fluids.

The valve box lid shall be marked "Sewer" so they can quickly be distinguished from valves in the water system. Valve boxes located in traffic areas shall be rated for traffic bearing loads.

D. Wet Well

The wet well tank shall be high density polyethylene (HDPE), fiberglass, or as approved by the City. Both shall be designed specifically to function as a sewer wet well for use in corrosive environments and shall be sized for the pump and the specific contributory flows.

All tanks shall be furnished with one EPDM grommet fitting to accept a 4-1/2-inch outside diameter schedule 40 sewer pipe.

The access-ways shall be an integral extension of the wet well and include a lockable cover assembly. Access-way design and construction shall facilitate field adjustment rings in increments of 3-inches without the use of any adhesives or sealants requiring cure time before installation can be completed.

All wet wells shall have all the necessary penetrations molded in and factory sealed. To ensure a leak-free installation, no field penetrations shall be acceptable.

All discharge piping shall be constructed of 304 series stainless steel and terminate outside the access-way bulkhead with a stainless steel, 1-1/4-inch female NPT fitting. The discharge

piping shall include a stainless steel ball valve rated for 200 psi.

The access way shall include a single NEMA 6P electrical quick disconnect for all power and control functions, factory installed with access way penetrations warranted by the manufacturer to be watertight.

The access-way shall also include a 2-inch PVC vent to prevent sewerage gases from accumulating in the tank.

HDPE wells shall have a melt index of 2.0 grams/10 minutes or lower to assure high environmental stress cracking resistance. Corrugated sections are to be made of a double wall construction with the internal wall being generally smooth to promote scouring. Any incidental sections of a single wall portion of the double wall construction area are to be a minimum .250-inch thick. The wet well shall have a nominal thickness of 1/2-inch. All seams created during tank construction are to be thermally welded and factory tested for leak tightness. Tank wall and bottom must withstand the pressure exerted by saturated soil loading at the maximum designed burial depth. All wet wells must function normally when exposed to 150 percent of the maximum external soil and hydrostatic pressure.

Fiberglass wet wells shall be custom molded fiberglass reinforced polyester resin. The tank wall and bottom must withstand the pressure exerted by saturated soil loading at maximum burial depth. All station components must function normally when exposed to 150 percent maximum external soil and hydrostatic pressure.

All wet wells shall have level transducers with float backup.

E. Anti-Flotation Device

Groundwater shall be rerouted or pumped to provide a firm, dry subgrade for the wet well and to guard against flotation or other damage resulting from general water or flooding.

A concrete anti-flotation collar, sized per the manufacturer's instructions, shall be required and shall be pre-cast to the grinder pump station or poured in place. Each grinder pump station with its pre-cast anti-flotation collar shall have a minimum of 3 lifting eyes for loading and unloading purposes.

If the concrete is poured in place, the unit shall be leveled, and filled with water to the bottom of the inlet to help prevent the unit from shifting while the concrete is being poured. The concrete must be manually vibrated to ensure there are no voids. If it is necessary to pour the concrete to a level higher than the inlet piping, an 8-inch sleeve is required over the inlet prior to the concrete being poured.

F. Backfill for Wet Well

Proper backfill is critical to the long-term reliability of the wet well. The preferred backfill shall be controlled density fill (CDF) meeting WSDOT/APWA *Standard Specification* 2-09.3(1)E. CDF is the desired method as it assures proper compaction, especially where tight clearances make it difficult to assure proper compaction with dry materials. CDF shall not be dropped more than 4-feet from the discharge to the bottom of the hole to avoid separation of the constituent materials.

A minimum 6-inches of naturally rounded aggregate, clean and free flowing, with particle size of not less than 1/8-inch or more than 3/4-inch shall be used as bedding material under the wet well.

Native backfill may be used if it meets Class I or Class II backfill material as defined in ASTM 2321. Class 1A and Class IB are recommended where frost heave is a concern. Class 1B shall be used where the native soil is sand or if a high, fluctuating water table is expected.

If native soil consists of clean, compactable soil, with less than 12 percent fines, free of rocks, roots and organic material, it may be an acceptable backfill. It is recommended that a geotechnical evaluation of the material be obtained before specifying backfill. Non-compactable clays and silts are not suitable backfill for this or any underground structure such as inlet or discharge lines.

Soil must be compacted in lifts not to exceed six inches to reach a minimum final density of 85 percent. The finish grade line shall be between 1 and 4 inches below the bottom of the lid and final grade shall slope away from the grinder pump station.

G. Grinder Pump and Assembly

The grinder pump shall be a custom designed, integral, vertical rotor, motor driven, solids handling pump of the progressing cavity type with a single mechanical seal. The rotor shall be through-hardened, highly polished, precipitation hardened stainless steel. Stainless steel plated rotors are not allowed. The stator shall be of an ethylene propylene synthetic elastomer. The material shall be suitable for use in wastewater environments. The pump shall be capable of delivering 15 GPM against a rated total dynamic head of 0 feet (0 psig) and 9 GPM against a rated total dynamic head of 138 feet (60 psig). The pump must also be capable of operating at negative total dynamic head without overloading the motor. Under no conditions shall in-line piping or valving be allowed to create a false apparent head.

The grinder shall be placed immediately below the pumping elements and shall be direct-driven by a single, one-piece motor shaft. The grinder impeller assembly shall be securely fastened to the pump motor shaft by means of a threaded connection attaching the grinder impeller to the motor shaft. Attachment by means of pins or keys will not be acceptable. The grinder will be of the rotating type with a stationary hardened and ground stainless steel shredding ring spaced in close annular alignment with the driven impeller assembly, which shall carry two hardened type 400 series stainless steel cutter bars. The grinder shall be positioned in such a way that solids are fed in an upward flow direction. The maximum flow rate through the cutting mechanism must not exceed 4-feet per second. The inlet shroud shall have a diameter of no less than 5-inches. The impeller mechanism must rotate at a nominal speed of no greater than 1800 rpm's. The grinder shall be capable of reducing all components in normal domestic sewage, including a reasonable amount of "foreign objects" to finely divided particles that will pass freely through the passages of the pump.

At a maximum, the motor shall be a 1 hp, 1725 rpm, 240 Volt 60 Hertz, 1 phase, capacitor start, ball bearing, air-cooled induction type with a low starting current not to exceed 30 amperes. Inherent protection against running overloads or locked rotor conditions for the pump motor shall be provided by the use of an automatic-reset, integral thermal overload protector incorporated into the motor.

The grinder pump core unit shall have two lifting hooks complete with nylon lift-out harness connected to its top housing to facilitate easy core removal when necessary. All

mechanical and electrical connections must provide easy disconnect capability for core unit removal and installation. A push-to-run feature will be provided for field troubleshooting. All motor control components shall be mounted on a readily replaceable bracket for ease of field service.

The pump, grinder, motor and control assembly shall be E/One complete system as manufactured by Environment One Corporation or City approved equal. City approved equals shall meet the requirements of a high head, low-pressure system as specified herein.

H. Control Panel

The electrical controls shall be furnished and prewired to operate the pump and motor assembly. A built-in alarm system shall be required on every system. All alarm systems shall be UL approved for use in wastewater systems. The alarm paned shall be located in a conspicuous location as per the National Electrical Code (NEC) and local codes.

The power and alarm circuits must be on separate, 15 amp; single pole circuit breakers. The alarm panel shall include both audio and visual alarm, push-to-run switches and high level (redundant) pump starting controls. The alarm sequence is to be as follows:

1. When liquid level in the sewage wet well rises above the alarm level, visual and audio alarms will be activated. The contacts on the alarm pressure switch will close. The redundant pump starting system will be energized.

2. The audio alarm may be silenced by means of the externally mounted, push-to-silence button.

3. Visual alarm remains illuminated until the sewage level in the wet well drops below the "off" setting of the alarm pressure switch.

4. The visual alarm shall be mounted to the control panel in such a manner as to maintain NEMA 4X rating. For duplex units, in addition to the above, two high-level indicator lights shall be mounted behind the access door.

I. Backflow Prevention Device

A backflow prevention device, in accordance with the provisions of WAC 246-290-490, is necessary to protect the domestic water system from contamination. The owner shall install a backflow prevention device into the water system on the property. The backflow prevention device shall be selected, installed and maintained to satisfy any governmental regulation and requirements and shall be in accordance with Department of Ecology standards.

The owner, at the owner's sole expense, shall have the backflow prevention device inspected annually by a contractor certified by the State of Washington for inspection of these devices. A report shall be provided to the City of Shelton immediately upon receipt by the owner. In the event that the City does not have a current annual inspection report on file, it shall have the right, but not the responsibility, to obtain one from a contractor of its choice. All costs or expenses, and a 20 percent administrative fee will be billed to the owner.

5.180 Interim Sewage Facilities – Urban Growth Area

In those areas located within the City of Shelton's Urban Growth Area where annexation or connection to a permanent public sewerage system is not feasible, an interim community on-site sewer system may be constructed to serve residential and light commercial locations, when approved by the City prior to design and construction. In certain cases, a value engineering study or approved equivalent may be required by the City prior to granting approval for an interim sewerage facility.

Maintenance and pumping of Interim Sewerage Facilities shall be the responsibility of the property owner(s).

5.190 Design Standards for Interim Community On-Site Sewer Systems

The design of any interim on-site sewer system shall conform to the criteria as set forth in the City of Shelton Comprehensive Plan and these *Standards.*

All collection lines, dry lines, pumping stations and all other sewer appurtenances and sizing shall be installed at the time of initial construction. The layout of the dry line main extension shall provide for the future continuation of the existing public sewer system as determined by the City. In

addition, the dry line main extension shall be installed within a plat or property prior to new roadway construction and extended to and through the side of the affected property fronting the main to the existing roadway and sewer main.

The interim community on-site sewer system shall be designed in such a way that each residence will discharge into their own on-site septic tank, which will then discharge by gravity into a community wet well. The community wet well will pump the effluent into a pressurized community drain field. Upon approval of the City of Shelton and Mason County, a community system may be designed utilizing an appropriately sized community solids tank and subsequent settling tanks before discharge into a community wet well. Tank design standards shall meet the applicable standards as set forth below for septic tanks.

Plan for the proposed on-site sewer system shall be prepared by a licensed professional engineer registered in the State of Washington and shall be submitted to the City for review and approval. The City will coordinate the review by the State and County Health Departments, whose approval is also required.

A. Pumping Chamber

The pumping chamber leading to the pressurized drain field shall be designed and constructed as set forth in Sections 5.150 and 5.160 for Lift Stations. The dry line installed for future connection to the public sewer system shall terminate in the pumping chamber. A valve shall be installed outside the wet well connected to the dry line for future use.

B. Grinder Pump

All private pumps on service lines shall be grinder pumps. Grinder pumps must meet all Uniform Plumbing Code requirements and shall connect to a gravity sewer lateral at the property or easement line.

C. Septic Tank

Each residence shall have its own septic tank. Only sanitary wastewater shall be discharged into the tank. Roof drains and other stormwater sources shall be strictly excluded. The tank shall be watertight, and shall be equipped with twin risers as specified, with the exception

that the 24-inch solids riser may be covered a maximum of 12 inches. It is the homeowner's responsibility to locate and uncover the solids riser when pumping of the septic tank is required. The 30-inch pump chamber riser may not be covered. It is the property owner's responsibility to pump the tanks.

The effluent shall be discharged by gravity to the community pumping chamber. In the event that topography prohibits a specific lot from achieving a gravity discharge, an approved STEP system shall be installed.

D. Pipe

1. Pressurized Drain Field

All pipe used in construction of the pressurized drain field shall be as specified in these *Standards* and shall be specified on the approved plans.

2. Gravity Lines

All pipe installed from the septic tanks to the pumping chamber, and all dry lines installed for future extension shall meet the criteria set forth in Section 5.020 of the *Standards* for gravity sewer lines.

3. Side Sewer or Lateral

The gravity side sewer or lateral between the building and the tank shall be designed and installed in accordance with the Uniform Plumbing Code. Maintenance of this line is the property owner's responsibility.

4. Connection

When the dry line is activated by the City, each property owner shall be required to connect to the public sewer system and decommission the septic tank on their property per the applicable *Standards*. This requirement shall be placed on the property title prior to the initial sale of the property.

5.200 Sanitary Sewer Main Construction (General Notes)

In addition to the General Construction Notes in Chapter One, the Engineer shall include the following notes on any plans dealing with the construction of alterations, extensions or connections to the sanitary sewer system.

A. The City shall be notified at least 48 hours in advance of a tap connection to an existing sewer main. The City's inspector shall be present at the time of the tap.

B. All sewer mains shall be field staked for grades and alignment by a registered land surveyor or licensed engineer.

C. Pre-cast manholes shall meet the requirements of ASTM C478. Manholes shall be Type 1-48" manhole unless otherwise specified on the plans. Joints shall be rubber gasket conforming to ASTM C443 and shall be grouted from the inside. Lift holes shall be grouted from the outside and inside of the manhole with an approved grout, installed per the manufacturer's recommendations.

D. Side sewer services shall be PVC, ASTM D 3034 SDR 35 with flexible gasket joints. Side sewer connections shall be made by a tap to an existing main or a wye branch from a new main connected above the spring-line of the pipe. All services shall include Tracer Wire.

E. All lines shall be high velocity cleaned, vacuumed and pressure tested in conformance with these *Standards.* Hydrant flushing of lines is not an acceptable cleaning method. Testing of the sanitary sewer main shall include TVing of the main by the contractor. Immediately prior to TVing enough water shall be run down the line so it comes out the lower manhole. The video tape shall show the distance from the manhole that the camera enters to all connections and to the next manhole. Camera work must be completed utilizing the latest version of Cues' GraniteNet Software, or as approved by the City. A copy of the video tape shall be submitted to the City. Acceptance of the line will be made after the tape has been reviewed and approved by the City.

F. The contractor shall be responsible for cleanup of any debris in new or existing manholes and mains associated with the project after the new lines are cleaned. A vacuum test of all manholes in accordance with these *Standards* is also required. Testing shall take place after all underground

utilities are installed and compaction of the roadway subgrade is completed.

G. All discharges from the sewerage collection system and spills of any type that may affect human health or the environment must be immediately reported by the contractor to the City.

H. Pea gravel shall be allowed for pipe bedding up to the spring line of pipe.

LIFT STATION INSPECTION CHECKLIST

Inspectors: _____ Date: _____
_____
_____

Name of Lift Station: _____
Location:_____
Address: _____
Assigned Lift Station Number: _____

AMP reading recorded at startup: #1 _____ #2 _____ #3 _____
Comments:_____
_____

Motor Data: HP _____ RPM _____ Phase _____ Cycle _____ Volt _____
Comments:_____
_____

Pump Design in gallons per minute: #1 _____ #2 _____ #3 _____
1, #2 and #3 _____ TDH _____
Comments:_____
_____

Pump performance during startup in gallons per minute: #1 _____#2 _____
#3 _____ #1, #2 and 3 _____ TDH _____
Comments:
_____
_____

Hour Meter Readings: #1 _____ #2 _____ #3 _____
Comments:_____
_____

Pump #1 Running Amps: L1 _____ L2 _____ L3 _____
Pump #2 Running Amps: L1 _____ L2 _____ L3 _____
Pump #3 Running Amps: L1 _____ L2 _____ L3 _____

Note: Check that motors are not exceeding their nameplate amperage multiplied by the motor service factor, (i.e., with FLA = 10 and SF = 1.15, the amperage recorded should not exceed 11.5 amps). The motor will operate satisfactorily under the following conditions of voltage and frequency variation, but not necessarily in accordance with the standards established for operation under rated conditions.

- The voltage variation may not exceed 10% above or below rating specified on the motor nameplate.
- The frequency variation may not exceed 5% above or below motor nameplate.

- The sum of the voltage and frequency variations may not exceed 10% above or below motor nameplate rating, provided the frequency variation does not exceed 5%.

Motor Nameplate Amps: #1 _____ #2 _____ #3 _____

Motor Nameplate SF Amps: #1 _____ #2 _____ #3 _____

Voltage Taken @ Terminal Block: L1 _____ L2 _____ L3 _____

	OPERATION OKAY Yes	No
Unusual Noise #1 Pump or Motor:	_____	_____
Comments: _____		
Unusual Noise #2 Pump or Motor:	_____	_____
Comments: _____		
Unusual Noise #3 Pump or Motor:	_____	_____
Comments: _____		
Sealed Bearings:	_____	_____
Comments: _____		
Pump Alternator Operation:	_____	_____
Comments: _____		
Control Panel components:		
Pump Run Lights:	_____	_____
Hour Meters:	_____	_____
H.O.A.:	_____	_____
Limit Switches:	_____	_____
Comments: _____		

	OPERATION OKAY Yes	No
Alarm Functions:		
Power Fail:	_____	_____
High Wet Well:	_____	_____
Low Wet Well:	_____	_____

	OPERATION OKAY Yes	No
Pump #1 Fail:	_____	_____
Pump #2 Fail:	_____	_____
Dry Well Flood:	_____	_____
Smoke and Fire:	_____	_____
Intrusion:	_____	_____
Pump #1 Run:	_____	_____
Pump #2 Run:	_____	_____

Comments: _____
_____

Actual Wet Well Pump down and fill levels:

High Water: _____
Fill Level: _____
Pump Down: _____
Low Level: _____

Wet Well blower Operation:	_____	_____
Wet Well Ladder:	_____	_____
Spare Parts Furnished:	_____	_____
O & M Manuals (5 copies):	_____	_____

Comments: _____

Telemetry Function at Maintenance Shop:

Power Fail:	_____	_____
High Wet Well:	_____	_____
Low Wet Well:	_____	_____
Pump #1 Fail:	_____	_____
Pump #2 Fail:	_____	_____
Dry Well Flood:	_____	_____
Smoke and Fire:	_____	_____
Intrusion:	_____	_____
Pump #1 Run:	_____	_____
Pump #2 Run:	_____	_____

Comments: _____
_____
_____

	OPERATION OKAY Yes	No
Locks:		
Wet Well:	_____	_____
Electrical:	_____	_____
Fenced Area:	_____	_____
Heater Operation:	_____	_____
Comments: _____		
Disconnect Operation:	_____	_____
Comments: _____		
Auxiliary Generator:		
Plug-in:	_____	_____
Plug-in face plate (red if 480\277/green if 208\120):	_____	_____
Transfer Switch:	_____	_____
Operation:	_____	_____
Comments: _____		
Isolation Valve Operation:		
Dry Well:	_____	_____
Outside:	_____	_____
Comments: _____		
Check Valve Operation:	_____	_____
Comments: _____		
Corrosion Resistant (epoxy coating):		
Dry Well:	_____	_____
Wet Well:	_____	_____
Force Main Outfall:	_____	_____
Down Stream Manhole:	_____	_____
Comments: _____		
Emergency Bypass:		
Components:	_____	_____
Operation:	_____	_____
Comments: _____		
All nuts and Bolts in Place:		
Dry Well:	_____	_____
Wet Well:	_____	_____
Comments: _____		
All Mechanical Components Installed:		
Dry Well:	_____	_____
Wet Well:	_____	_____
Comments: _____		

	OPERATION OKAY Yes	No
Wet Well Piping for Proper Size:	_____	_____
Heavy Ribbed Neoprene Mat Dry Well Floor:	_____	_____
Control Panel Enclosures with Appropriate UL Labels:	_____	_____
Comments: _____		
Wiring Schematics for Correlation:	_____	_____
Comments: _____		
_____		
_____		
Wire Gauge (usually 18):	_____	_____
Comments: _____		
_____		
Electrical Conduit for Defects:	_____	_____
Comments: _____		
_____		
_____		
Terminal Block:	_____	_____
Comments: _____		
_____		
_____		
Proper Sized Circuit Breakers & Fuses:	_____	_____
Comments: _____		
_____		
_____		
Electrical Control Devices Sized for Motor Horse Power:	_____	_____
Comments: _____		
_____		
_____		
Overload Devices, Trip Test & Manual Reset:	_____	_____
Comments: _____		
_____		
_____		
All Wires Connected:	_____	_____
Comments: _____		
_____		
_____		
Air Release Valve on Discharge:	_____	_____
Comments: _____		

	OPERATION OKAY Yes	No
Warranty: Comments: _____	_____	_____
Debris in Wet Well: Comments: _____ _____ _____	_____	_____
Infiltration Points: Comments: _____ _____ _____	_____	_____
Cleanliness: Comments: _____ _____ _____	_____	_____
Proper Pump Rotation (shaft moves in direction of arrows): Comments: _____	_____	_____
PSI Gauges Prime Chamber: Comments: _____	_____	_____

	OPERATION OKAY Yes	No
Operation of Latch: Comments: _____	_____	_____
Operation of Entrance Cover: Comments: _____	_____	_____
Operation of Cover Safety Latch: Comments: _____	_____	_____
Hose bib and DCVA: Comments: _____	_____	_____

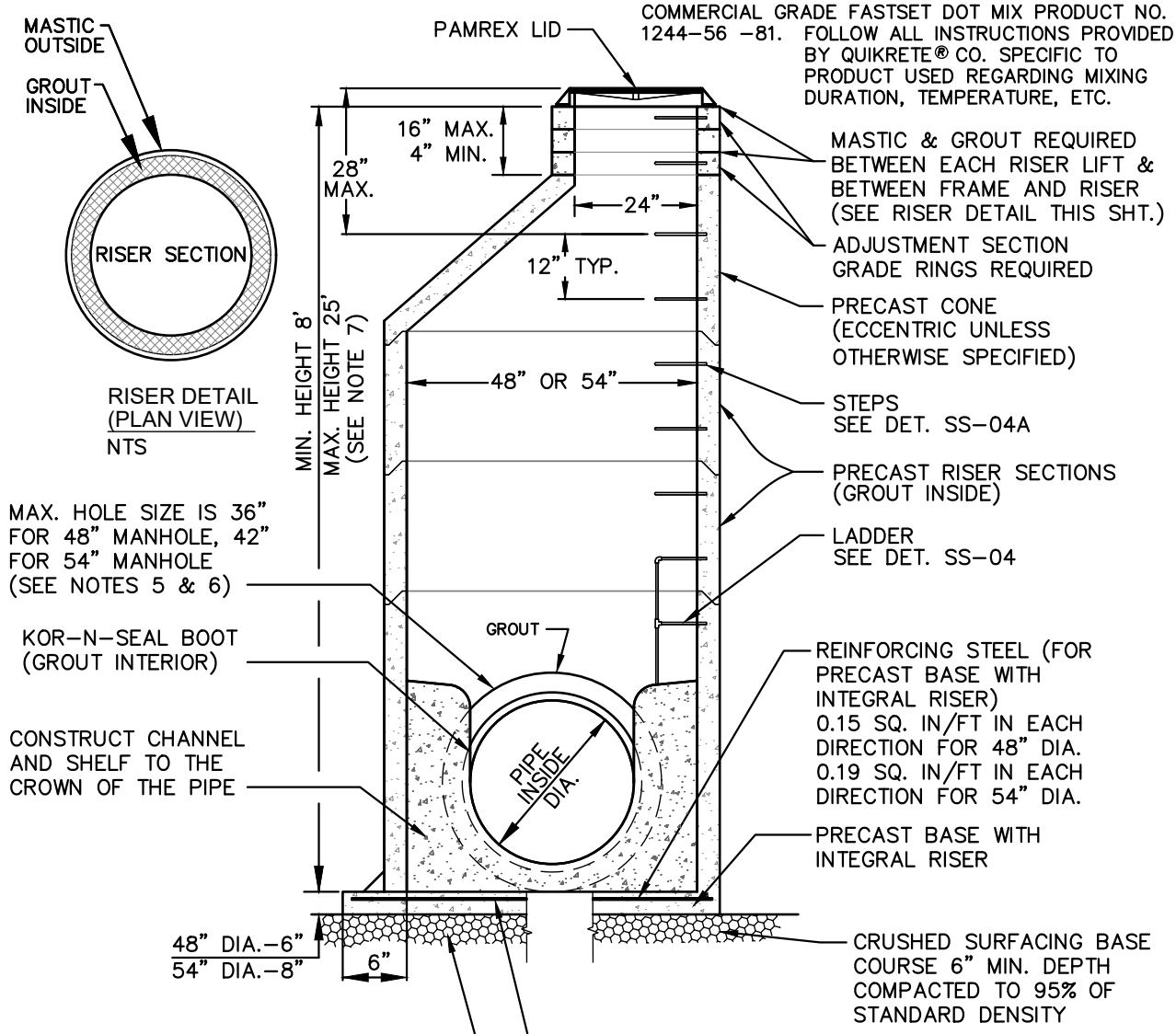
LIST OF DRAWINGS
CHAPTER 5 SEWER

TABLE OF CONTENTS

SANITARY SEWER DETAILS

NOTES:

1. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M–199 (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN STANDARD SPECIFICATIONS.
2. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON–REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
3. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
4. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PS AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL THICKNESS. MAXIMUM HOLE SIZE IS 36" FOR 48" MANHOLE, 42" FOR 54" MANHOLE. MINIMUM DISTANCE BETWEEN HOLES IS 8" (MEASURED ON THE INSIDE OF THE MANHOLE).
6. MANHOLE SIZE DEPENDS ON SIZES, LOCATION AND NUMBERS OF HOLES FOR PIPES. MANHOLE DESIGN AND SIZE SHALL BE APPROVED AND WARRANTED BY THE MANHOLE SUPPLIER.
7. FOR HEIGHTS OVER 25' MANHOLE BASE SLAB DESIGN SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
8. GROUT ALL PICK HOLES INSIDE & OUTSIDE.
9. FOR PATCHING VOIDS AROUND PIPES, PICKING EYE HOLES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON–SHRINK PRECISION GROUT–PRODUCT NO. 1585–00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244–56 –81. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE® CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.



"Building A Stronger Community TOGETHER"

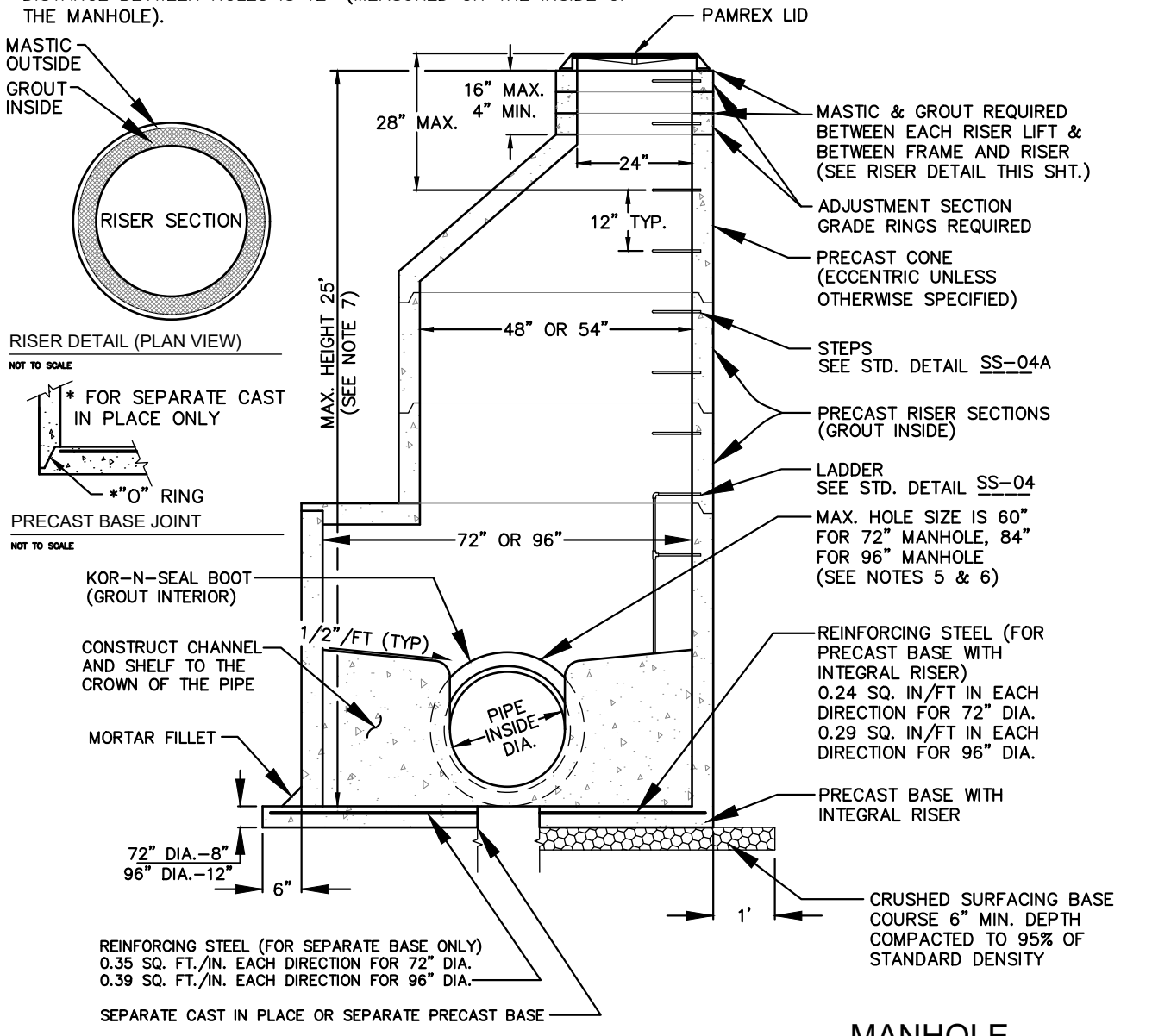
MAHOLE TYPE 1 48" & 54"

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SS-01

NOTES:

1. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M–199 (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN STANDARD SPECIFICATIONS.
2. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON–REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
3. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
4. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PS AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL THICKNESS. MAXIMUM HOLE SIZE IS 60" FOR 72" MANHOLE, 84" FOR 96" MANHOLE. MINIMUM DISTANCE BETWEEN HOLES IS 12" (MEASURED ON THE INSIDE OF THE MANHOLE).
6. MANHOLE SIZE DEPENDS ON SIZES, LOCATION AND NUMBERS OF HOLES FOR PIPES. MANHOLE DESIGN AND SIZE SHALL BE APPROVED AND WARRANTED BY THE MANHOLE SUPPLIER.
7. FOR HEIGHTS OVER 25' MANHOLE BASE SLAB DESIGN SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
8. GROUT ALL PICK HOLES INSIDE AND OUTSIDE.
9. FOR PATCHING VOIDS AROUND PIPES, PICKING EYE HOLES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON–SHRINK PRECISION GROUT–PRODUCT NO. 1585–00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244–56 –81.
10. MORTAR MUST BE MIXED BY A MECHANICAL DEVICE, SUCH AS DRILL & PADDLE MIXER.
11. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE® CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.



"Building A Stronger Community TOGETHER"

MANHOLE TYPE 2 72" & 96"

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

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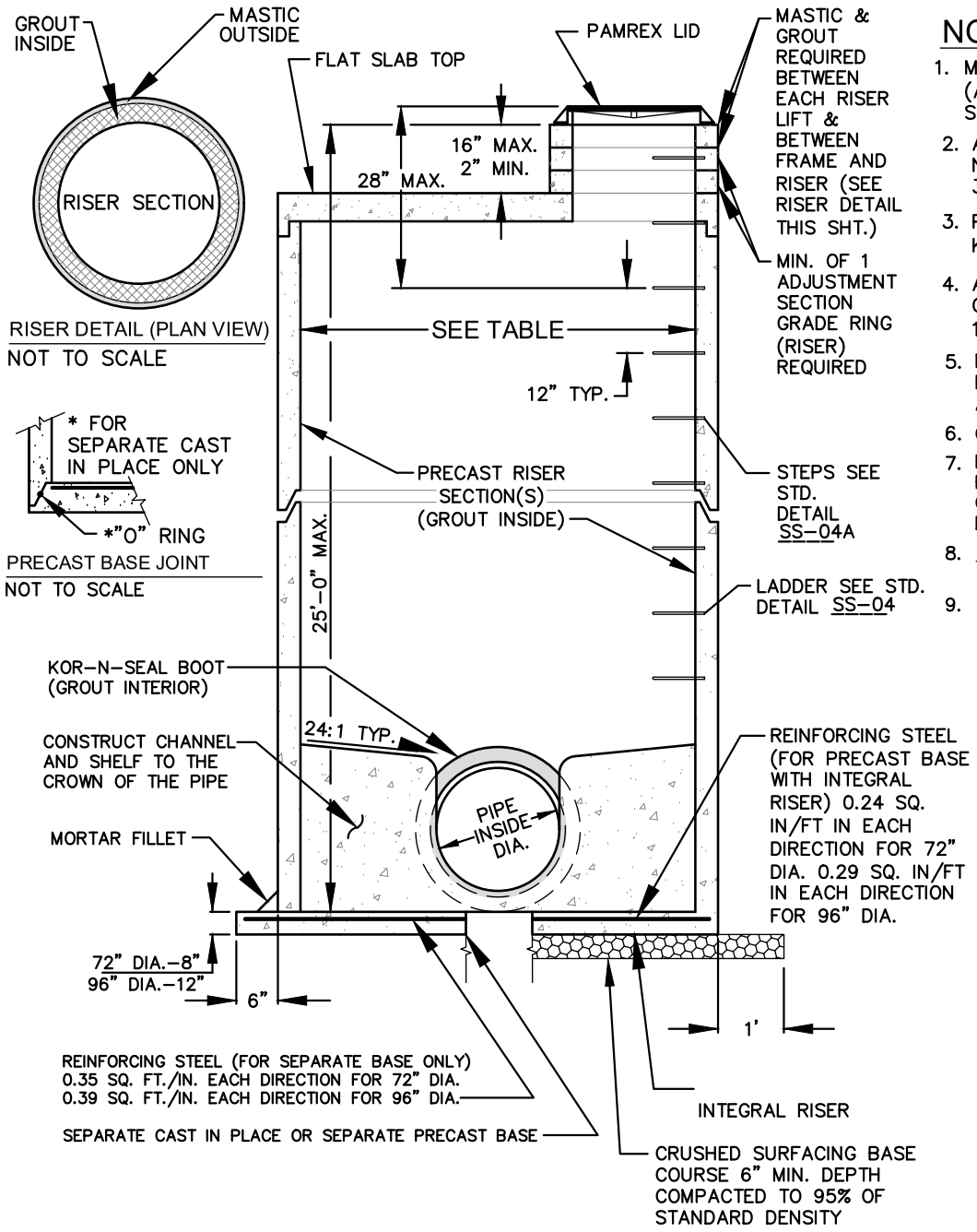
1/2019	GS	NTS	SS-02



NOTES:

1. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN STANDARD SPECIFICATIONS.
2. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
3. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
4. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PS AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.
5. MANHOLE SIZE DEPENDS ON SIZES, LOCATION AND NUMBERS OF HOLES FOR PIPES. MANHOLE DESIGN AND SIZE SHALL BE APPROVED AND WARRANTED BY THE MANHOLE SUPPLIER.
6. GROUT ALL PICK HOLES INSIDE AND OUTSIDE.
7. FOR PATCHING VOIDS AROUND PIPES, PICKING EYE HOLES, BETWEEN SECTIONS & RISERS, AND FRAMES, USE: QUIKRETE® NON-SHRINK PRECISION GROUT-PRODUCT NO. 1585-00 OR QUIKCRETE® COMMERCIAL GRADE FASTSET DOT MIX PRODUCT NO. 1244-56 -81.
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9. FOLLOW ALL INSTRUCTIONS PROVIDED BY QUIKRETE ®CO. SPECIFIC TO PRODUCT USED REGARDING MIXING DURATION, TEMPERATURE, ETC.

MANHOLE DIMENSION TABLE

DIAM.	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	42"	12"
144"	12"	12"	108"	12"

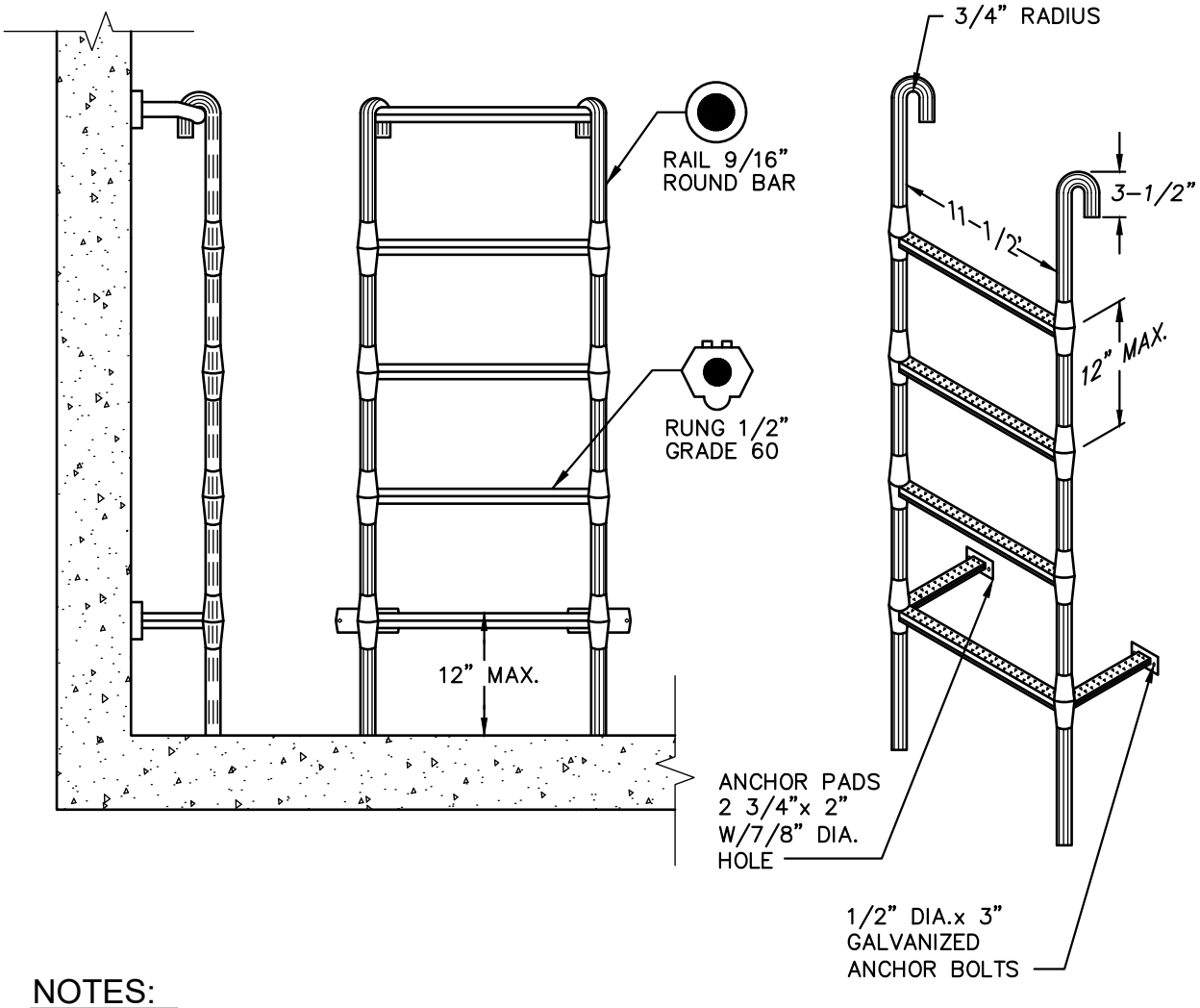
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

MANHOLE TYPE 3

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SS-03



NOTES:

1. STEPS SHALL BE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC CONFORMING TO:
   - (A) ASTM C 478 AND AASHTO M-199, MINIMUM HORIZONTAL LOAD SHALL BE 1500 LBS.
   - (B) ASTM A615 GRADE 60 (DEFORMED REINFORCING STEEL BAR).
   - (C) POLYPROPYLENE CONFORMS TO D-4101.
2. MANHOLE STEPS SHALL HAVE MOLDED SAFETY HAND GRIP. RED REFLECTORS ARE PREFERRED.
3. ALL FABRICATION DIMENSIONS INDICATED ARE MINIMUM.
4. THE ENTIRE POLYPROPYLENE PLASTIC MATERIAL SURROUNDING THE REINFORCING STEEL BAR SHALL BE CAST MONOLITHICALLY. MINIMUM COVER SHALL BE 3/16-INCH.
5. STEPS SHALL BE SPACED AT A MAXIMUM OF 12-INCHES.
6. STEPS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED MANUFACTURERS RECOMMENDED PROCEDURE.

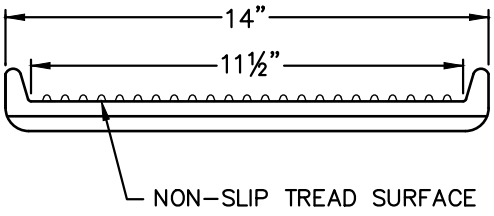
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

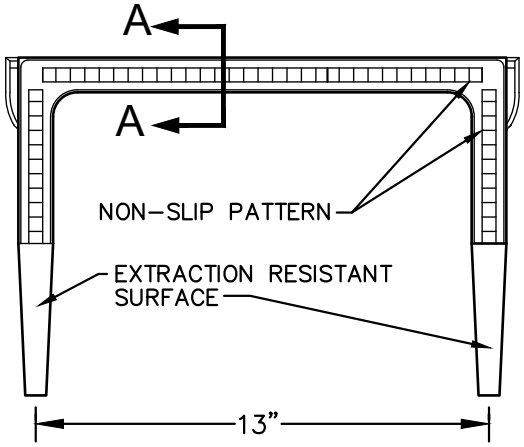
POLYPROLENE LADDER

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

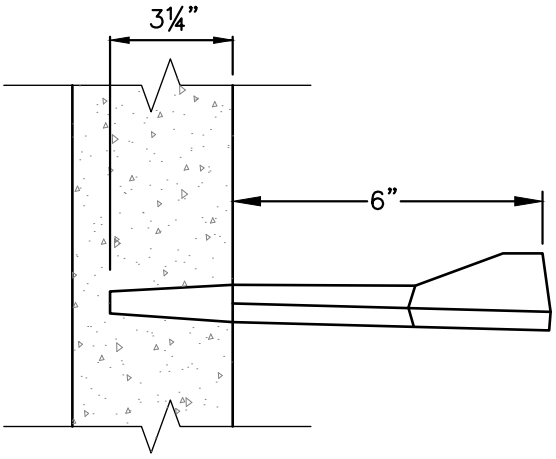
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SS-04



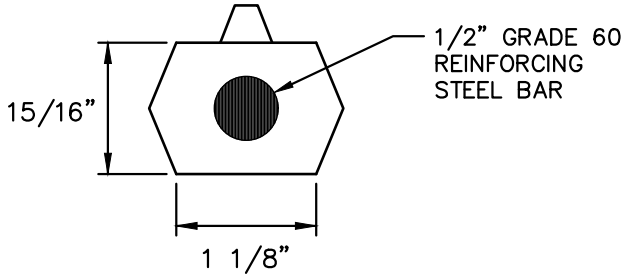
ELEVATION



PLAN



SIDE ELEVATION



SECTION A-A

NOTES:

1. STEPS SHALL BE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC CONFORMING TO:

   (A) ASTM D 478 AND AASHTO M–199, EXCEPT THAT THE MINIMUM HORIZONTAL PULLOUT LOAD SHALL BE 1500 LBS.

   (B) ASTM A 615 GRADE 60 (DEFORMED REINFORCING STEEL BAR).

2. ONLY STEPS APPROVED BY THE ENGINEER SHALL BE USED..
3. ALL FABRICATION DIMENSIONS INDICATED ARE MINIMUM.
4. THE MINIMUM TOTAL CROSS–SECTIONAL AREA OF THE EXPOSED PORTION OF THE STEEL, INCLUDING THE 1/2–INCH DEFORMED REINFORCING STEEL BAR, AND EXCLUDING THE NON–SLIP TREAD SURFACE, SHALL BE ONE SQUARE INCH.
5. THE ENTIRE POLYPROPYLENE PLASTIC MATERIAL SURROUNDING THE REINFORCING STEEL BAR SHALL BE CAST MONOLITHICALLY. MINIMUM COVER SHALL BE 3/16–INCH.
6. THE FOLLOWING DIMENSIONS SHALL APPLY UNLESS OTHERWISE NOTED ON THE DRAWINGS OR STANDARD PLANS FOR SPECIFIC STRUCTURES:
   D = 6" ±1/4", E = 1/4" ±1/4"
7. STEP SHALL BE SPACED AT A MAXIMUM OF 12–INCHES.
8. STEPS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED MANUFACTURER'S RECOMMENDED PROCEDURE.

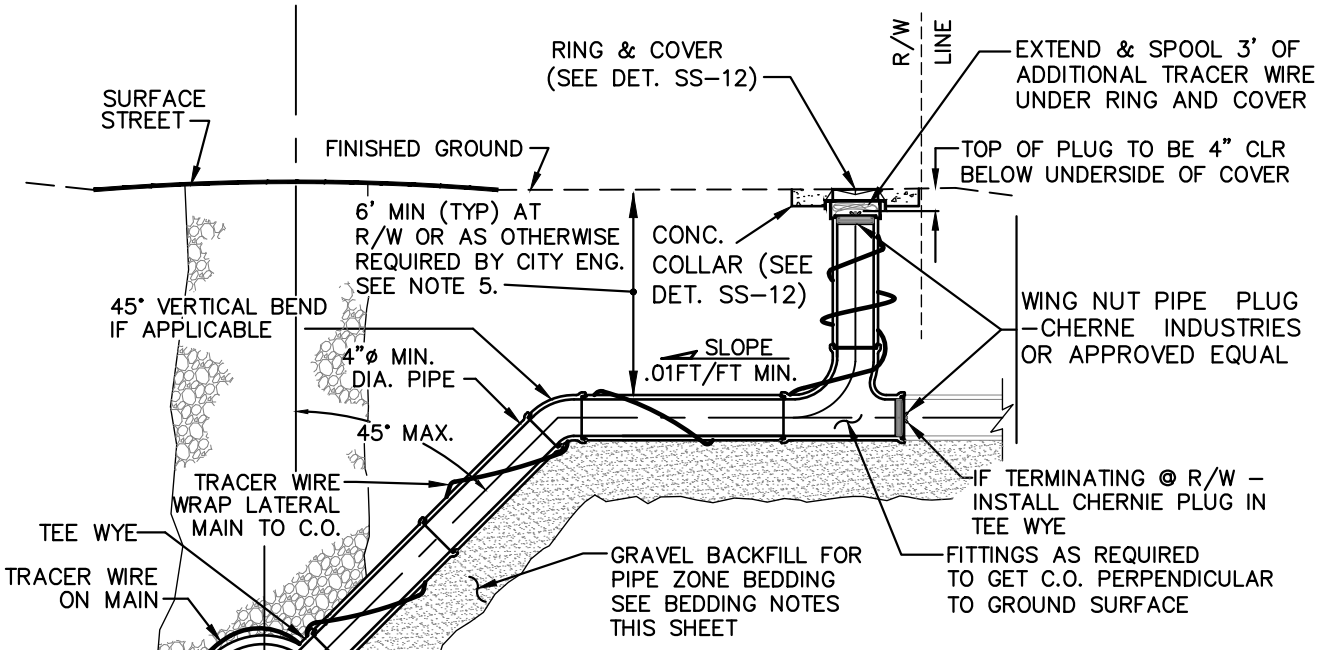
CITY of SHELTON WASHINGTON

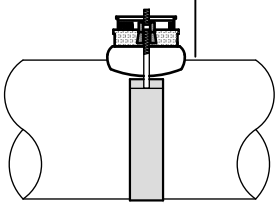
"Building A Stronger Community TOGETHER"

ALTERNATE POLYPROPYLENE PLASTIC STEP

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SS-04A

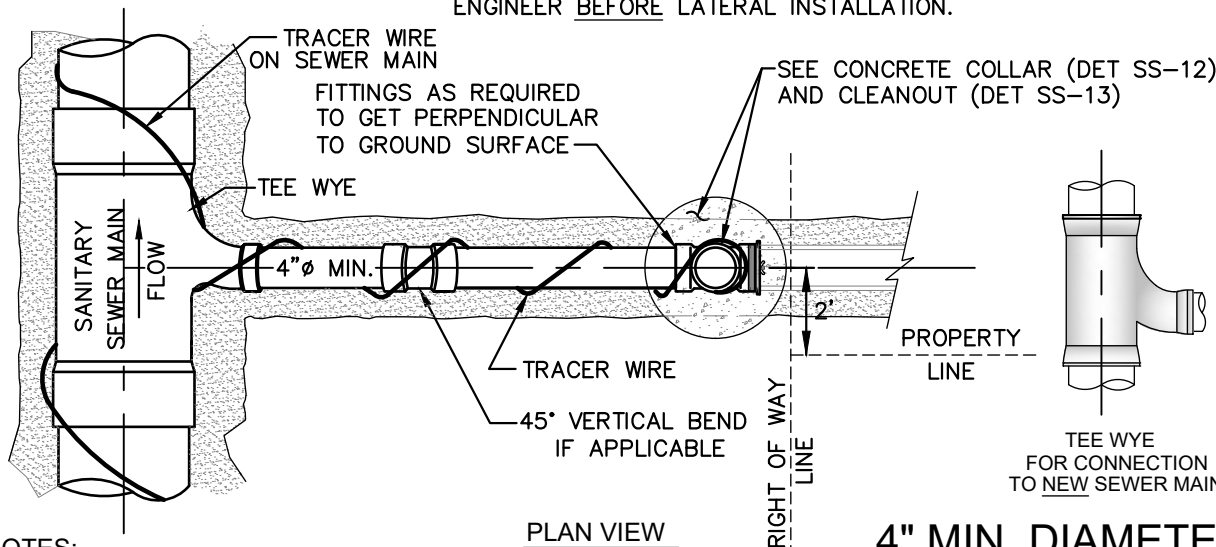




TYPE "CB" SEWER SADDLE FOR CONNECTION TO EXISTING SEWER MAIN
(SEE C.O. SHELTON STD. DETAIL SS-14)

BEDDING NOTES:

1. GRAVEL BACKFILL FOR PIPE ZONE BEDDING SHALL CONFORM WITH WSDOT STD. SPEC. 9-03.12(3). PEA GRAVEL ALLOWED TO 50% OF THE O.D. (SPRING LINE)
2. SEE C.O. SHELTON STD. DETAILS T-18 AND T-19 FOR TRENCH RESTORATION ABOVE THE PIPE ZONE BEDDING
3. BEDDING AND GRADE SHALL BE ESTABLISHED PRIOR TO PIPE BEING PLACED IN TRENCH.
4. IF THE LATERALS STOPS AT THE EDGE OF RIGHT OF WAY, TERMINATE THE LINE WITH A WINGNUT PIPE PLUG/CHERNE INDUSTRIES OR APPROVED EQUAL IN TEE WYE.
5. IF SEWER MAIN ELEVATION DOES NOT ALLOW 6' MIN. DEPTH OF LATERAL AT R/W LINE, INSTALL LATERAL AS DEEP AS POSSIBLE WHILE MAINTAINING MIN. SLOPE. CONFIRM ELEVS. W/ PROJECT ENGINEER BEFORE LATERAL INSTALLATION.



PLAN VIEW
NTS

TEE WYE FOR CONNECTION TO NEW SEWER MAIN

NOTES:

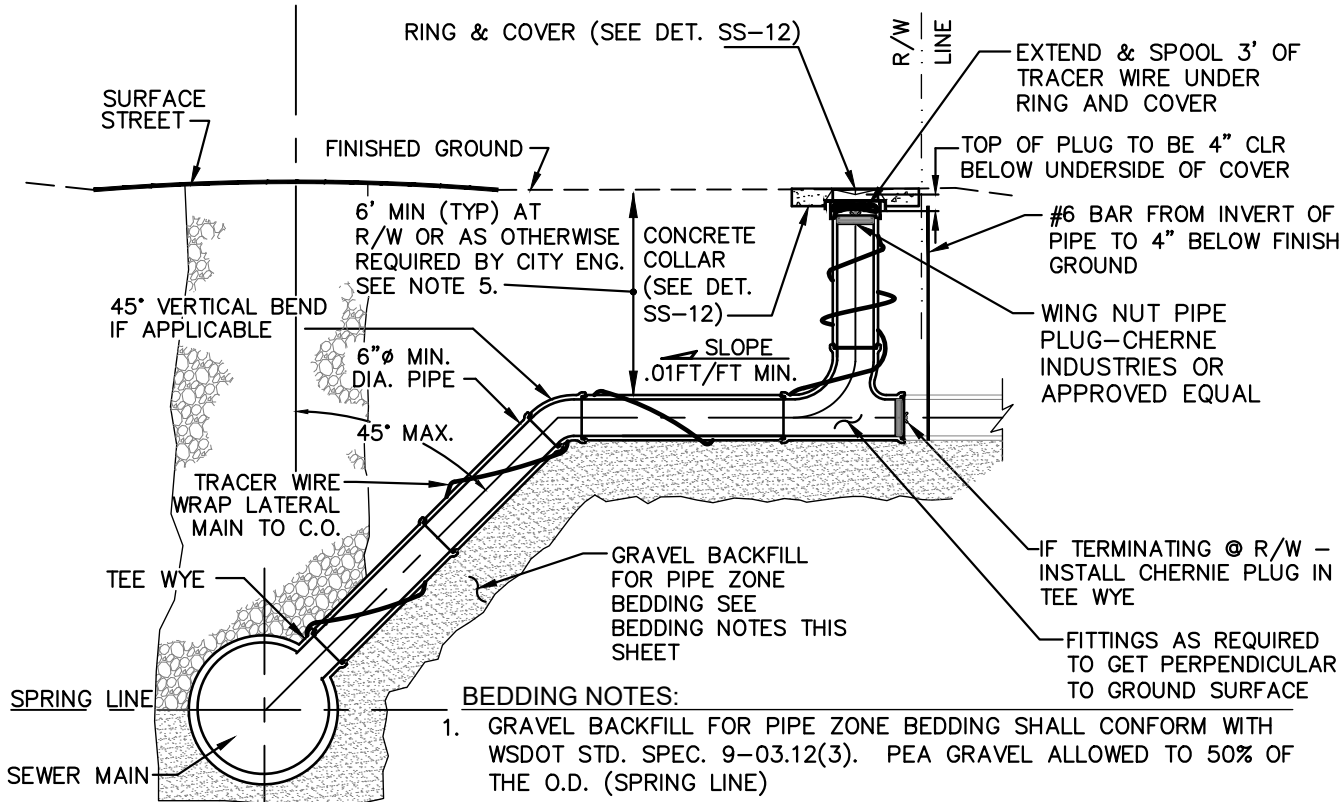
1. NO GLUED FITTINGS ALLOWED.
2. PIPE SHALL BE PVC SDR 3035 PIPE & GASKET.
3. SEE TYPICAL CLEANOUT & BACKWATER VALVE INSTALLATION DETAIL SS-07.

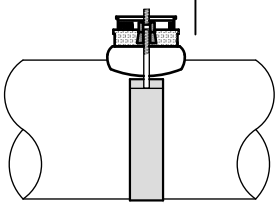
"Building A Stronger Community TOGETHER"

4" MIN. DIAMETER SINGLE SANITARY SEWER LATERAL SERVICE

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SS-05



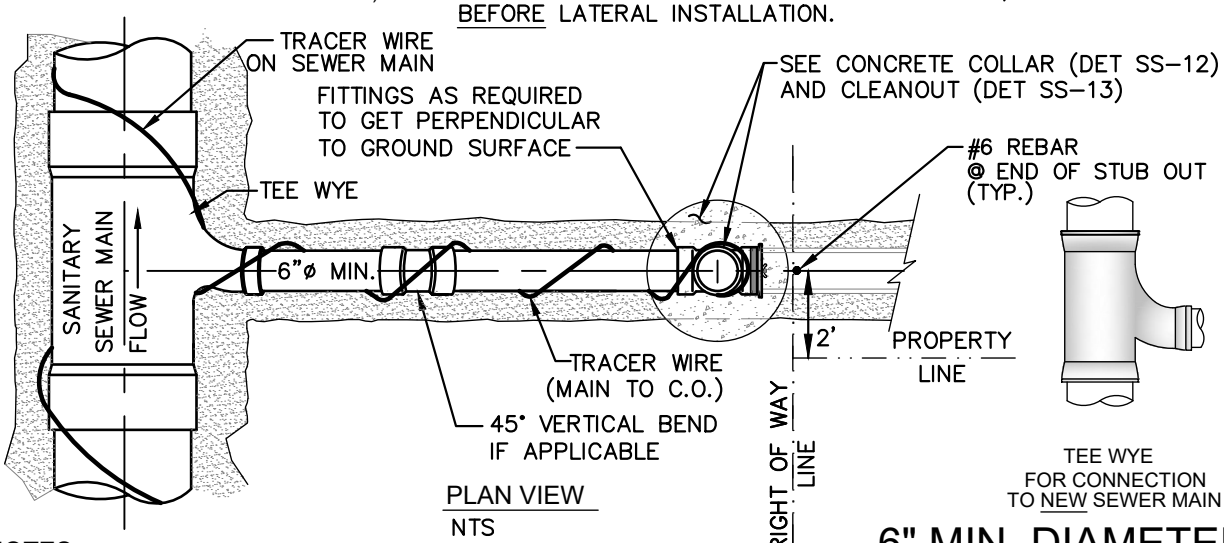


TYPE "CB" SEWER SADDLE FOR CONNECTION TO EXISTING SEWER MAIN

(SEE C.O. SHELTON STD. DETAIL SS-14)

BEDDING NOTES:

1. GRAVEL BACKFILL FOR PIPE ZONE BEDDING SHALL CONFORM WITH WSDOT STD. SPEC. 9-03.12(3). PEA GRAVEL ALLOWED TO 50% OF THE O.D. (SPRING LINE)
2. SEE C.O. SHELTON STD. DETAILS T-18 & T-19 FOR TRENCH RESTORATION ABOVE THE PIPE ZONE BEDDING
3. BEDDING AND GRADE SHALL BE ESTABLISHED PRIOR TO PIPE BEING PLACED IN TRENCH.
4. IF THE LATERALS STOPS AT THE EDGE OF RIGHT OF WAY, TERMINATE THE LINE WITH A WING NUT PIPE PLUG/CHERNE INDUSTRIES OR APPROVED EQUAL IN TEE WYE.
5. IF SEWER MAIN ELEVATION DOES NOT ALLOW 6' MIN. DEPTH OF LATERAL AT R/W LINE, INSTALL LATERAL AS DEEP AS POSSIBLE WHILE MAINTAINING MIN. SLOPE. CONFIRM ELEVS. W/ PROJECT ENGINEER BEFORE LATERAL INSTALLATION.



PLAN VIEW

NTS

TEE WYE FOR CONNECTION TO NEW SEWER MAIN

NOTES:

1. NO GLUED FITTINGS ALLOWED.
2. PIPE SHALL BE PVC SDR 3035 PIPE & GASKET.
3. SEE TYPICAL CLEANOUT & BACKWATER VALVE INSTALLATION DETAIL SS-07.

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6" MIN. DIAMETER SINGLE SANITARY SEWER LATERAL SERVICE

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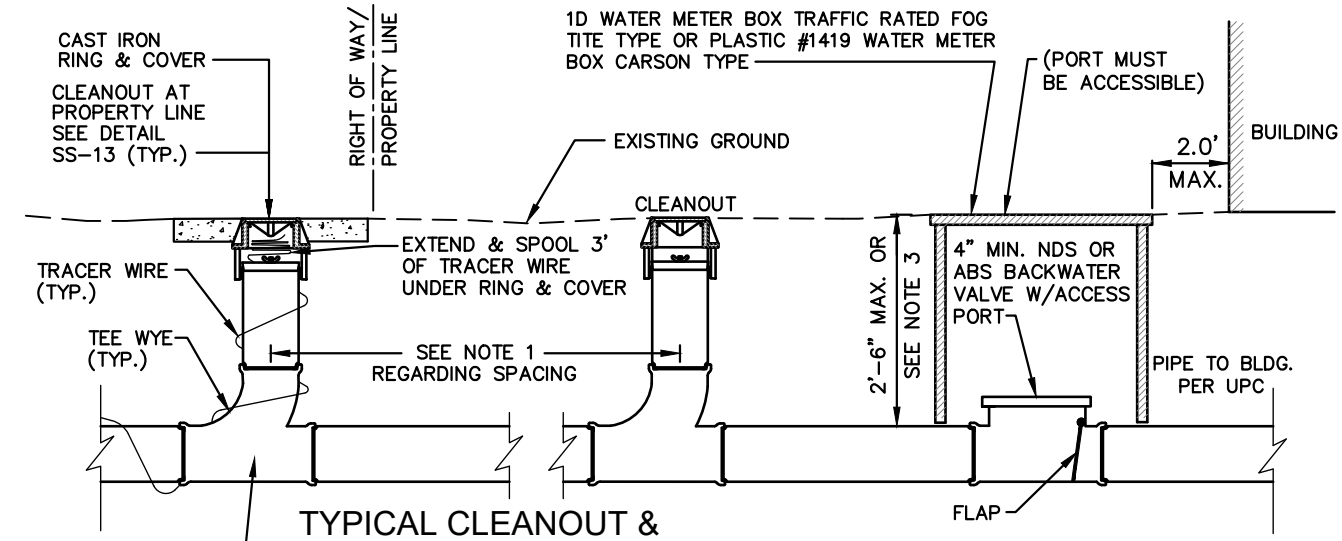
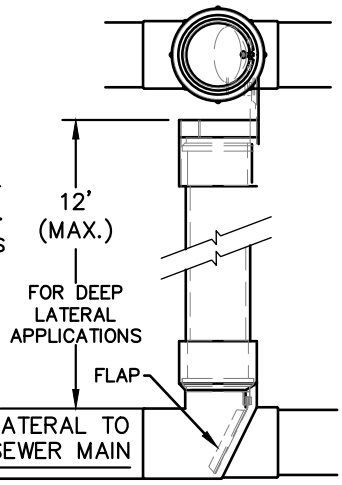


TYPICAL CLEANOUT & BACKWATER VALVE INSTALLATION

NOT TO SCALE

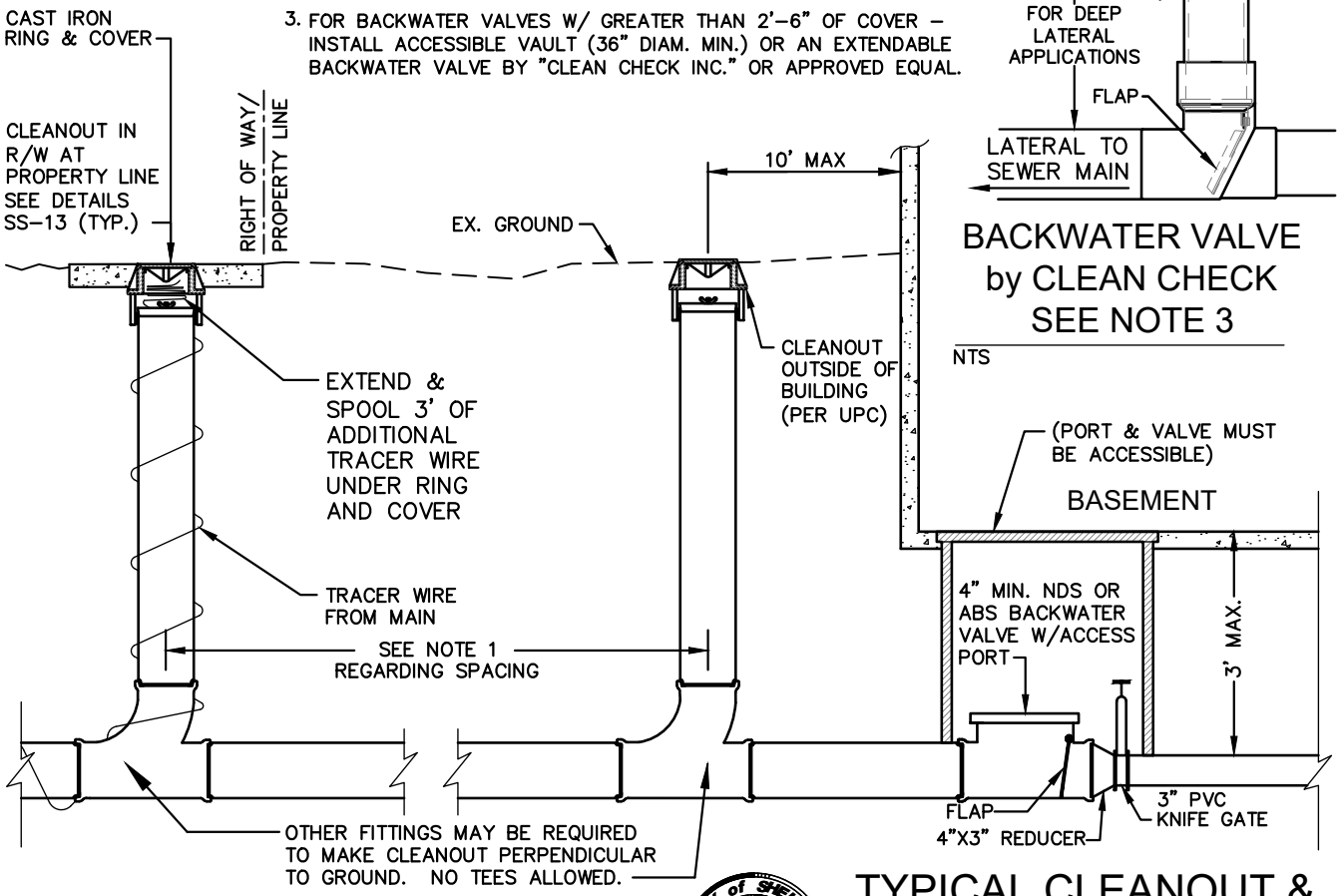
NOTES

1. HORIZONTAL BENDS SHALL BE 45° MAXIMUM. IF THE HORIZONTAL ALIGNMENT EXCEEDS 135° IN BENDS ON A SERVICE CONNECTION THEN A CLEANOUT IS REQUIRED AT NEXT BEND. A CLEANOUT SHALL BE PROVIDED FOR EACH TOTAL CHANGE OF 90° OF GRADE OR ALIGNMENT AND IN NO CASE SHALL THE SPACING OF CLEANOUTS EXCEED 100 FT.
2. BACKWATER VALVES REQUIRED ON ALL SERVICE CONNECTIONS, UNLESS OTHERWISE APPROVED BY THE CITY.
3. FOR BACKWATER VALVES W/ GREATER THAN 2'-6" OF COVER – INSTALL ACCESSIBLE VAULT (36" DIAM. MIN.) OR AN EXTENDABLE BACKWATER VALVE BY "CLEAN CHECK INC." OR APPROVED EQUAL.



BACKWATER VALVE by CLEAN CHECK SEE NOTE 3

NTS



TYPICAL BASEMENT INSTALLATION

NOT TO SCALE

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TYPICAL CLEANOUT & BACKWATER VALVE

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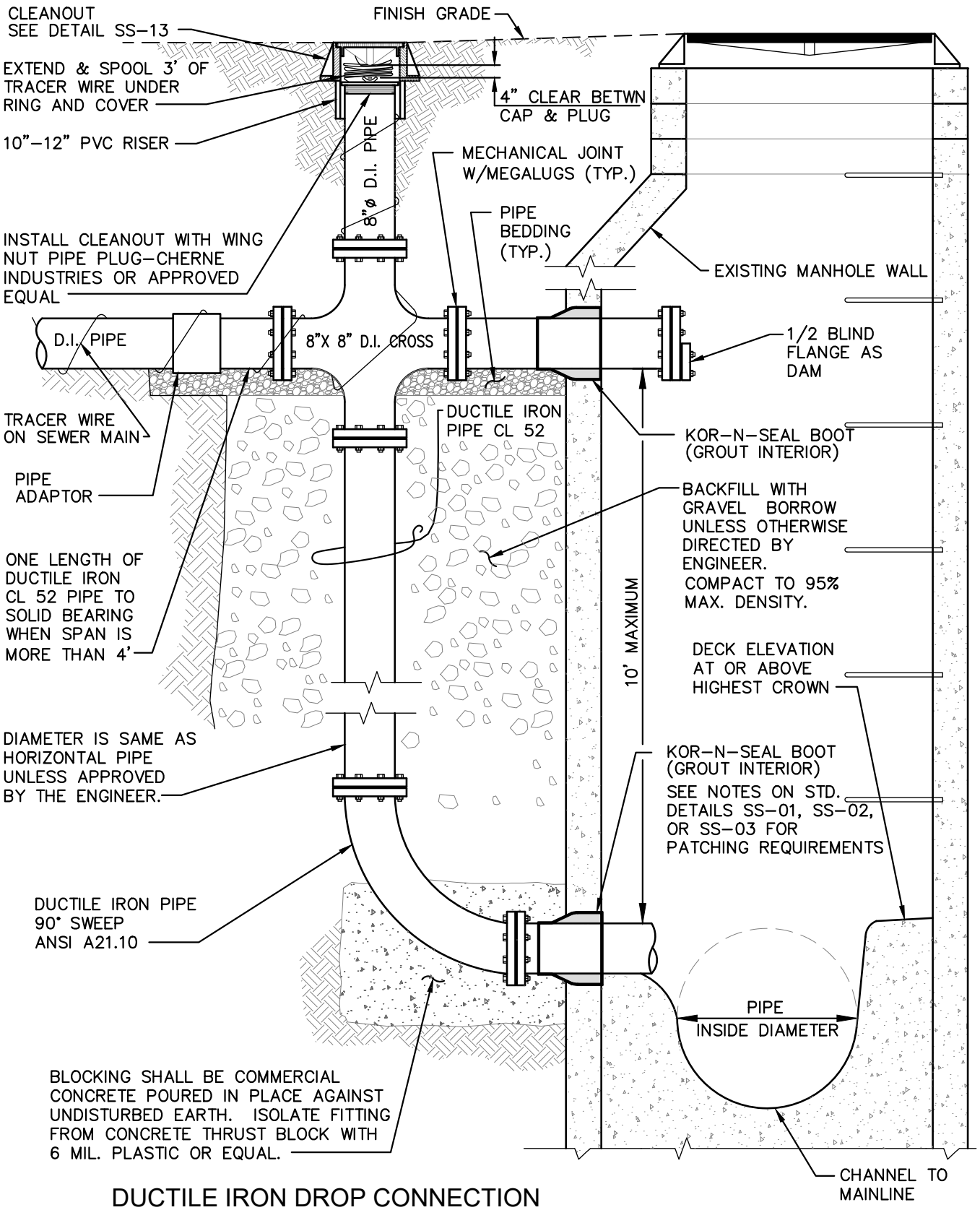
1/2019	GS	NTS	SS-07



DUCTILE IRON DROP CONNECTION

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OUTSIDE DROP MANHOLE CONNECTION

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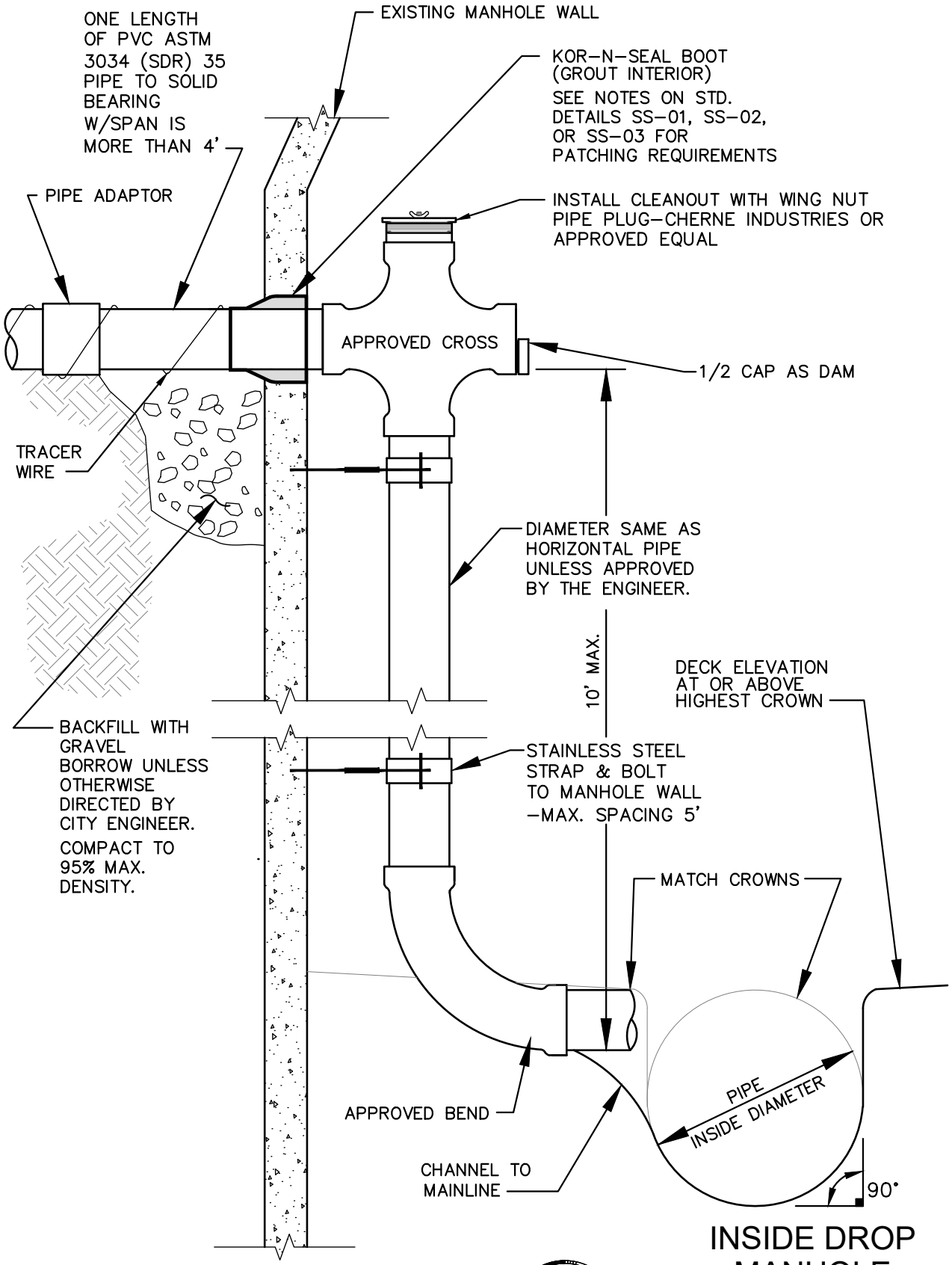
1/2019	GS	NTS	SS-08



INSIDE DROP MANHOLE CONNECTION

NOTE
SEE MANHOLE SIZING CHART FOR MINIMUM MANHOLE DIAMETER REQUIREMENTS.

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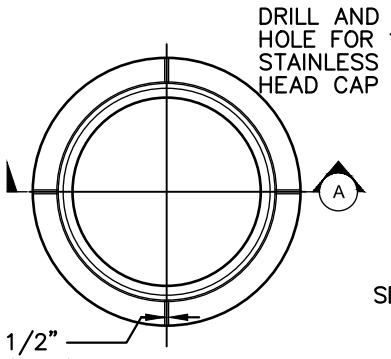
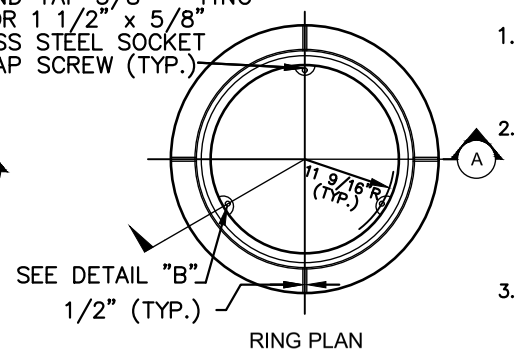
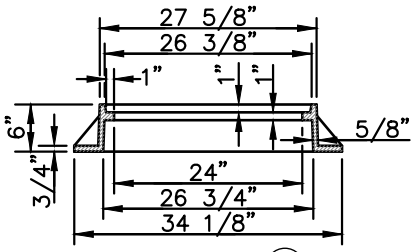


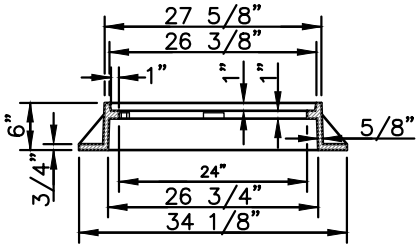
RING PLAN



RING PLAN



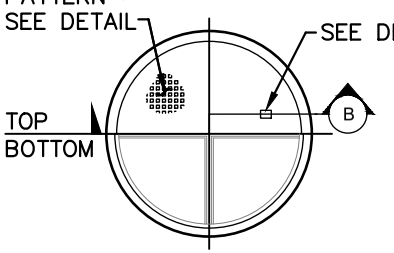
RING SECTION (A)



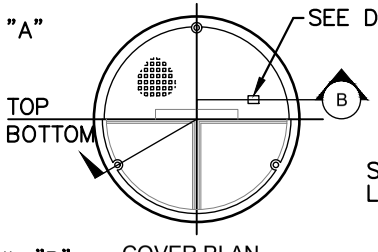
RING SECTION (A)

NOTES

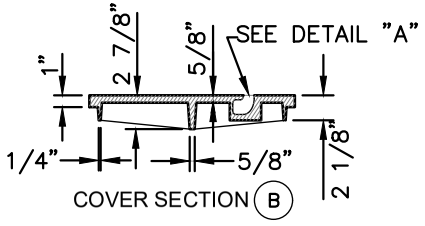
1. THE GASKET AND GROOVE MAY BE IN THE SEAT (FRAME) OR IN THE UNDERSIDE OF THE COVER. THE GASKET MAY BE "T" SHAPED IN SECTION. THE GROOVE MAY BE CAST OR MACHINED.
2. BOLT–DOWN CAPABILITY IS REQUIRED ON ALL FRAMES, GRATES, AND COVERS, UNLESS SPECIFIED OTHERWISE IN THE CONTRACT. PROVIDE 3 HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE OR COVER SLOTS. THE FRAME SHALL ACCEPT THE 5/8" – 1 NC ×2" ALLEN HEAD CAP SCREW BY BEING TAPPED, OR OTHER APPROVED MECHANISM. LOCATION OF BOLT DOWN HOLES VARIES BY MANUFACTURER.
3. FOR BOLT–DOWN MANHOLE RING AND COVERS THAT ARE NOT DESIGNATED "WATERTIGHT," THE NEOPRENE GASKET, GROOVE, AND WASHER ARE NOT REQUIRED.
4. WASHER SHALL BE NEOPRENE (DETAIL "B").
5. IN LIEU OF BLIND PICK NOTCH FOR MANHOLE COVERS, A SINGLE 1" PICK HOLE IS ACCEPTABLE. HOLE LOCATION AND NUMBER OF HOLES MAY VARY BY MANUFACTURER.
6. ALTERNATIVE REINFORCING DESIGNS ARE ACCEPTABLE IN LIEU OF THE RIB DESIGN.
7. WATERTIGHT MANHOLE COVER SHALL BE OLYMPIC FOUNDRY INC., OR APPRV'D EQUAL.
8. ALL MANHOLE RING & COVERS TO MEET CURRENT WSDOT STD. SPECIFICATIONS.



COVER PLAN

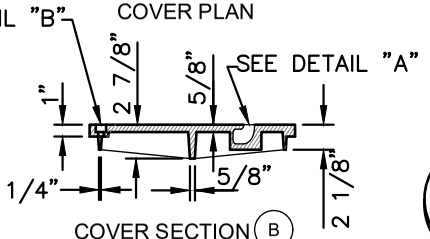


COVER PLAN



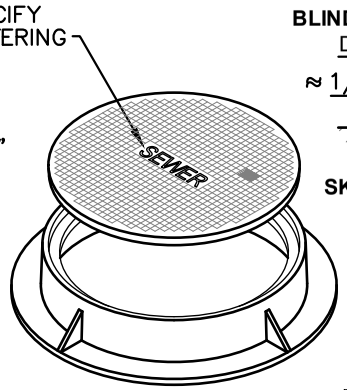
COVER SECTION (B)

STANDARD
TYPE 1

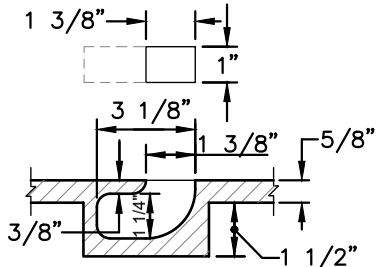


COVER SECTION (B)

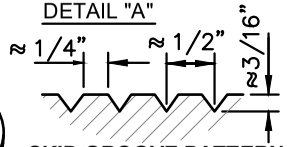
(SEE NOTE 7)
BOLT-DOWN / WATERTIGHT
TYPE 2



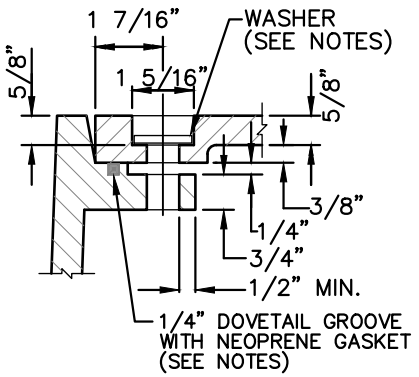
ISOMETRIC VIEW



BLIND PICK NOTCH
DETAIL "A"



SKID GROOVE PATTERN DETAIL



BOLT-DOWN / WATERTIGHT
DETAIL "B"

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MANHOLE RING & COVER for UNPAVED AREAS

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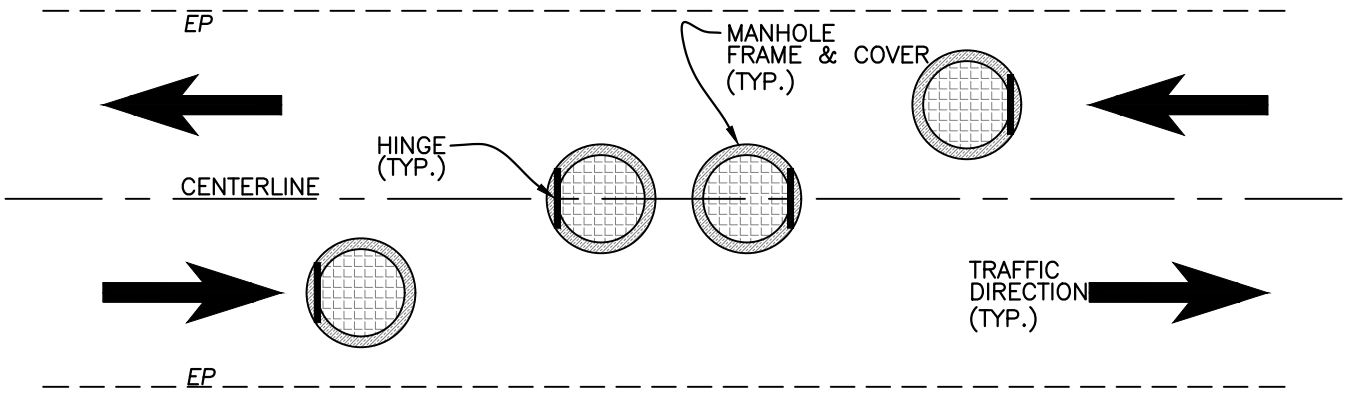
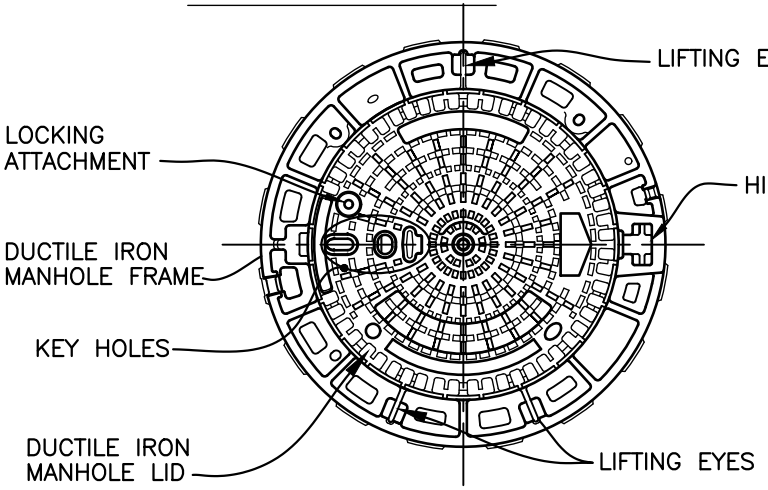
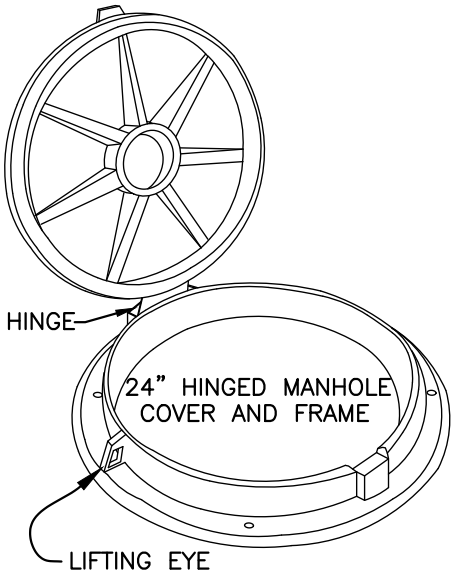


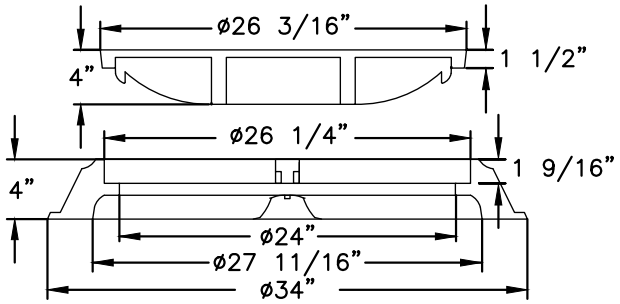
PLAN VIEW





ISOMETRIC VIEW

TOP VIEW



ELEVATION VIEW

NOTES:

1.) MANHOLE COVER AND FRAME SHALL BE CALLED EAST JORDAN. COVER AND FRAME SHALL BE MANUFACTURED FROM DUCTILE IRON. HINGE MUST BE PERPENDICULAR TO FLOW OF TRAFFIC. SEE PLAN VIEW.

2.) COVERS SHALL HAVE LOCKING ATTACHMENT. COVERS SHALL BE HINGED AND INCORPORATE A 90 DEGREE BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE. COVERS SHALL BE ONE MAN OPERABLE USING STANDARD TOOLS AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 80,000 LBS.

3.) FRAMES SHALL BE CIRCULAR, INCORPORATE A SEATING RING AND A FITTED PLUG IN THE HINGE HOUSING, AND BE AVAILABLE IN A 24 INCH CLEAR OPENING. THE FRAME DEPTH SHALL NOT EXCEED 4 INCHES, AND THE FLANGE SHALL INCORPORATE BEDDING SLOTS, BOLT HOLES, AND LIFTING EYES.

4.) ALL COMPONENTS SHALL BE BLACK COATED.

5.) FOR MANHOLE INSTALLATION OUTSIDE OF PAVED AREAS SEE C.O. SHELTON STD. DETAIL SS–12.

"Building A Stronger Community TOGETHER"

EAST JORDAN MANHOLE FRAME & COVER

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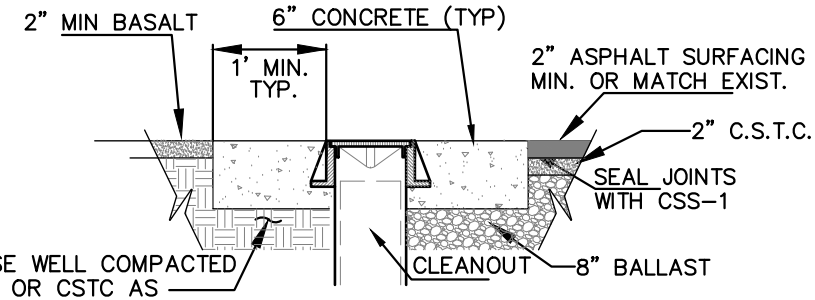
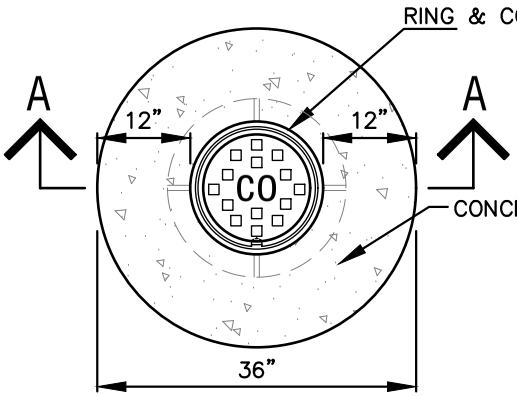
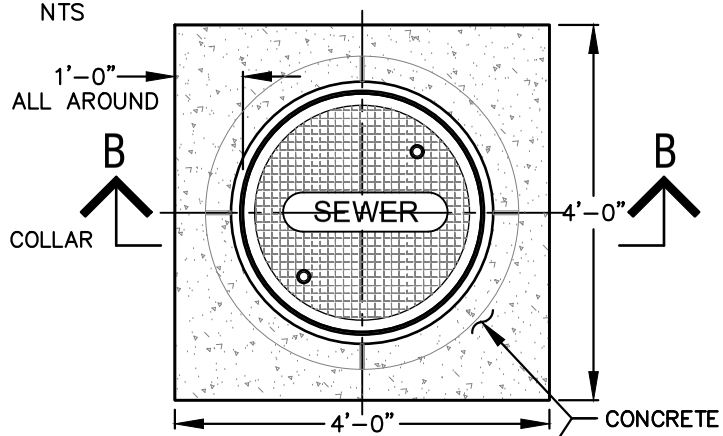
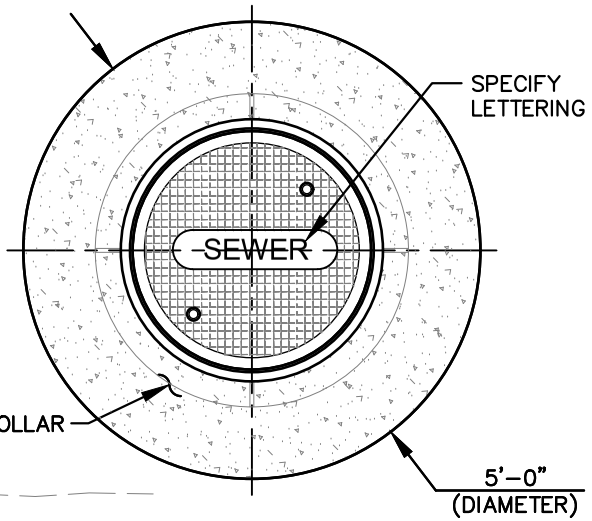


NTS

NOTE:
ALL CONCRETE COLLARS TO BE COMMERCIAL CONCRETE PER CURRENT WSDOT STD. SPEC.

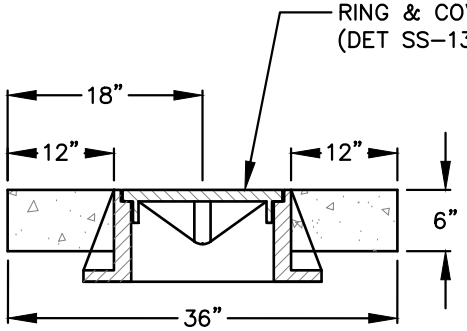






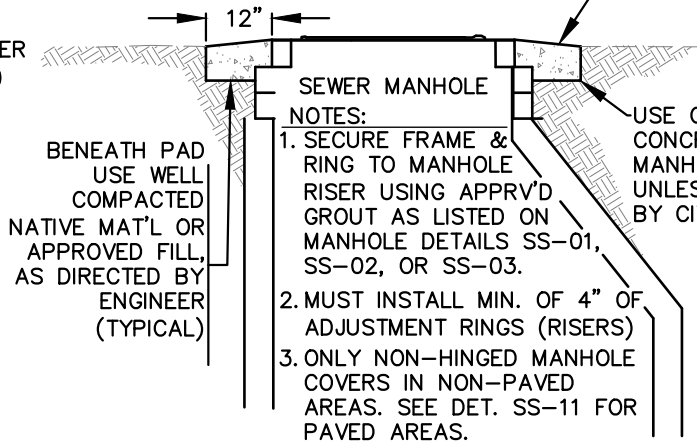
MANHOLE FRAME & COVER
W/ CONCRETE COLLAR
OUTSIDE PAVED AREA

NTS



CLEANOUT RING & COVER
W/ CONCRETE COLLAR

NTS



SECTION B-B (OUTSIDE PAVED AREA)

NTS

MANHOLE & CLEANOUT SURFACE RESTORATION WITHIN RIGHT-OF-WAY

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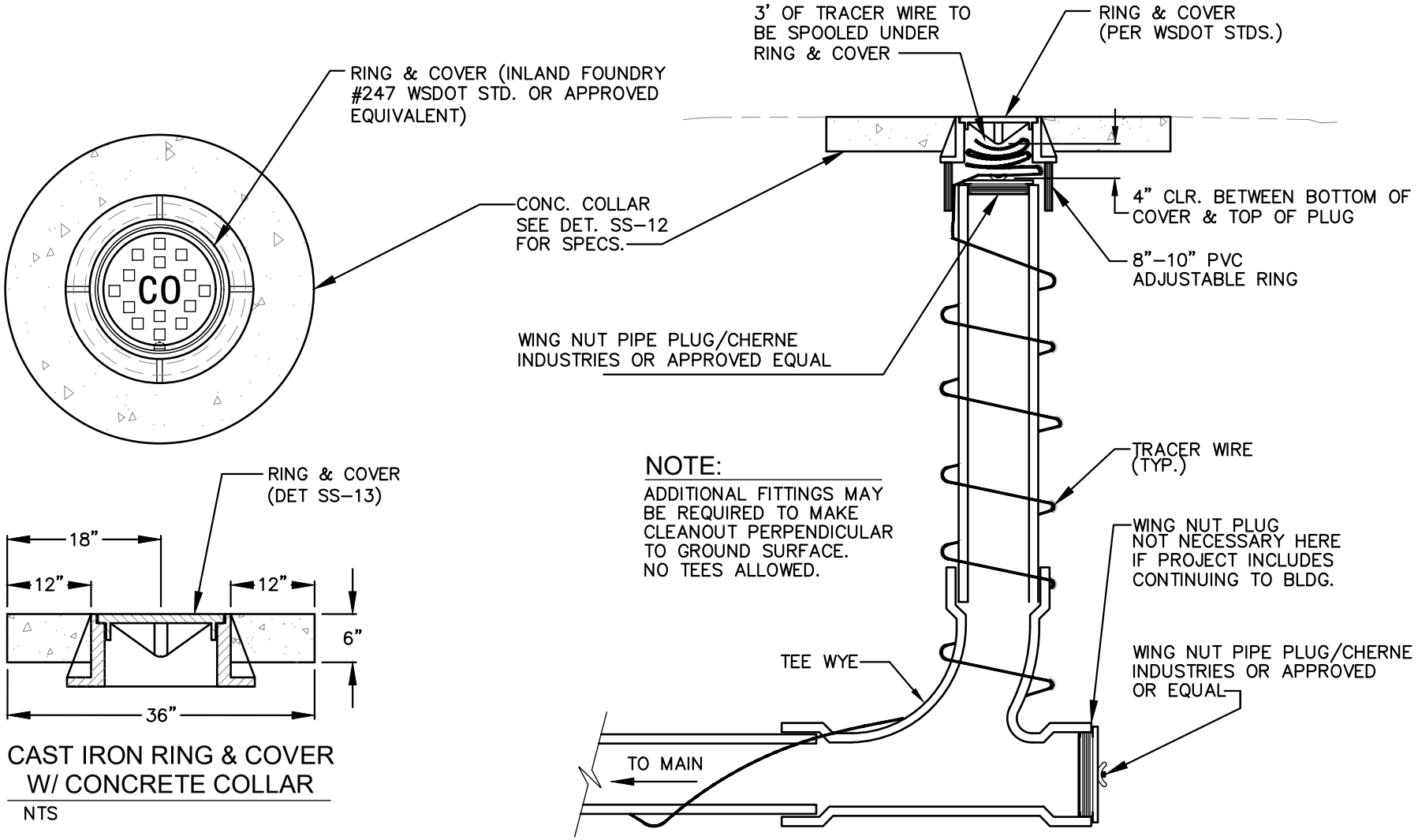

NOTE:

ADDITIONAL FITTINGS MAY BE REQUIRED TO MAKE CLEANOUT PERPENDICULAR TO GROUND SURFACE. NO TEES ALLOWED.

CAST IRON RING & COVER W/ CONCRETE COLLAR

NTS

NOTE:

A CLEANOUT SHALL BE PROVIDED FOR EACH TOTAL CHANGE OF 90 DEGREES OF GRADE OR ALIGNMENT AND IN NO CASE SHALL THE SPACING OF CLEANOUTS EXCEED 100 FEET.

CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

CLEANOUT DETAIL

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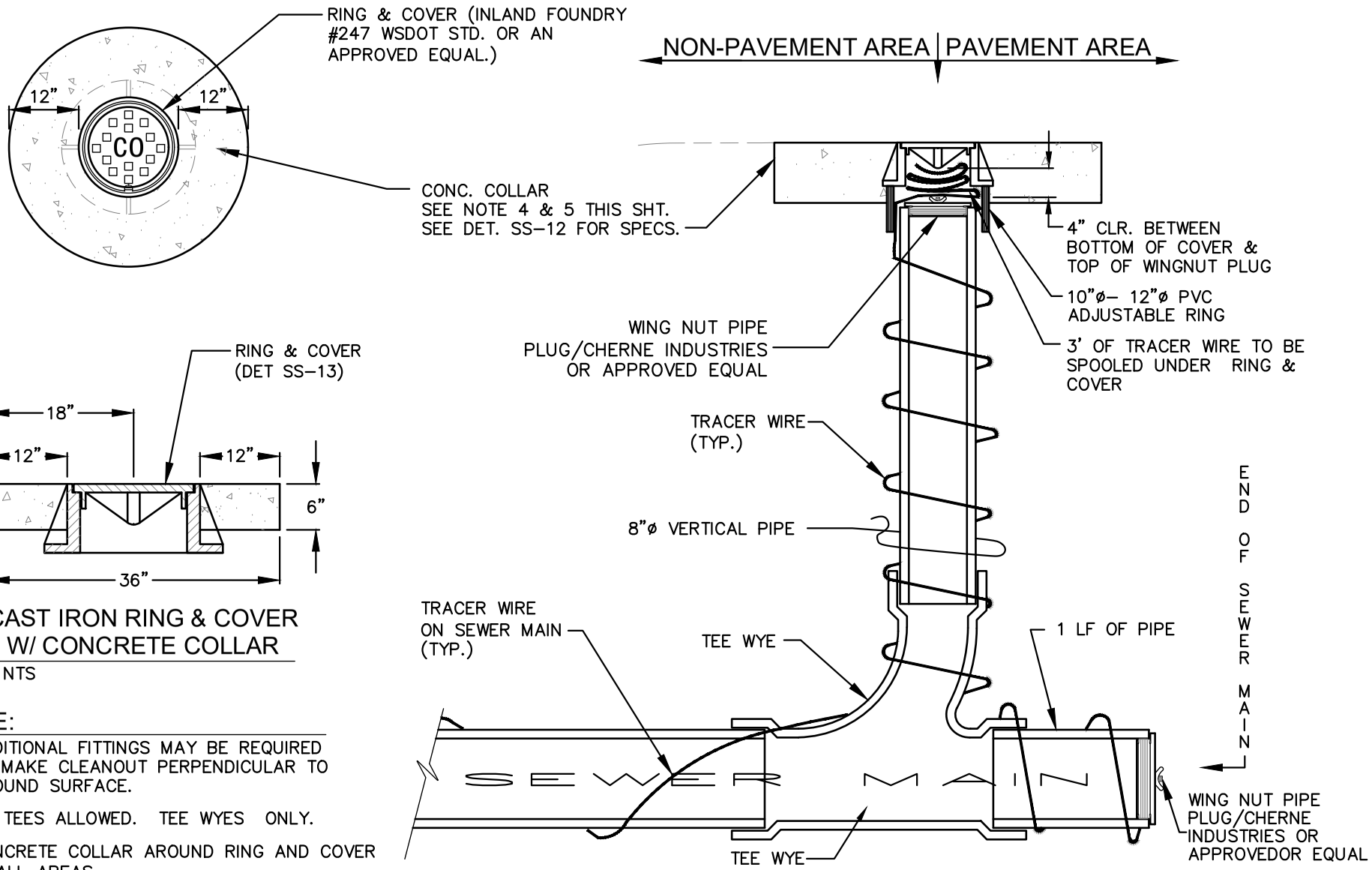

CAST IRON RING & COVER W/ CONCRETE COLLAR

NTS

NOTE:

1. ADDITIONAL FITTINGS MAY BE REQUIRED TO MAKE CLEANOUT PERPENDICULAR TO GROUND SURFACE.
2. NO TEES ALLOWED. TEE WYES ONLY.
3. CONCRETE COLLAR AROUND RING AND COVER IN ALL AREAS.
4. ALL CONCRETE SHALL BE COMMERCIAL CONCRETE PER CURRENT WSDOT STD. SPECIFICATIONS.
5. ALL ASPHALT PAVEMENT & MATERIAL BELOW SURFACE TREATMENT TO BE PER C.O. SHELTON STANDARDS.

CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

SEWER MAIN LAMPHOLE DETAIL

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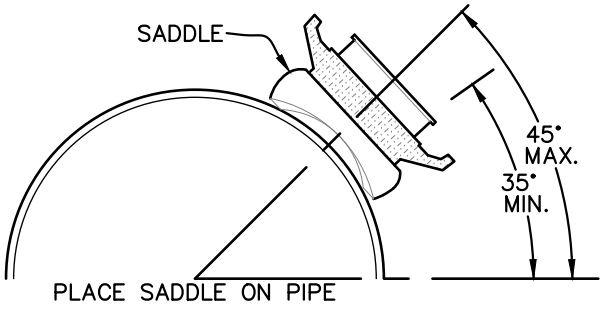
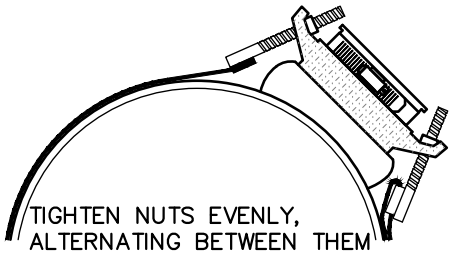
DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SS-13A



PLACE SADDLE ON PIPE

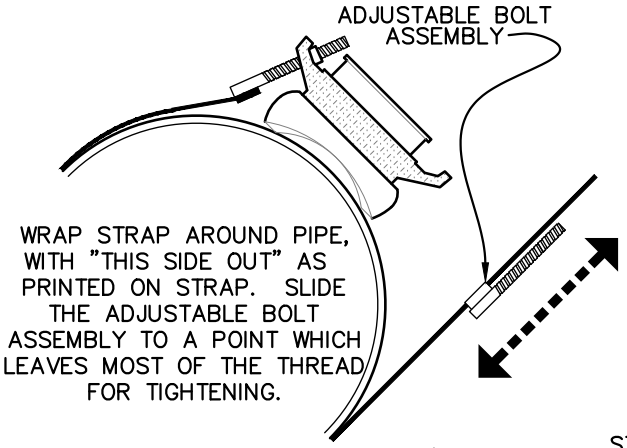


TIGHTEN NUTS EVENLY, ALTERNATING BETWEEN THEM UNTIL APPROPRIATE TORQUE IS REACHED (SEE BELOW)

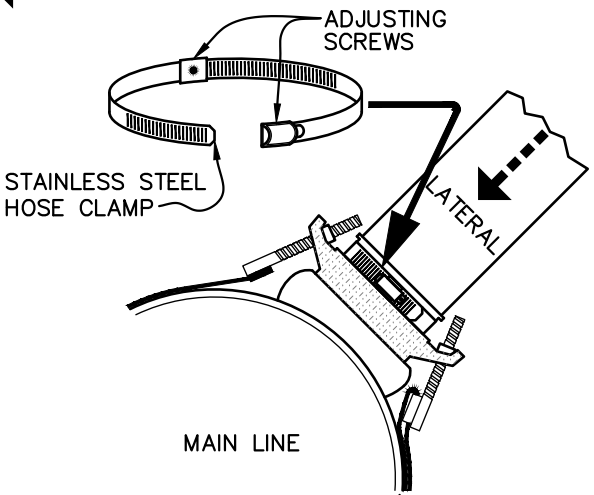
SIGNIFICANT FLATTENING OF PVC PIPE INDICATES OVER TIGHTENING. IN ALL CASES WAIT 10 MINUTES AND TORQUE AGAIN.

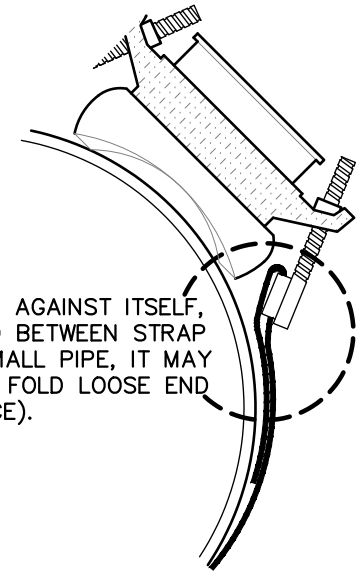
NOMINAL PIPE DIAMETER	TORQUE
6"–12"	15 – 20 FT.–LBS.
14"–48"	20 – 30 FT.–LBS.

25 FT–LBS. = 12" WRENCH W/25 LBS. FORCE



WRAP STRAP AROUND PIPE, WITH "THIS SIDE OUT" AS PRINTED ON STRAP. SLIDE THE ADJUSTABLE BOLT ASSEMBLY TO A POINT WHICH LEAVES MOST OF THE THREAD FOR TIGHTENING.





FOLD STRAP BACK AGAINST ITSELF, PLACING FREE END BETWEEN STRAP AND PIPE. (ON SMALL PIPE, IT MAY BE NECESSARY TO FOLD LOOSE END TWICE).

LUBRICATE AND INSERT LATERAL/OUTLET END.

THE CB SEWER SADDLES ARE PROVIDED WITH A BAND CLAMP (HOSE CLAMP) WHICH ALLOWS IT TO HAVE A RANGE. THE BAND CLAMP COMES WITH TWO ADJUSTING SCREWS WHICH PROVIDE MUCH GREATER CLAMPING FORCE THAN BAND CLAMPS WITH ONLY ONE ADJUSTING SCREW. THE BAND CLAMP NEEDS TO BE ASSEMBLED AROUND THE LATERAL/OUTLET AND BOTH ADJUSTING SCREWS TIGHTENED EVENLY.

NOTES:

1. CHECK DIAMETER OF MAIN AND BRANCH PIPE TO MAKE SURE YOU ARE USING THE CORRECT SIZE SADDLE GASKET; ALSO CHECK GASKET TO MAKE SURE IT IS THE SIZE YOU THINK IT IS.
2. REMOVE AS MUCH DIRT AND CORROSION FROM PIPE SURFACES AS POSSIBLE.
3. MAKE SURE NO FOREIGN MATERIALS LODGE BETWEEN SADDLE GASKET AND PIPE AS NUTS ARE TIGHTENED.
4. AVOID LOOSE FITTING WRENCHES OR WRENCHES TOO SHORT TO ACHIEVE PROPER TORQUE.
5. TAKE EXTRA CARE TO FOLLOW PROPER BOLT TIGHTENING PROCEDURES AND TORQUE RECOMMENDATIONS.
6. BACK FILL AND COMPACT CAREFULLY AROUND LATERAL/OUTLET.
7. THE HOLE CUT IN THE MAIN SHOULD BE NO LARGER THAN THE INSIDE DIAMETER OF THE SADDLE GASKET. THE 4" GASKET HAS AN I.D. OF 5.20, THE 6" GASKET HAS AN I.D. OF 6.40.
8. LUBRICATING BETWEEN THE SADDLE GASKET AND THE MAIN ON ROUGH OR LARGE O.D. PIPE CAN IMPROVE THE SEALING CAPACITY OF THE SADDLE.
9. DURING INSTALLATION THE TEMPERATURE OF THE SADDLE GASKET ITSELF CAN BE IMPORTANT. THE TEMPERATURE OF THE SADDLE GASKET SHOULD NOT FALL BELOW ~45° F.
10. IT IS NECESSARY TO BEVEL THE LATERAL/OUTLET PIPE END AND LUBRICATE PIPE END AND SADDLE GASKET HUB.
11. WHEN REINSTALLING PARTS WITH STAINLESS STEEL HARDWARE THERE MAY BE A LOSS IN PRESSURE HOLDING ABILITY DUE TO WORN OR DAMAGED THREADS DURING ORIGINAL INSTALLATION.

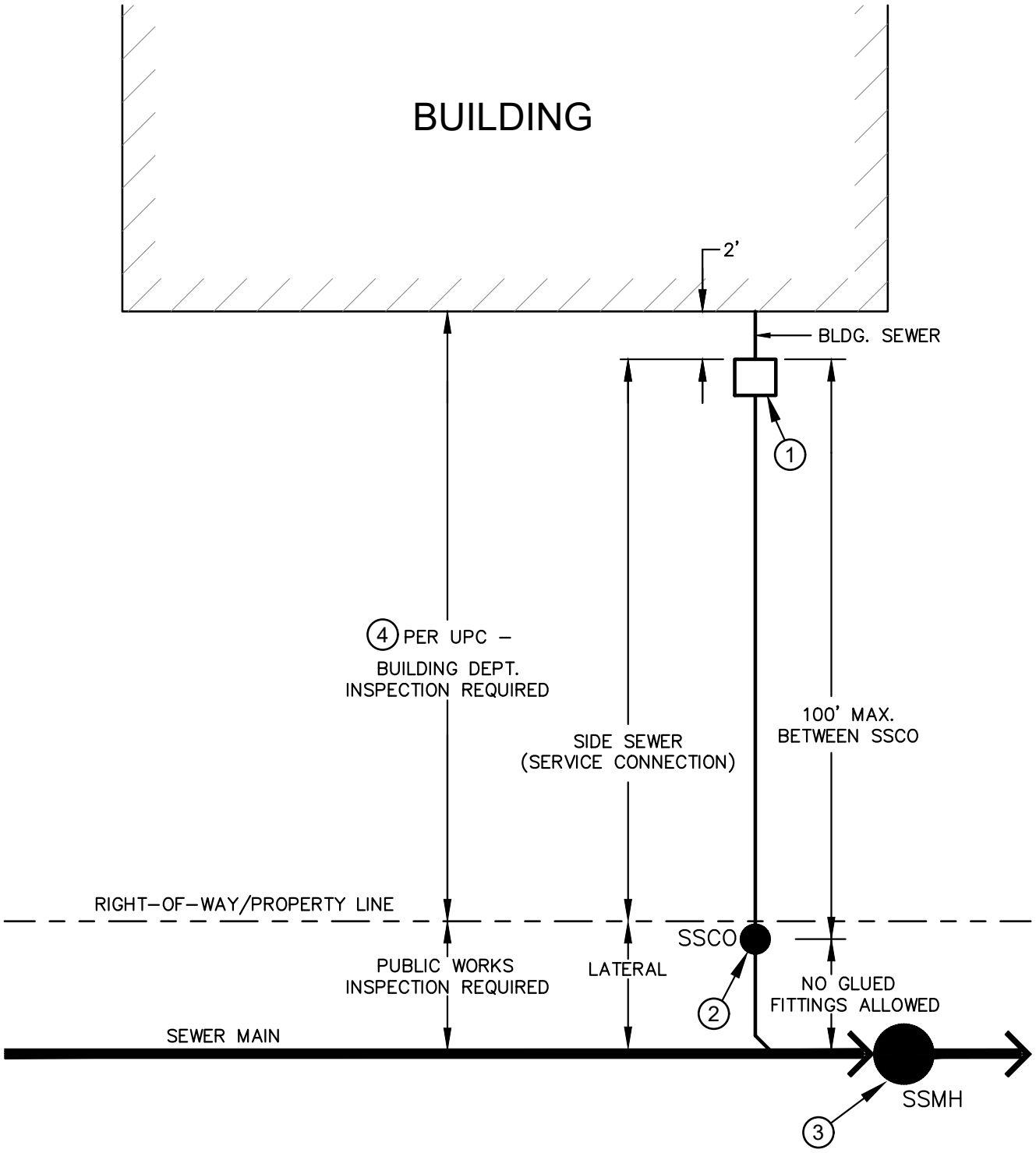
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

ROMAC STYLE "CB" SEWER SADDLE
TYPICAL SEWER CONNECTION TO EX. SEWER MAIN

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	SS-14



LEGEND:

1. SANITARY SEWER BACKWATER VALVE DEVICE
2. SANITARY SEWER CLEANOUT
3. SANITARY SEWER MANHOLE
4. CONSTRUCTED PER "UNIFORM PLUMBING CODE" GUIDELINES

"Building A Stronger Community TOGETHER"

SEWER LINE TERMINOLOGY

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
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"Building A Stronger Community TOGETHER"

DETAIL TITLE

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"Building A Stronger Community TOGETHER"

DETAIL TITLE

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
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C H A P T E R 6

6.000 RECLAIMED WATER

6.010 Introduction

Any extension of the City of Shelton reclaimed water system must be approved by the Public Works Department. Construction of all extensions must conform to these Standards and the specifications and details contained in this Chapter.

Anyone who wishes to extend or connect to the City's reclaimed water system shall contact the Public Works Department to discuss the anticipated use, anticipated volume, desired flow rate and the availability of reclaimed water.

Reclaimed water, like potable water, is a limited resource. During periods of high demand, the reclaimed water system MAY NOT have the capacity to meet individual requests.

The developer's engineer is responsible for determining the scope of work for connection to existing reclaimed water mains.

It shall be the contractor's responsibility to field verify the location and depth of the existing main and the fittings required to make the connections to the existing mains. The City shall be present during any contractor taps. All fittings shall be approved by the Public Works Department prior to installation.

6.020 Connecting New Users

As part of the application process, the City will meet with the applicant to review a draft *Class A Reclaimed Water Service Agreement*, and discuss the responsibilities of being a reclaimed water user. Prior to connection to the reclaimed water system and issuance of a reclaimed water meter, a *Class A Reclaimed Water Service Agreement* must be executed, and all applicable fees must be paid. All use of Reclaimed Water shall meet the current Washington State Department of Health and Ecology's "Water Reclamation and Reuse Standards". A copy of the standards can be found on the Washington State Department of Health website at www.doh.wa.gov/CommunityandEnvironment/WastewaterManagement/WaterReclamation.

The user shall install a reclaimed water meter at all use sites. All reclaimed water use sites should be metered and the rate of flow and total annual volume monitored. Should the maximum allowed volume of reclaimed water be exceeded in any calendar year, the City may terminate the service for the remainder of the calendar year or until the critical demand period has passed. The decision to terminate reclaimed water service will be at the sole discretion of the City.

6.030 Irrigating with Reclaimed Water

Those users approved for use of reclaimed water for irrigation should irrigate at the Normal Agronomic Rate or less, and should not exceed this limit at any time. Normal Agronomic Rate is defined as that rate of irrigation required by the plants or vegetation. Variables, such as soil type, type of vegetation and precipitation play a role in Normal Agronomic Rate.

Adequate soil surface storage is required to limit translocation of water within the use area and perhaps causing runoff from the site during the infiltration process. Sprinkler systems should be designed with application rates that do not exceed the soil intake and plant evapotranspiration rate.

The applicant must provide documentation supporting the requested flow rates, a description of the area to be irrigated, and the proposed vegetation. The City utilizes the Crop Irrigation Requirement found in Appendix B of the U.S. Department of Agriculture Irrigation Guide as the basis for determining the irrigation requirement for turf (USDA, 1992). The annual irrigation requirement for the City, utilizing the chart for Olympia, is 16.47 inches per year.

6.040 Design Standards

The design of reclaimed water extensions, connection or facilities must conform to this Chapter, the applicable sections of the latest edition of DOE's Criteria for Sewerage Works Design, the Washington State Department of Transportation's Standard Specifications for Road and Bridge Construction and Washington State Department of Health Water Reclamation and Reuse Standards.

6.050 Service Interruption

The contractor must give the City a minimum of 48 hour notice of any planned connection to an existing pipeline, including cut-ins and live taps. Notice is required so any disruptions to existing

services can be scheduled. The City will notify customers involved or affected by the reclaimed water service interruption. The contractor shall make every effort to schedule reclaimed water main construction with a minimum interruption of reclaimed water service. During periods of high demand, the City may dictate scheduling of reclaimed water main construction to avoid shut downs during specific periods.

6.060 Main Line

A. The minimum reclaimed water main size is 4 inches. Where 8-inch or larger mains are placed, reclaimed water hydrants shall be installed. The location of the reclaimed water hydrants shall be coordinated with the City.

B. All pipe for reclaimed water mains shall have flexible gasketed joints, be colored purple (Pantone 512 or 522) and bear the marking "Reclaimed Water – Do Not Drink" printed along the length, and must be one of the following types:

    1. Polyvinyl Chloride (PVC) Pipe (under four inches): Pipe material shall be PVC 1120, PVC 1220, or PVC 2120, and have minimum wall thickness equal to or less than the standard dimension ratio (SDR) of 21, and meet the requirements of WSDOT Standard Specifications Section 9-30.1(5)B.

    2. PVC Pipe (4 through 12 inches): Shall meet the requirements of AWWA C900, Class 150 wall thickness equal to or less than the SDR of 18, and meet the requirements of WSDOT Standard Specifications Section 9-30.1(5)A.

    3. In general, ductile iron pipe shall not be used except where sound engineering practice would dictate its use to protect pipe integrity. In cases where ductile iron pipe must be used, the pipe shall be sleeved with a purple liner.

C. All fittings for PVC pipe shall be ductile iron compact fittings conforming to AWWA C 153 or Class 250 gray iron conforming to AWWA C 110 and C 111. All shall be cement mortar lined conforming to AWWA C 104.

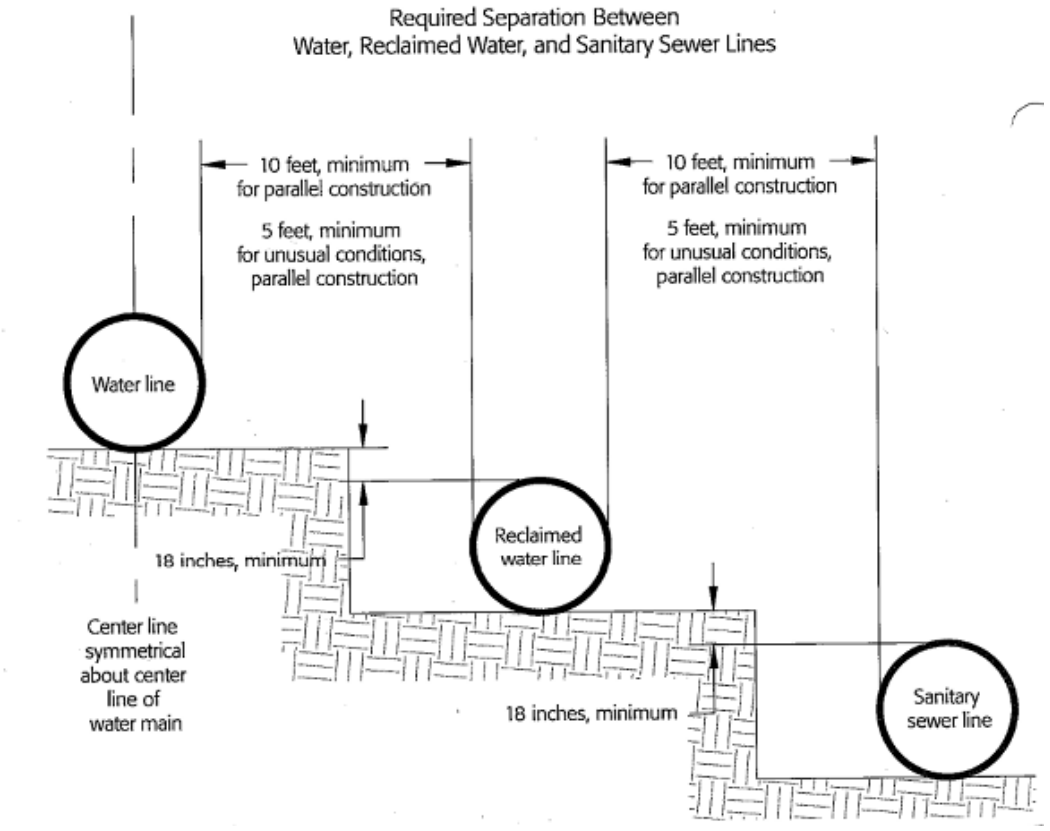
D. All pipe and service lines shall be installed with continuous tracer tape installed 12 to 18 inches under the final ground surface. The marker shall be plastic, non-biodegradable, marked "Reclaimed Water – Do Not Drink" three-inch wide minimum. Install 14 gauge heavy duty direct busy coated

copper wire (PAIGE "UF" single conductor or equal), wrapped around the pipe, brought up and tied off at valve body. All wire connections shall use wire nuts and epoxy DBY wire connection kit.

E. The minimum cover for all reclaimed water mains from top of pipe to finished grade shall be 36 inches, unless otherwise approved.

F. The contractor shall maintain a minimum of 18 inches of separation between sanitary sewers and reclaimed water mains and 18 inches of separation between reclaimed water mains and potable water mains. The minimum depth below ground surface for reclaimed water is 36 inches and the maximum depth is 42" provided no conflicts with other utilities. The minimum depth may be reduced, upon City approval, to provide for as much vertical separation as possible from water and sewer lines.

The following displays the minimum vertical and horizontal separation requirements for water, reclaimed water and sewer lines. For unusual conditions, when the minimum horizontal spacing requirements cannot be met, the City may consider reducing the minimum separation.



6.070 Reclaimed Water Meter Location

Reclaimed water meter locations shall be easily accessible to City personnel for meter reading. Meters and service valves shall remain outside the property line/fence line.

No trees or shrubs shall be planted within 3 feet of any reclaimed water meter. Improvements or landscaping of any sort shall not be constructed in any manner which will impede easy access for maintenance to reclaimed water meters.

6.080 Service Connection

Prior to connecting to the reclaimed water system, the property owner shall submit an application for service to the City. The City will evaluate the ability of the reclaimed water system to provide the requested volume, flow rate and pressure.

A. All service connections relating to new development shall be installed by the developer at the time of mainline construction. After the lines have been constructed, tested and approved, the owner may apply for a reclaimed water meter. The Contractor

will install reclaimed water meters 1 ½" and larger after the application has been made and all applicable fees have been paid. Reclaimed water meters will be set only after the system is inspected and has received final approval, and the parties have fully executed a Reclaimed Water User Agreement. The City will lock off meter until approved for service. All reclaimed water services between the City main and the meter are property of the City.

B. Service lines shall be one-inch high-density polyethylene pipe, minimum pressure class 200 psi DR7. No glued joints will be accepted. Service lines shall be installed 90 degrees off the main. Tracer wire wrapped around the pipe shall be installed on all service lines.

C. Service saddle shall be all ductile iron body with stainless steel straps and shall be *ROMAC* Industries or approved equal.

D. Corporation stop shall be all bronze and shall have iron pipe threads conforming to AWWA C 800. Stainless steel inserts shall be used with pack joints and polyethylene pipe.

E. A master meter may be allowed to serve multiple buildings or sites at the sole discretion of the City. If a master meter is allowed to serve more than one building or site, an approved RPBA device(s) must be installed at all buildings serviced by potable water.

F. A backflow assembly is required per Section 6.130.

6.090 Hydrants

A. The lead from the service main to the hydrant shall be purple (Pantone 512 or 522) PVC and meet the requirements of AWWA C900, Class 150 wall thickness must be equal to or greater than the SDR of 18, and meet the requirements of Standard Specifications Section 9-30.1(5)A. The pipe shall be no less than six inches in diameter. MJ joint shall be connected to the hydrant mechanical joint by a mechanical joint restraint, *Mega Lug* 2000PV or approved equal.

B. Hydrants shall have two, 2 ½-inch outlets and one 4 ½-inch pumper port outlet. All outlet ports shall be National Standard thread. The valve opening shall be no less than 5 ¼-inch diameter with a 5-inch "Storz" coupling and blind flange cap installed on the steamer port. The hydrant shall have a positive and automatic barrel drain and shall be of the "traffic safety" or break-away style; i.e., when accidentally broken off, reclaimed water will not flow.

C. All hydrants shall be center-stem compression design and valves shall open against pressure. Hydrants shall be manufactured by *Mueller*, *M&H*, or approved equal. All hydrants shall be tagged identifying the hydrant as a reclaimed water device. Hydrants shall be bagged until system is approved or until adequate reclaimed water flow can be provided. Hydrants shall be set as shown in Standard Drawing W-08 and W-09.

D. Where needed for protection as determined by the City, hydrants shall be protected by two or more bollards, each 8 inches in diameter by 5 feet in height made of either reinforced concrete or steel. Posts shall be painted to match hydrant color.

E. Reclaimed water hydrants shall be painted purple (Pantone 512 or 522).

6.100 Valves

Where possible, valves shall be located at tees or crosses.

All valves shall be ductile iron with ANSI flanges or mechanical joint ends. All existing valves shall be operated by City employees only.

Valves shall be installed in the distribution system at intervals no less than one valve every 500 feet. There shall be two valves on each tee and three valves on each cross.

A. Gate Valves, 2 inches or greater. The design, materials and workmanship of all gate valves shall conform to AWWA standards. Gate valves shall be Mueller, M & H, Kennedy, Clow R/W, Waterous Series 500 Gate valves shall be used on all 6 to 10 inch lines.

B. Butterfly Valves. Butterfly valves shall conform to AWWA. Butterfly valves shall conform to AWWA C504, Class 150B, with cast iron short body and O-ring stem seals. Butterfly valves shall be Mueller, Linseal III, Kennedy, Pratt Ground Hog, Allis Chalmers, or an approved equal. Butterfly valves may be used on all lines 12 inches and larger.

C. Valve Box. All valves shall have a standard Olympic Foundry, Reclaimed Water valve box or approved equal per Standard Detail W-07 and W-07A.

6.110 Air and Vacuum Release Valve

Combination air and vacuum release valves shall be 2" APCO combination air release valve, or approved equal. Installation shall be as shown on Standard Drawing RW-04.

The installation shall be set at the high point of the line. Where possible, pipes are to be graded to prevent the need for an air release valve. Air release valves may not be required when services are in the vicinity.

6.120 Blow-off Assembly

If a fire hydrant is not located at the terminus of a dead end main, a blow-off assembly shall be required. On reclaimed water mains that will be extended in the future, the valve, which operates the blow-off assembly, shall be the same size as the main and provided with a concrete thrust block. The pressure rating for blow-off assemblies shall be 200 psi. Installation shall be as shown in Standard Drawing RW-07.

6.130 Backflow Assembly

The purpose of this section is to provide guidance for protecting potable water systems from contamination. The installation of all backflow devices is required to protect the existing potable water system and users from potential contamination.

A cross connection is any actual or potential physical connection between a potable water line and any pipe, vessel, or machine containing a non-potable fluid or that has the possibility of containing a non-potable fluid, solid or gas, such that it is possible for the non-potable fluid, solid or gas to enter the water system by backflow. A cross connection could be any physical arrangement where a potable water supply is directly or indirectly connected with any non-potable or unapproved water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or any other device which contains, or may contain, contaminated water, liquid, gases, sewage, or other waste of unknown or unsafe quality which may import contamination to the potable water supply as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices, and other temporary, permanent or potential connections through which, or because of which, backflow could occur are considered to be cross connections.

Cross connections between the potable water and the reclaimed water system are not allowed under any circumstance. The City of Shelton is responsible for ensuring compliance with provisions of their approved Cross Connection Control (CCC) program.

Any site served with reclaimed water and potable water shall be provided with service-line protection. An approved reduced pressure backflow assembly (RPBA) device shall be installed on the potable water system at the potable water meter.

The Public Works Department shall receive the approved certification of test results for each RPBA device before allowing the hookup to the reclaimed water system. Certified Cross Connection Control personnel must test the RPBA device.

6.140 Irrigation

Irrigation sprinklers shall be situated to not overspray onto any public street, sidewalk or adjacent property. Irrigation shall be directed away from food facilities and public areas such as park barbeques. Sites shall be graded to prevent ponding or runoff of reclaimed water.

All irrigation pipes shall be purple (Pantone 512 or 522). Sprinkler heads shall be purple. All valve and control boxes shall be identified as reclaimed water and shall be purple.

If an existing sprinkler system is to be retrofitted for the application of reclaimed water, the existing pipes do not have to be replaced. All sprinkler heads, however, shall be replaced with purple heads identifying the use of reclaimed water. All control and valve boxes shall be replaced with boxes identifying the use of reclaimed water. Prior to the application of reclaimed water, the existing system shall be thoroughly tested by the user to ensure there are no cross connections with the potable water system. Testing shall be determined by the City.

6.150 Staking

All surveying and staking shall be performed by a licensed engineer or land surveyor. A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.
The minimum staking of reclaimed water lines shall be as directed by the Public Works Director, or as follows:

A. Stake centerline alignment every 50 feet with cut or fill to invert of pipe maintaining minimum cover over pipe.

B. Stake location of all fire hydrants, tee, reclaimed water meters and other fixtures and mark cut or fill to hydrant flange finished grade.

6.160 Trench Excavation and Pipe Laying

Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City in conformance to WSDOT *Standard Specifications*. Debris resulting from the clearing and grubbing shall be disposed of by the contractor in accordance with the terms of all applicable permits. Track mounted equipment shall not be allowed on paved City streets and public rights-of-way outside of the approved project boundaries and gravel streets without prior approval by the City.

The contractor shall perform all excavation in whatever substance is encountered. Boulders, hardpan, clay rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below water main grade. Where materials are removed from below water main grade, the trench shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.

Trenches shall be excavated to the line and depth designated by the City to provide a minimum of 36 inches cover over the pipe. The trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space and in compliance with all State and Federal guidelines.

Surface water shall be diverted so as not to enter the trench. Trench water or other deleterious materials shall not be allowed to enter the pipe at any time. The contractor shall maintain sufficient pumping equipment on the job to ensure that these provisions are carried out. Provisions shall be made to prevent floating of the pipe.

The contractor shall handle all types of pipe in a manner that will prevent damage to the pipe, pipe lining or coating. Pipe and fittings shall be loaded and unloaded using hoists and slings in a manner to avoid shock or damage, and under no circumstances shall pipe be dropped, skidded, or rolled against another pipe.

If the Inspector determines that the contractor's methods are damaging to the pipe, the contractor shall correct the handling methods. All damaged pipe will be rejected, marked as such, placed apart from undamaged pipe, and shall be removed from the site within 24 hours. Pipe shall be stacked in such a manner as to prevent damage to the pipe, to prevent dirt and debris from entering the pipe, and to prevent any movement of the pipe. For public safety, each size of pipe shall be stacked separately.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations, and any pipe or fitting that has been installed with dirt or foreign material in it shall be removed, cleaned and re-laid. At times, when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or by other means approved by the Engineer to ensure cleanliness inside the pipe.

The bottom of the trench shall be finished to grade with hand tools in such a manner that the pipe will be bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to accommodate the joint.

Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflecting the joints. The amount of deflection at each pipe joint when pipe is laid on a curve shall not exceed the manufacturer’s printed recommended deflections. When rubber gasketed pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose.

. When the contractor is trenching and shoring adjacent to an existing water main or any other underground utilities or public safety concerns exist, the City may require more stringent trenching standards. Trenching, shoring and pipe laying shall be in conformance with Washington Industrial Safety and Health Administration (WISHA), Washington Department of Labor and Industries (L&I), the Office of Safety and Health Administration (OSHA) Safety Standards and any other agency with jurisdiction.

6.170 Thrust Blocking

Location of thrust blocking shall be shown on plans. Thrust block concrete shall be commercial Class 3000 psi poured against undisturbed earth. A plastic barrier shall be placed between all

thrust blocks and fittings. See Standard Drawings RW-08, RW-09, RW-10 for thrust block locations and calculations. If so desired, thrust blocking may be achieved through the use of Mega Lug Joint Restraints, or approved equals, to provide enough restrained length to make the pipe its own thrust block.

6.180 Backfilling

Backfilling and surface restoration shall closely follow installation of pipe so that no more than 100 feet is left exposed during construction hours without approval of the City. All trenches shall be backfilled during non-working hours unless otherwise approved by the City. Selected backfill material shall be placed and compacted around and under the reclaimed water main. The remaining backfill shall be compacted to 95 percent of the maximum density in traveled areas. Where governmental agencies other than the City have jurisdiction over roadways, the backfill and compaction shall be done to the satisfaction of the agency having jurisdiction. See Standard Drawing T-19 for backfill and bedding materials.

6.190 Street Patching and Restoration

A. Temporary Street Patching

Temporary Street Patching shall be in accordance with Shelton Design and Construction Standards in Chapter 2.190.

B. Trench Pavement Restoration

Trench Pavement Restoration shall be in accordance with Shelton Design and Construction Standards Chapter 2.200.

6.200 Hydrostatic Tests

Prior to the acceptance of the work, the installation shall be subjected to a hydrostatic pressure test, and any leaks or imperfections developing under said pressure shall be remedied by the contractor. The main shall be tested between valves. No hydrostatic pressure shall be placed against the opposite side of the valve being tested. Test pressure shall be maintained while the entire installation is inspected.

The contractor shall notify the City 48 hours in advance of the planned testing.

The contractor shall provide all necessary equipment and shall perform all work connected with the tests. Tests will be done after all connections have been made and the roadway section is

constructed to subgrade. This is to include all connections as shown on the plan. The contractor shall perform the test to assure that testing equipment is in good operating condition and the air in the line has been released before requesting the City to witness the test.

LIST OF DRAWINGS
CHAPTER 6 RECLAIMED WATER

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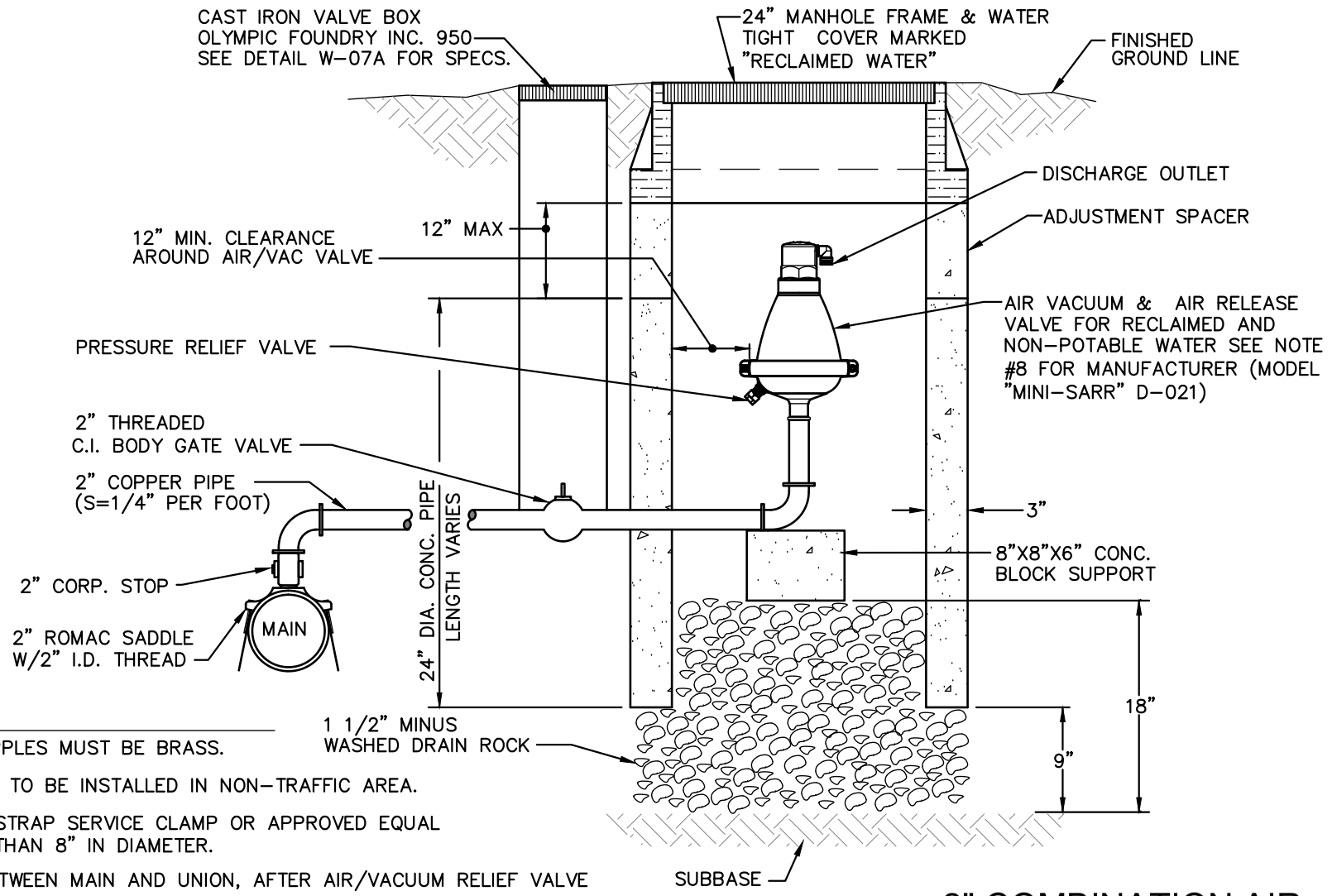
RECLAIMED WATER DETAILS



NOTES:

1. ALL FITTINGS AND NIPPLES MUST BE BRASS.
2. AIR-VAC UNIT & BOX TO BE INSTALLED IN NON-TRAFFIC AREA.
3. USE ROMAC DOUBLE STRAP SERVICE CLAMP OR APPROVED EQUAL ON ALL MAINS LESS THAN 8" IN DIAMETER.
4. ALL PIPE FITTINGS BETWEEN MAIN AND UNION, AFTER AIR/VACUUM RELIEF VALVE SHALL BE BRASS.
5. INSTALLATIONS FOR OTHER SIZE AIR/VACUUM RELIEF VALVES SHALL BE INDIVIDUALLY DESIGNED AND WILL REQUIRE APPROVAL BY THE UTILITIES DIVISION.
6. AIR/VAC RELEASE VALVE ASSEMBLY SHALL BE INSTALLED AT HIGH POINT ON LINE. IF HIGH POINT FALLS IN LOCATION WHERE ASSEMBLY CANNOT BE INSTALLED, PROVIDE ADDITIONAL DEPTH TO CREATE NEW HIGH POINT.
7. CONCRETE VAULT PENETRATIONS SHALL BE CORED DRILLED AND GROUTED.
8. PRODUCT MANUFACTURED BY A.R.I. FLOW CONTROL ACCESSORIES Ltd.

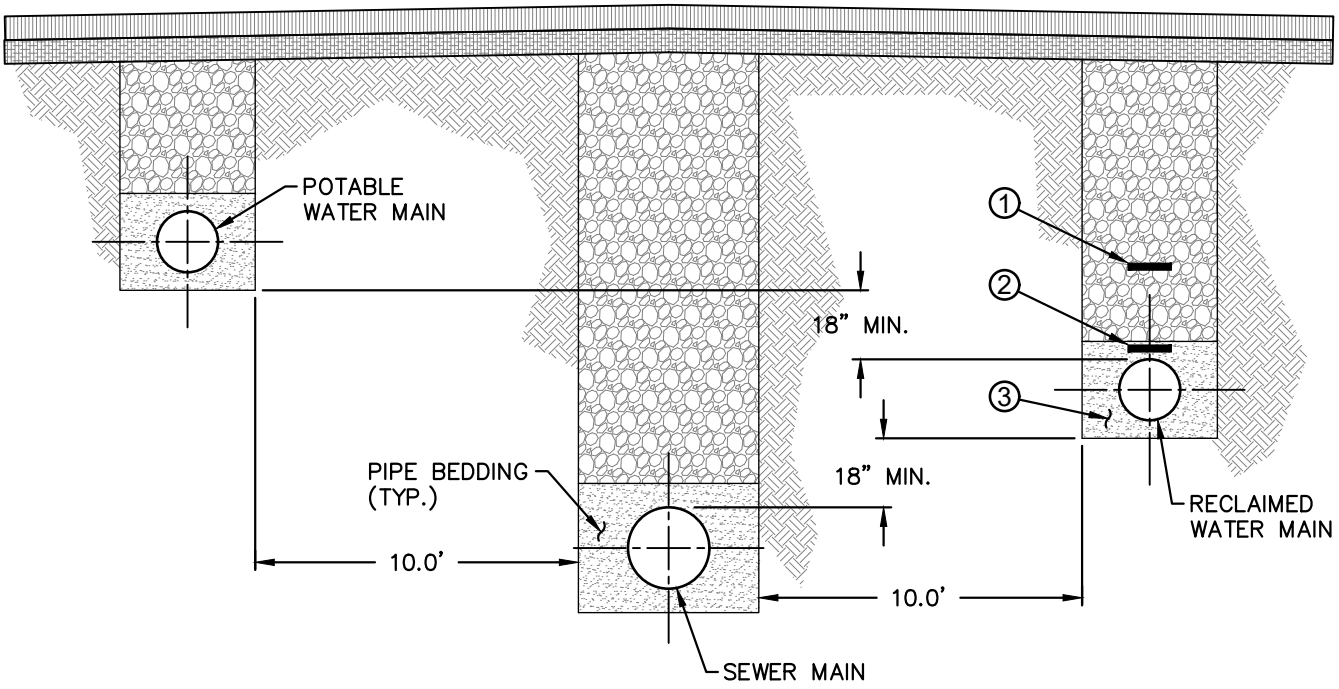
CITY of SHELTON WASHINGTON

"Building A Stronger Community TOGETHER"

2" COMBINATION AIR VACCUM/AIR RELEASE VALVE ASSEMBLY

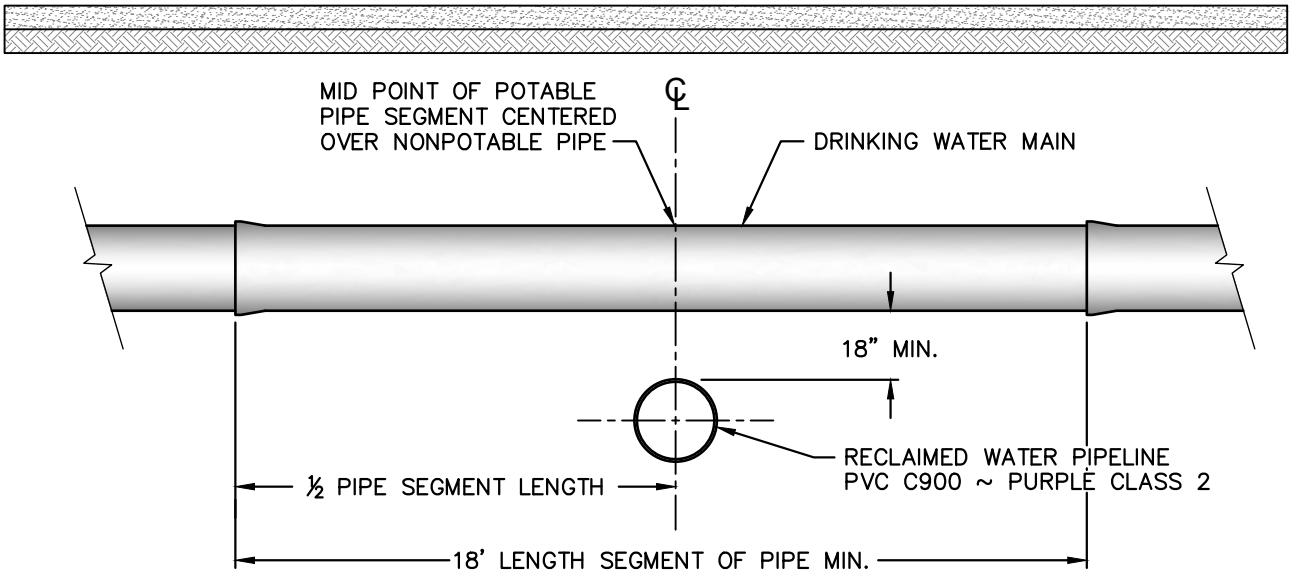
APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-01



TYPICAL URBAN UTILITY PIPE SEPARATIONS

NTS



TYPICAL UTILITY PIPE CROSSING

NTS

KEYNOTES:

① RECLAIMED WATER WARNING TAPE SHALL BE PLASTIC WITH NON BIODEGRADABLE METAL CORE OR BACKING THAT CAN BE TECTED WITH A STANDARD METAL DETECTOR. TAPE SHALL BE PURBLE WITH BLACK LETTERING STATING "CAUTION: RELAIMED WATER– DO NOT DRINK" AND SHALL BE PLACED 12" TO 18" BELOW FINISHED SURFACE.

② RECLAIMED WATER PIPE SHALL BE PURBLE COLOR AND CODED INTEGRALLY TAMPED IN BLACK "CAUTION: RECLAIMED WATER – DO NOT DRINK".

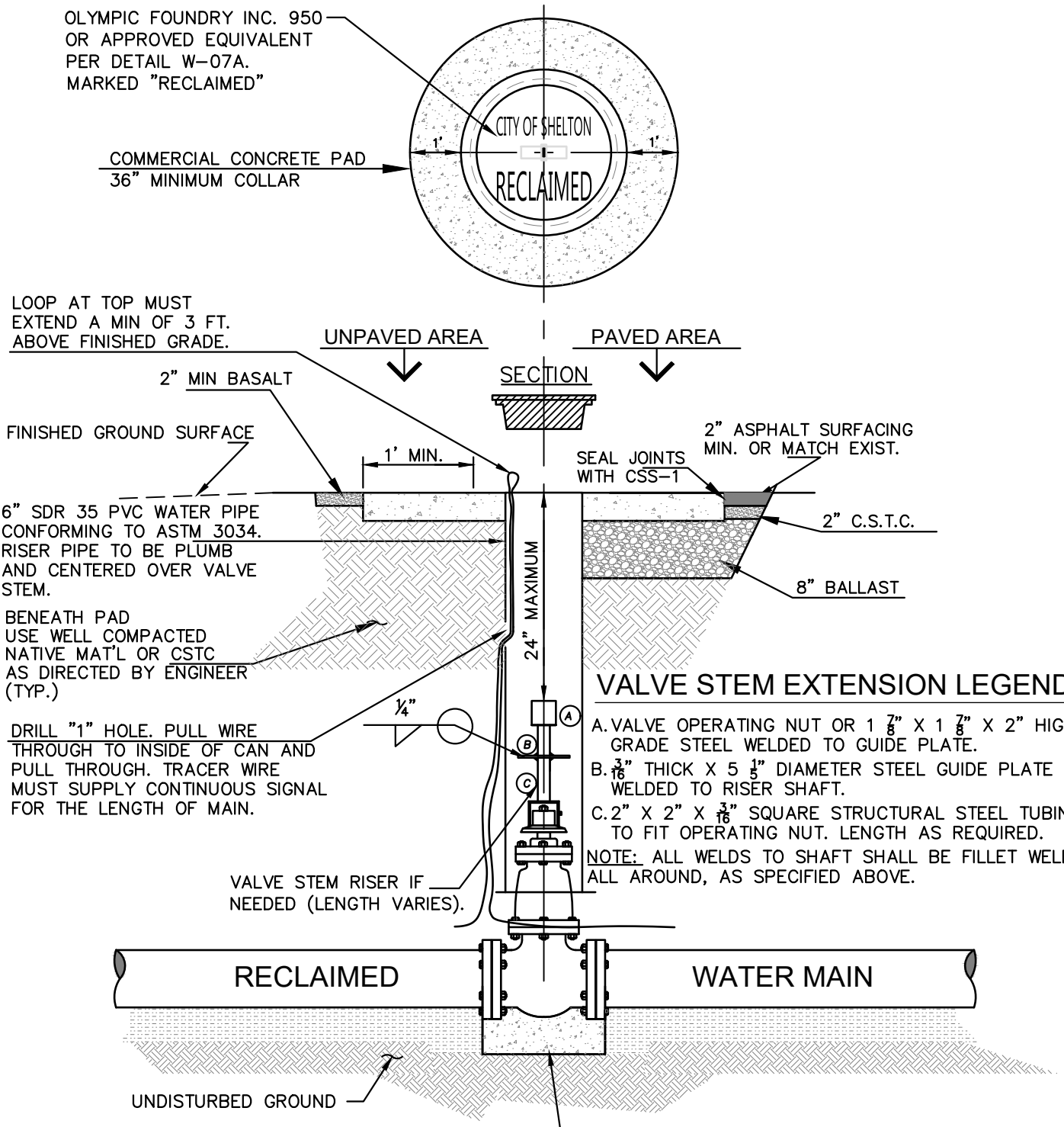
③ TRENCH DETAILS SHALL BE PER SHELTON STANDARDS.

"Building A Stronger Community TOGETHER"

HORIZONTAL & VERTICAL SEPARATION OF RECLAIMED WATER & OTHER PIPING

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-02



VALVE STEM EXTENSION LEGEND:

A. VALVE OPERATING NUT OR 1 $\frac{7}{8}$" X 1 $\frac{7}{8}$" X 2" HIGH GRADE STEEL WELDED TO GUIDE PLATE.

B. $\frac{3}{16}$" THICK X 5 $\frac{1}{5}$" DIAMETER STEEL GUIDE PLATE WELDED TO RISER SHAFT.

C. 2" X 2" X $\frac{3}{16}$" SQUARE STRUCTURAL STEEL TUBING TO FIT OPERATING NUT. LENGTH AS REQUIRED.

NOTE: ALL WELDS TO SHAFT SHALL BE FILLET WELD ALL AROUND, AS SPECIFIED ABOVE.

NOTES:

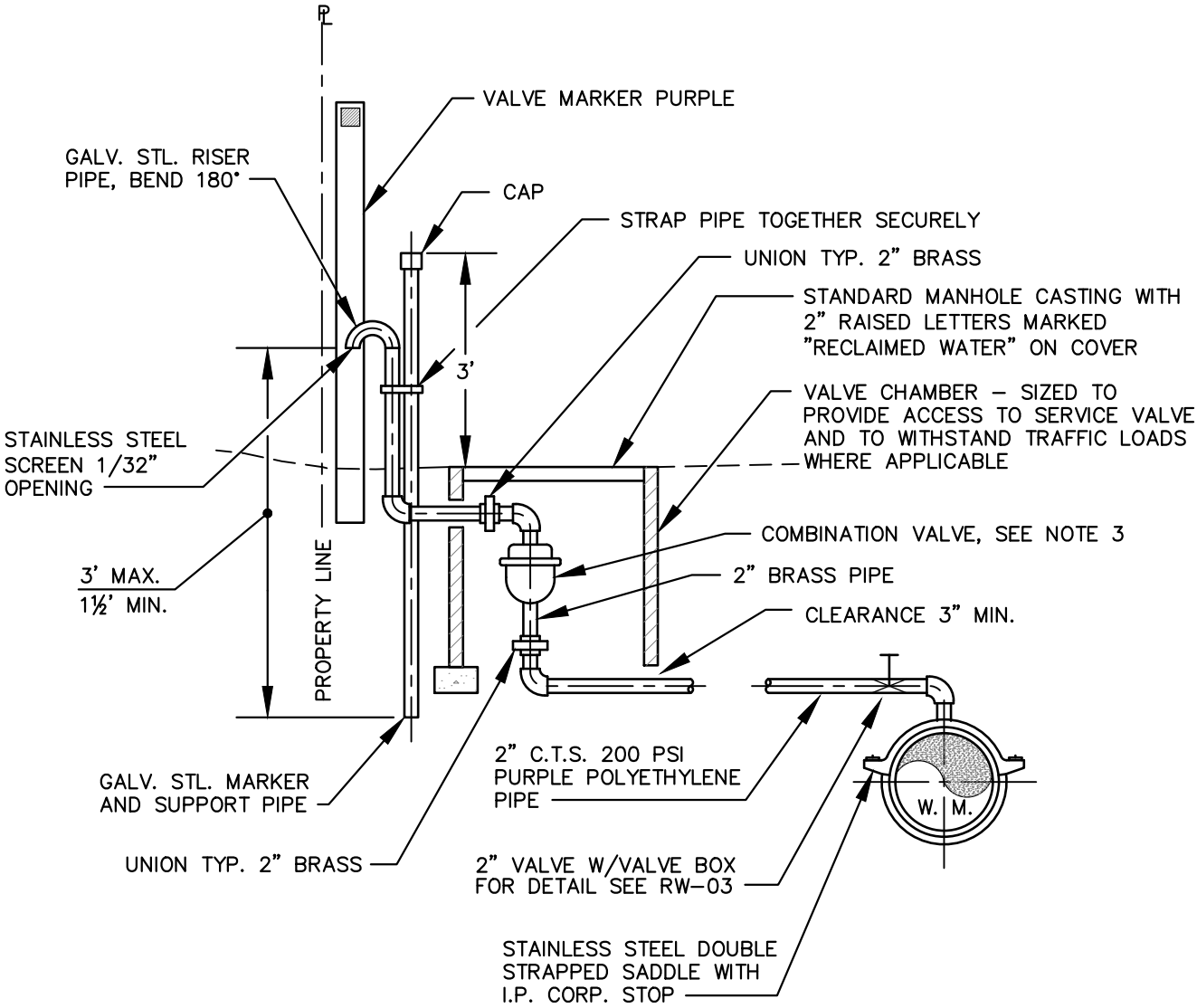
1. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN TWO (2) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG ONLY.
2. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL. SIZED AS NOTED, AND PAINTED WITH TWO (2) COATS OF METAL PAINT.
3. IF EXTENSION IS NEEDED, USE 6" SDR 35 PVC WATER PIPE CONFORMING TO ASTM 3034.
4. A SQUARE CONCRETE PAD PROVIDING A 1' MINIMUM COLLAR AROUND THE VALVE MAY BE USED INSTEAD OF A CIRCULAR PAD. SEE DETAIL W-07A.
5. PIPE, MANHOLE, VALVE BOX & LID TO BE PAINTED REQUIRED PURPLE (PANTONE 512 OR PANTONE 522).

"Building A Stronger Community TOGETHER"

RECLAIMED WATER VALVE & VALVE BOX

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-03



NOTES:

1.. IF NOT SPECIFIED, SIZE OF PIPE SHALL BE SUBMITTED TO THE CITY FOR APPROVAL.

2. SUBMIT SHOP DRAWINGS OF VALVE CHAMBER FOR APPROVAL.

3. COMBINATION A.V./A.R. VALVE SHALL BE APCO 143C, 145C, 147C,149C OR EQUAL AS DICTATED BY SIZE OF WATER MAIN. SUBMIT CALCULATIONS TO THE CITY FOR APPROVAL.

4. ALL RIGID PIPE AND FITTINGS BELOW AIR RELIEF PIPE SHALL BE US MADE BRASS.

5. ACTUAL PIPE SIZES ARE DEPENDENT ON VALVE SIZE.

6. PAINT ALL PARTS PURPLE.

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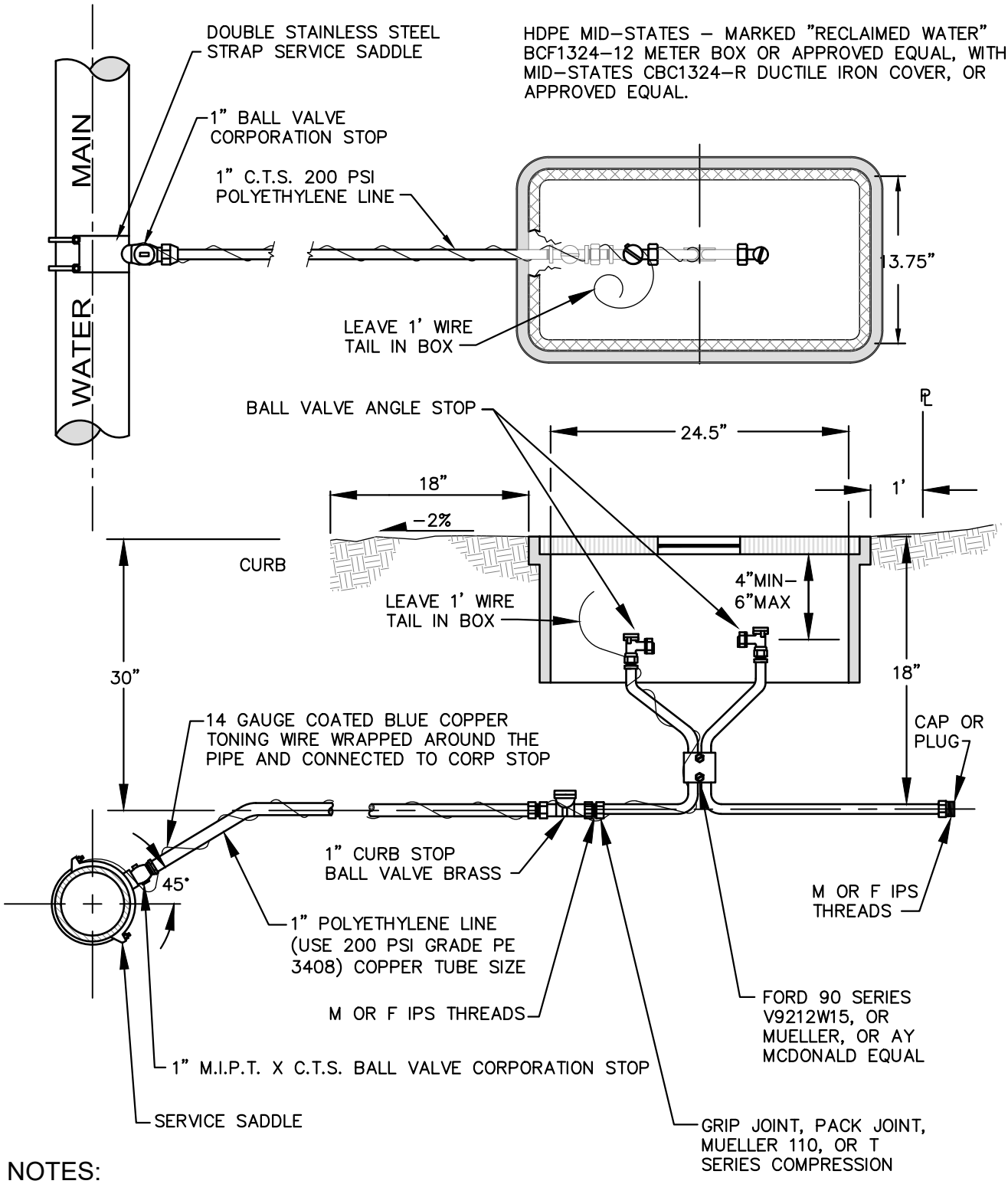
RECLAIMED WATER COMBINATION AIR VACUUM/ AIR RELEASE VALVE

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-04



NOTES:

1. CORPORATION STOPS SHALL BE ALL U.S. BRASS AND SHALL BE FORD D, MUELLER, OR MCDONALD, WITH THREADS CONFORMING TO AWWA C800. STAINLESS STEEL INSERTS REQUIRED FOR ALL PACK JOINTS OR GRIP JOINTS.
2. SETTER SHALL BE CENTERED IN BOX.
3. ALL SERVICE SADDLES SHALL HAVE RUBBER GASKET, I.P. THREADS, AND STAINLESS STEEL DOUBLE STRAPS. TORQUE TO MANUFACTURES REQUIRED SPECIFICATIONS.

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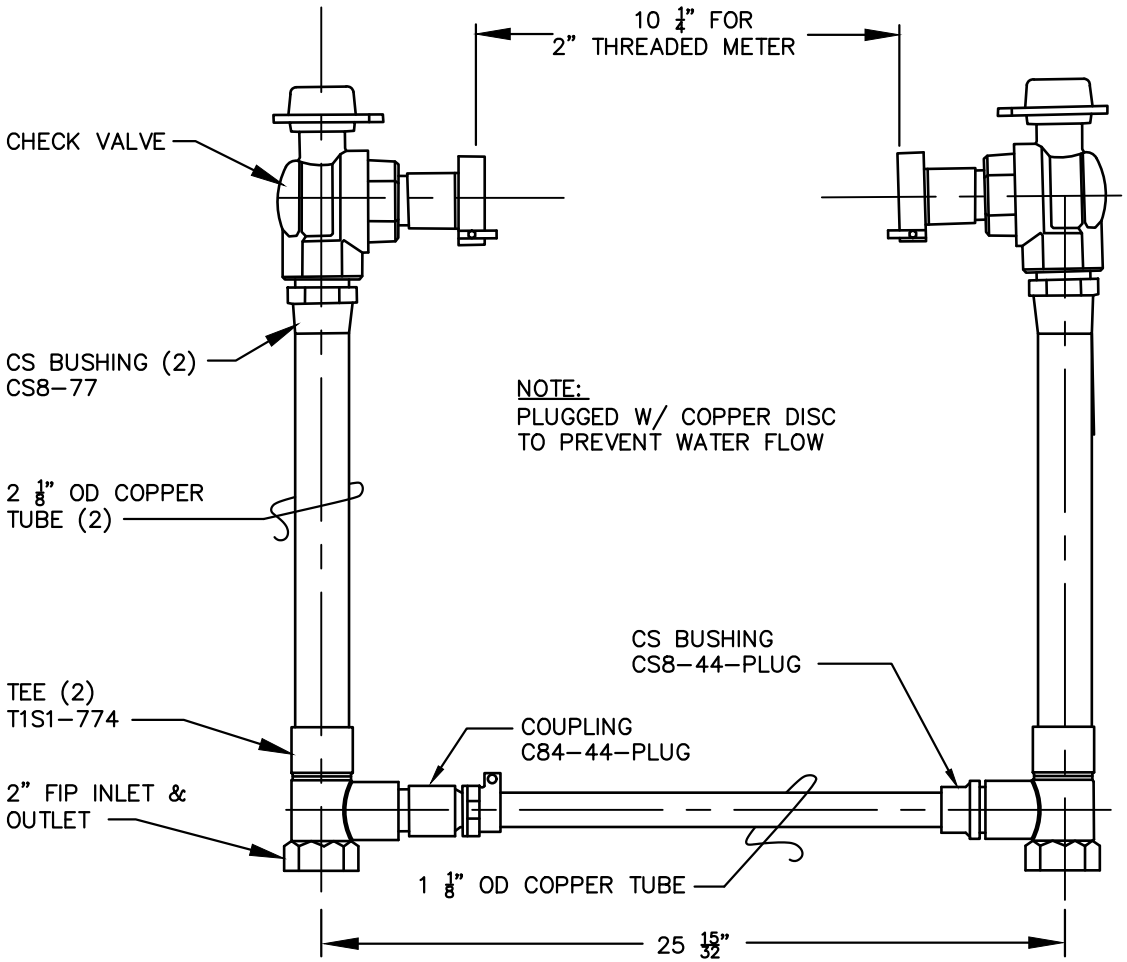
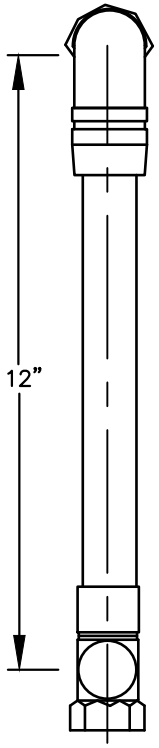
RECLAIMED WATER SETTER 1" DIAMETER

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-05





ALL BRASS OF
85-5-5-5 RED BRASS
UNS C83600 AWWA
C800-01 ASTM
B62-93

NOTES:

1. USE FORD VBRWH87-12-11-7710 OR APPROVED EQUAL FOR 1 1/2" AND 2" SETTERS.
2. PAINT ALL PARTS PURPLE

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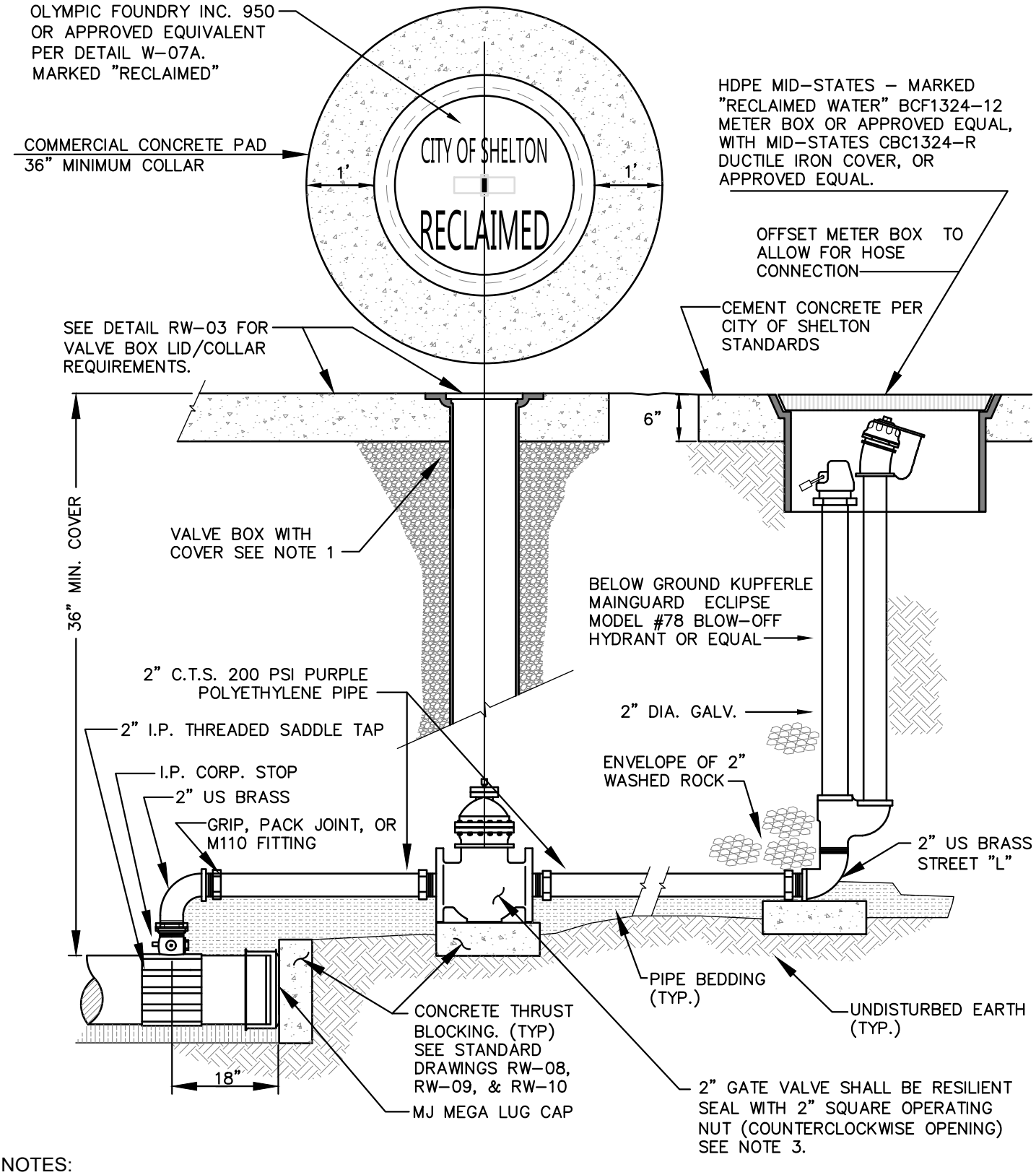
RECLAIMED WATER SETTER 2" DIAMETER

APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-06



NOTES:

1. VALVE BOX AND COVER SHALL BE PER VALVE BOX STANDARD DRAWINGS RW-03.
2. LOCATE BLOWOFF HYDRANT OUTSIDE ROADWAY, LOCATE VALVE WITHIN ROADWAY.
3. ON RECLAIMED MAINS WHICH WILL BE EXTENDED IN THE FUTURE, THE VALVE WHICH OPERATES THE BLOWOFF ASSEMBLY SHALL BE THE SAME SIZE AND PROVIDED WITH A CONCRETE THRUST BLOCK.
4. PIPE, MANHOLE, VALVE BOX & LID TO BE PAINTED REQUIRED PURPLE (PANTONE 512 OR PANTONE 522).

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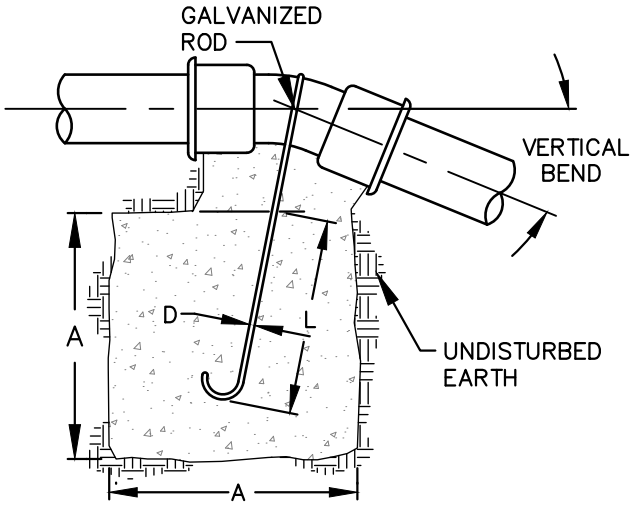
RECLAIMED WATER BLOW-OFF ASSEMBLY INSTALLATION

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-07

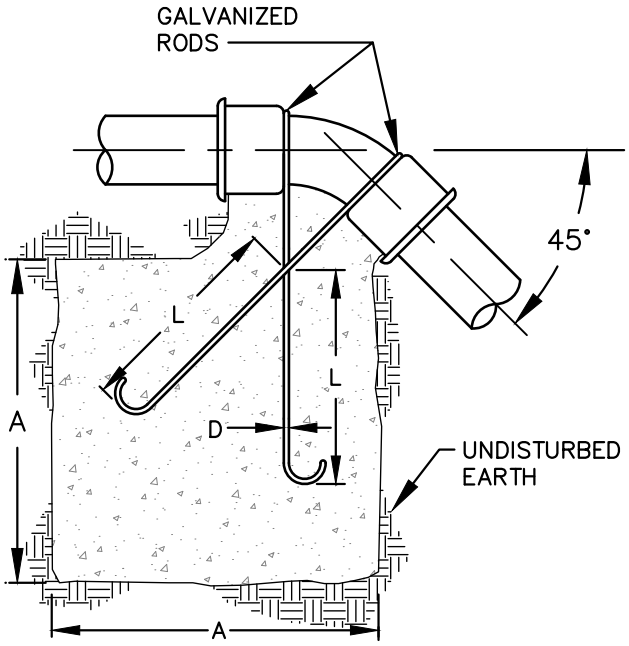
VERTICAL BLOCKING FOR 11 1/4° – 22 1/2° – 30° BENDS					
PIPE SIZE	VERT. BEND	GU FT.	A	D	L
4"	11 1/4°	8	2.0'	3/4"	1.5'
	22 1/2°	11	2.2'		2.0'
	30°	17	2.6'		
6"	11 1/4°	11	2.2'	3/4"	2.0'
	22 1/2°	25	2.8'		
	30°	41	3.5'		
8"	11 1/4°	16	2.5'	3/4"	2.0'
	22 1/2°	47	3.5'		
	30°	70	4.1'	3/4"	2.5'
12"	11 1/4°	32	3.2'	3/4"	2.0'
	22 1/2°	88	4.5'	7/8"	3.0'
	30°	132	5.1'		
16"	11 1/4°	70	4.1'	7/8"	3.0'
	22 1/2°	134	5.7'	1 1/3"	4.0'
	30°	275	6.5'	1 1/4"	
20"	11 1/4°	91	4.5'	7/8"	3.0'
	22 1/2°	225	6.1'	1 1/4"	4.0'
	30°	330	6.9'	1 3/8"	4.3'
24"	11 1/4°	128	5.0'	1"	3.5'
	22 1/2°	320	6.8'	1 3/8"	4.5'
	30°	480	7.0'	1 3/8"	5.5'



VERTICAL BLOCKING FOR 11 1/4° - 22 1/2° & 30° BENDS

NTS

VERTICAL BLOCKING FOR 45° BENDS					
PIPE SIZE	VERT. BEND	GU FT.	A	D	L
4"	45°	8	2.0'	3/4"	1.5'
6"	45°	11	2.2'		2.0'
8"	45°	17	2.6'		
12"	45°	11	2.2'	3/4"	2.0'
16"	45°	25	2.8'		
20"	45°	41	3.5'		
24"	45°	16	2.5'	3/4"	2.0'



VERTICAL BLOCKING FOR 45° BENDS

NTS

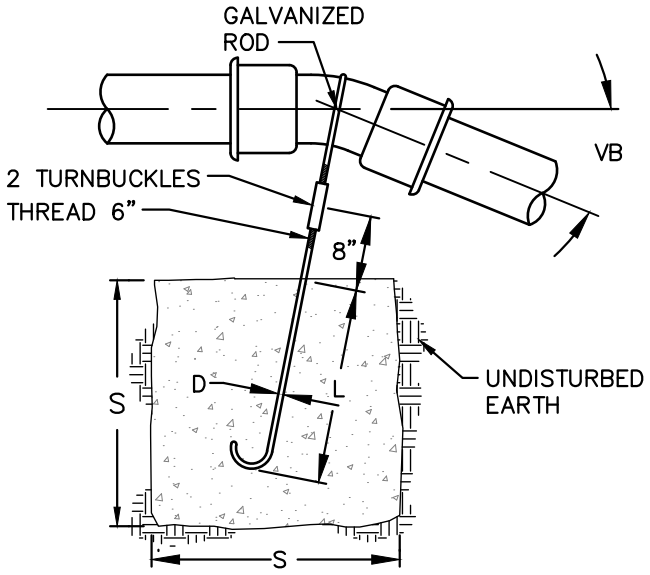
"Building A Stronger Community TOGETHER"

RECLAIMED WATER VERTICAL THRUST BLOCKING

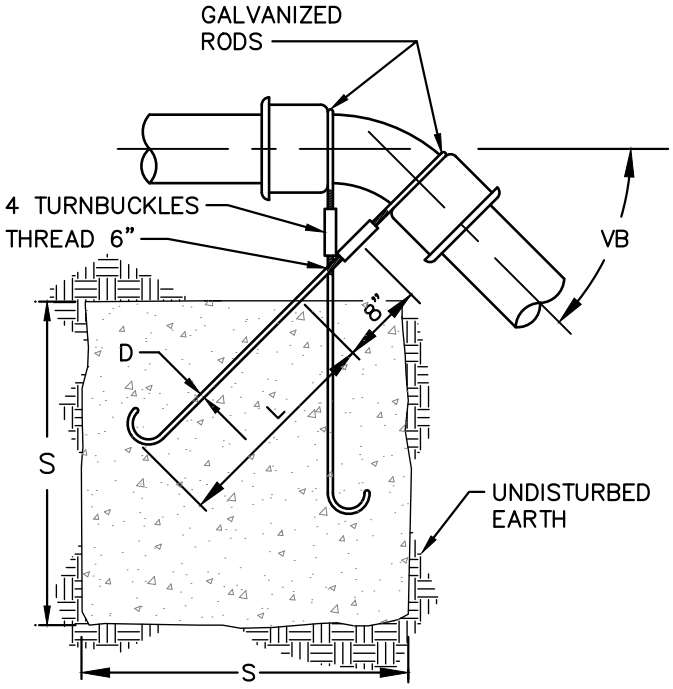
APPROVED: CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-08

TYPE "A" BLOCKING FOR 11 1/4° – 22 1/2° – 30° BENDS						
		VB		S	D	L
PIPE SIZE NOM. DIAMETER INCHES	TEST PRESSURE PSI	VERTICAL BEND DEGREES	NO. OF CU CT OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACKLE RODS (4) INCHES	DEPTH OF RODS IN CONCRETE FEET
4	300	11 1/4°	8	2.0	3/4	1.5
		22 1/2°	11	2.2		2.0
		30°	17	2.6		
6	300	11 1/4°	11	2.2	3/4	2.0
		22 1/2°	25	2.9		
		30°	41	3.5		
8	300	11 1/4°	16	2.5	3/4	2.0
		22 1/2°	47	3.6		
		30°	70	4.1		2.5
12	250	11 1/4°	32	3.2	3/4	2.0
		22 1/2°	88	4.5		3.0
		30°	132	5.1		
16	225	11 1/4°	70	4.1	7/8	3.0
		22 1/2°	148	5.3	1 1/8	4.0
		30°	275	6.5	1 1/4	
20	200	11 1/4°	91	4.5	7/8	3.0
		22 1/2°	225	6.1	1 1/4	4.0
		30°	330	6.9	1 3/8	4.3
24	200	11 1/4°	128	5.0	1	3.5
		22 1/2°	320	6.8	1 3/8	4.5
		30°	480	7.9	1 5/8	5.5



VERTICAL BLOCKING
FOR 11 1/4° - 22 1/2° & 30° BENDS
NTS



CLASS 3000 CONC.
(OR COMMERCIAL)
NTS

TYPE "B" BLOCKING FOR 45° BENDS						
		VB		S	D	L
PIPE SIZE NOM. DIAMETER INCHES	TEST PRESSURE PSI	VERTICAL BEND DEGREES	NO. OF CU CT OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACKLE RODS (4) INCHES	DEPTH OF RODS IN CONCRETE FEET
4	300	45°	30	3.1	3/4	2.0
6	300	45°	68	4.1	3/4	2.0
8	300	45°	123	5.0	3/4	2.0
12	250	45°	232	6.1	3/4	2.5
16	225	45°	478	7.8	1 1/8	4.0
20	200	45°	560	8.2	1 1/4	4.0
24	200	45°	820	9.4	1 3/8	4.5

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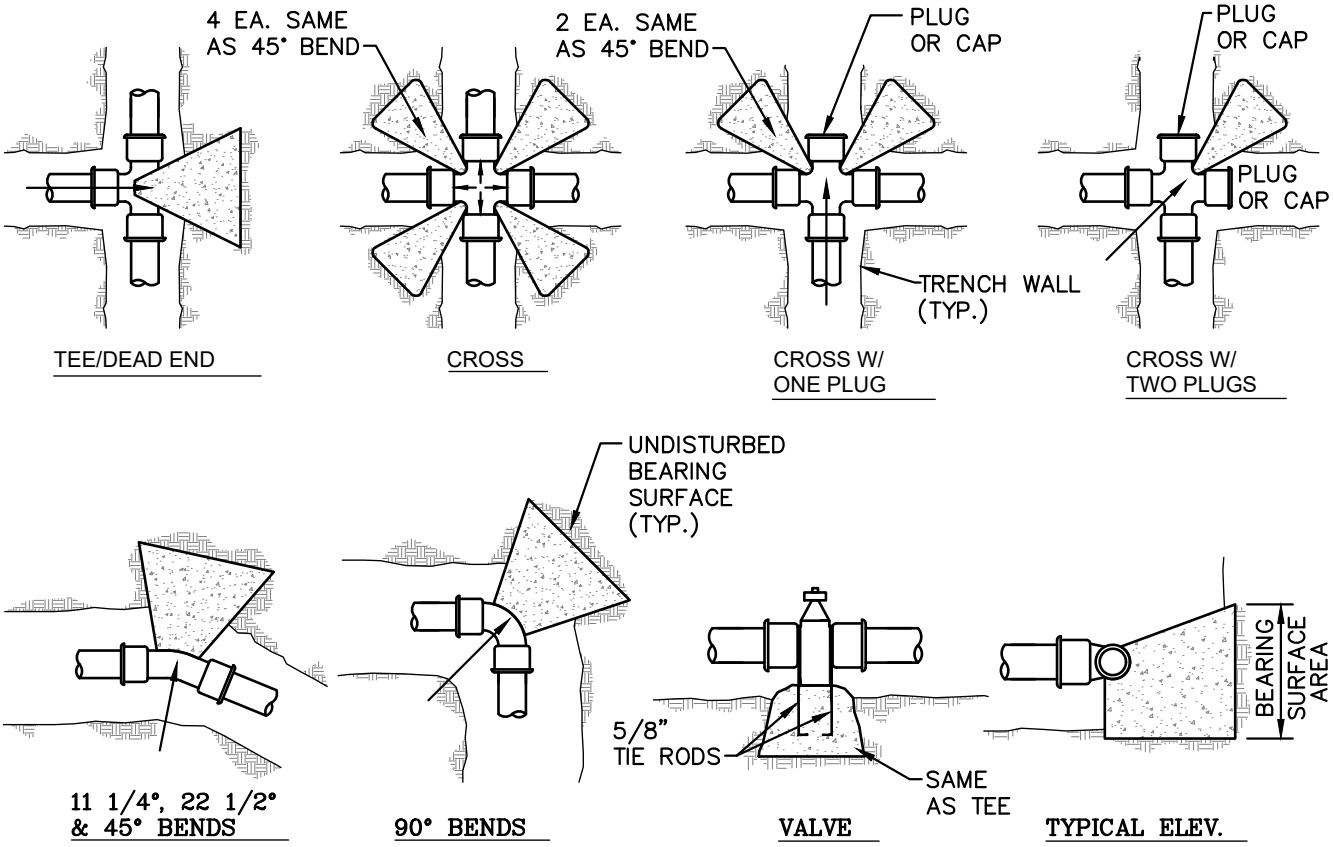
RECLAIMED WATER ALTERNATE VERTICAL THRUST BLOCKING

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-09



TYPES OF CONCRETE BLOCKING

NTS

TABLE A

THRUST (IN LBS.) PER PSI OF WATER PRESSURE AT VARIOUS FITTINGS

PIPE SIZE	BENDS				TEES DEAD ENDS
	11 1/4°	22 1/2°	45°	90°	
4	3	7	13	24	17
6	7	15	29	53	38
8	13	26	51	95	67
10	21	41	80	148	105
12	30	60	115	213	150
14	40	80	157	290	205
16	52	104	205	378	267
18	66	132	259	479	338
20	82	163	320	591	418
24	118	235	461	851	602

TABLE B

ALLOWABLE BEARING PRESSURE FOR SOILS TYPES

SOIL TYPE	BEARING PRESSURE LBS./SQ. FT.
PEAT OR MUCK	0
ALLUVIAL SOIL	1,000
SOFT CLAY	2,000
SAND	4,000
SAND & GRAVEL	6,000
SAND & GRAVEL W/CLAY	8,000
SHALE	12,000
ROCK	20,000

NOTES

TABLE "A" SHOULD BE USED WITH THE MAXIMUM PRESSURE ANTICIPATED FOR HYDROSTATIC TEST PRESSURE OR SURGE PRESSURE. (WORKING PRESSURE TIMES 1.33)

IN ABSENCE OF A SOILS REPORT, AN AVERAGE SOIL (SOFT CLAY) WITH AN ASSUMED VALUE OF 2,000 PSF BEARING STRENGTH (FROM TABLE "B") MAY BE USED.

CONCRETE FOR THRUST BLOCKING SHALL BE CLASS 3000 OR COMMERCIAL AT THE DISCRETION OF THE CONTRACTOR.

SHACKLE RODS SHALL BE ASTM A-36 WITH MINIMUM YIELD STRESS OF 36KSI (KIPS PER SQ. IN.) MINIMUM ROD DIAMETER SHALL BE 5/8".

NOTES IN FIGURES SUCH AS: "SAME AS 45° BEND" MEANS THE THRUST BLOCK VALUE SHALL BE THE SAME AS DETERMINED FOR A 45° BEND OF THE SAME SIZE.

EXAMPLE

REQUIRED BEARING SURFACE FOR A 90° BEND IN 8" LINER WITH MAXIMUM OPERATING PRESSURE OR TEST PRESSURE OF 200 PSI AND SOIL BEARING STRENGTH OF 2,000 PSF:

$\frac{\text{THRUST}}{\text{SOIL STRENGTH}}$ = BEARING AREA (SQ. FT.)

THRUST = 95(FROM TABLE) X 200 = 19,000 LBS

$\frac{19{,}000 \text{ LBS}}{2{,}000 \text{ PSF}}$ 9.5 SQ. FT. = AREA OF UNDISTURBED SOIL REQUIRED

"Building A Stronger Community TOGETHER"

RECLAIMED WATER HORIZONTAL THRUST BLOCKING

APPROVED:
CRAIG GREGORY
PUBLIC WORKS DIRECTOR

DATE:	BY:	SCALE:	DWG#
1/2019	GS	NTS	RW-10

Appendix 3E

COMPREHENSIVE PLANS

Excerpts from
City of Shelton Comprehensive Plan
November 2017

City of Shelton Comprehensive Plan

November 2017

City of Shelton Comprehensive Plan

City of Shelton
525 West Cota Street
Shelton, WA 98584
Contact: Jason Dose
Senior Planner
Office: (360) 432-5102
FAX: (360) 426-7746
Email: jason.dose@sheltonwa.gov

November 2017

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Supporting Plans and Documents

III. City of Shelton Forested Hillsides Strategy, November 1994

IV. Oakland Bay Action Plan, Mason County Public Health, August 16, 2007

V. City of Shelton Parks and Recreation Comprehensive Plan, 2008

VI. Mason County and City of Shelton Housing Needs Assessment, Common Ground, May 2003

VII. Housing Matters, 3 Year Housing and Homelessness Strategy for Mason County, Washington, Mason County Housing Coalition, December 2015

VIII. State of Washington Housing Needs Assessment, January 2015

IX. Shelton Industrial Lands Analysis, ECONorthwest, September 24, 2014

X. City of Shelton Water Comprehensive Plan and Appendices, May 2010

XI. City of Shelton Technical Memorandum Number 1, Water System Analysis for Urban Growth Area Expansion, Carollo and Associates, September 2016

XII. City of Shelton Water and Sewer System Year Capital Improvement Program 2018-2032

XIII. City of Shelton Comprehensive Sewer Plan Update and Appendices, November 2013

XIV. Correspondence from Ovivo USA regarding Satellite Wastewater Treatment Plant Capacity Upgrades, August 2017

XV. Shelton Area Water and Sewer Regional Plan, Gray and Osborne, November 2001

XVI. City of Shelton Inflow and Infiltration Facility Plan Update, 1997

XVII. City of Shelton Surface Water Drainage Utility Master Plan, Brown and Caldwell, October 1993

XVIII. City of Shelton Shoreline Master Program, May 2013 (Amended June 2017)

XIX. Sanderson Field Airport Master Plan Update, March 2010

XX. Shelton Critical Areas Ordinance Best Available Science Review and Recommendations for Code Update, prepared by Parametrix, August 2016

XVI. Shelton Comprehensive Plan Update and Urban Growth Area Expansion Draft Environmental Impact Statement, February 2017

XVII. Shelton Comprehensive Plan Update and Urban Growth Area Expansion Final Environmental Impact Statement, August 2017

VI. Capital Facilities and Utilities Element

INTRODUCTION

The City of Shelton owns and manages a number of public facilities that support the provision of services (such as fire, law enforcement, city buildings, parks facilities, and streets). In addition to the city-owned facilities, there are facilities owned and managed by special districts (such as schools) and facilities that are owned and managed by private entities (such as electrical, natural gas, and telecommunications). The GMA requires all Comprehensive Plans to include a capital facilities element that analyzes the future capital improvement needs and the funding mechanisms available for implementation in support of the development goals in the Land Use Element. Planning for capital facilities and utilities is a complex task and it requires understanding of future needs, assessing the various types of capital facilities that could be provided, and identifying the most effective and efficient array of facilities to support the needed services.

Projected growth from 2016-2036 is established in the Land Use Element, but an intermediate six-year growth figure is shown in Table VI-1 below for the purposes planning Capital Facilities and Utilities. Between 2010 and 2015 Shelton's growth rate was a little over 2%. This was likely related to lingering effects of the Great Recession. A slight increase in growth is assumed to occur over the six-year period 2016-2022 at approximately 3%. The majority of growth is assumed to occur after 2022. Shelton Hills and Goldsborough Heights will provide over 60% of the capacity for new residential growth, the first homes in those areas are unlikely to be constructed before 2022.

Table VI-1: Projected Population in Shelton and the UGA

2016	2022	2036
13,816	14,230	23,416

This element summarizes existing conditions and addresses future needs for capital facilities and utilities in Shelton and contains broad-based goals and specific policies that guide and implement the provision of adequate public facilities services. By analyzing the funding required to provide facilities for growth, and by funding projects needed to maintain level of service and concurrency, this element influences the quality of life in the community.

Capital Facilities and Growth

As the City of Shelton grows, necessary public facilities, infrastructure, and services need to be managed along with growth. Implementation of the land use plan must occur concurrently with the development of needed infrastructure. Capital facilities covered in this Element include municipal services and facilities, parks and recreation, police, fire and emergency services, schools, water, wastewater, stormwater, and solid waste. These capital facilities and utilities are considered necessary for growth. As provided in the Growth Management Act, Capital Facilities Plans are a required part of the Comprehensive Plan and are to provide capital facilities for land development that is envisioned or authorized by the Land Use Element. If there are funding shortfalls for necessary capital facilities and utilities and the City is not able

to meet adopted levels of service, the City may need to review its Land Use Element and its level of service standards to reassess its plan for 20-year growth.

Other utilities covered in this Element include electricity, natural gas, telecommunications, cellular communications, and cable television. Additional services that are important to Shelton residents, but owned and maintained by others include MACECOM, providing 911 emergency call services, Shelton Memorial Park Cemetery, and Mason General Hospital and Family of Clinics, providing health services. The availability of these utilities and facilities influence growth, but they are not considered necessary for development under the Growth Management Act. As such, the failure to fund these services does not require the city to reassess its land use plan.

Due to the interrelationship between land use, public facilities, and services, the Capital Facilities Element should be viewed as a vehicle for identifying and coordinating capital facility needs in a manner that maximizes the return to the community. Also, the Element is meant to coordinate and provide consistency among the other plans, including the Parks and Recreation, Transportation, and Land Use Elements of the Plan, various master plans, and other studies.

Capital Facilities and Level of Service

The principal criteria used in identifying needed capital improvements are adopted standards for level of service (LOS). LOS standards are a summary of existing or desired public service conditions and the process of setting the standards requires making quality of service decisions.

Each capital facility has been assigned a future LOS standard that is required to be maintained during the planning period. Concurrency requires that development not occur unless needed transportation facilities are adequate to insure LOS standards are not diminished and are provided at the time of the development or within six years (see transportation element). Other services necessary to support development are to be adequate at the time of development, including but not limited to water, sewer, stormwater, and fire protection.

Transportation Concurrency

Concurrency is essentially the balance between demand for, and the capacity of, capital facilities. The Growth Management Act (GMA) specifically defines being concurrent with development as "improvements or strategies that are in place at the time of development, or that show financial commitment is in place to complete the improvement or strategies within six years." The GMA requires that transportation facilities and services necessary to support new development and to maintain adopted LOS, at a minimum, must be available concurrent with development occupancy or use.

Concurrency is a central feature of the Capital Facilities Element. Under concurrency requirements, the level of service standards for transportation will influence the timing and location of development depending on what locations have existing transportation capacity or locations where needed facilities can't feasibly be provided. If level of service is reduced to within 90% of the adopted standard, the Concurrency Management System (SMC 17.07) will impose mitigation requirements and necessary sanctions to alleviate any further reduction for those facilities. The System consists of an annual report on LOS and capacity for public facilities, public facility capacity review of development applications, and

review of changes to planned capacity of public facilities. See the Transportation Element for more discussion regarding transportation.

Capital Facilities Financing and Revenue Sources

In planning for needed capital facilities, only certain improvements can be afforded. Competing demands requires coordination of the planned facilities and a thorough understanding of the fiscal capacity of the City to finance the facilities.

It is anticipated that the City will utilize some or all of the following methods to finance identified capital projects:

- General Funds
- Revenue Bonds
- Grant Funds
- General Obligation Bonds
- Developer Funds
- Local Improvement Districts
- Utility Funds
- Impact Fees
- Low Interest Loans

In 2017, Shelton expects to spend over two million dollars from the Capital Improvement Fund, mostly on street projects. The General Fund anticipates expenditures on minor repair and replacement capital projects, with no capacity related projects planned. Expenditures on water, sewer, and stormwater utilities are expected to remain stable at over $27 million with the City focused on paying down debts and maintaining existing facilities. The City currently only collects impact fees for transportation, but could consider the adoption of impact fees if needed to support growth-related improvements to capital facilities for parks, schools, or fire and emergency services.

CITY SERVICES AND CAPITAL FACILITIES

Municipal Services

Inventory

The Civic Center houses Administrative Services, City Commission, City Administrator, Public Works, Community and Economic Development Services, Municipal Court, and the Police Department. The City Shop houses field services and provides maintenance and operation services for all City public facilities. Table VI-2 shows the public buildings owned by the City of Shelton, as well as their location and size.

Table VI-2: Public Buildings

Facility	Location	Size (Sq Ft)
Civic Center	**525 W Cota Street**	**38,261**
Police		6,563
911 Communications		2,472
Municipal Court		3,766
Kiosk		180
Open Space		11,092
City Hall		5,231
Public Works/Community Development		5,469
Timberland Regional Library*	**710 W Alder Street**	**15,500**
City Shop	**1000 W Pine Street**	**16,629**
Fire Department	**122 W Franklin Street**	**14,580**
Wastewater Treatment Plant	**1700 E Fairmont Avenue**	**21,481**
Museum*	**427 W Railroad Street**	**3,220**
Animal Shelter	**902 W Pine Street**	**1,128**
Satellite WRP	**10891 US Hwy 101**	**8,150**
Storage House	**218 S 5th Street**	**980**
TOTAL		**119,929**

*The City owns the library and museum facilities, but they are run by the Timberland Regional Library District and the Mason County Museum, respectively.

Level of Service

The City of Shelton uses the Washington State Standards for public building space. The standards are based on square feet per 1,000 of population. Table VI-3 shows the Municipal LOS standards by service type. The City of Shelton will need a total of 57,458 square feet of public buildings for municipal services in order to meet their LOS standards in 2036. Including the Civic Center and the City Shop, there is currently 54,890 square feet of space, indicating a small deficit in public building space by 2036.

Table VI-3: Municipal LOS Standards

	LOS Standard (Sq ft per 1,000 population)*	2022 Need (Sq Ft)	2036 Need (Sq Ft)
Administrative Services	350	4,981	8,196
City Commission	173	2,462	4,051
City Administrator	100	1,423	2,342
Development Services	598	8,510	14,003
Field Services	135	1,921	3,161
Police Services	575	8,182	13,464
Emergency Community Services	188	2,675	4,402
Municipal Court	326	4,639	7,634
TOTAL	2,445	34,792	57,486
Available Space		54,890	54,890
Surplus / (Deficit)		20,098	(2,596)

* Washington State Standards converted to per 1,000

Space is adequate currently and in the 6-year planning period, and there is a small deficit at the 20-year period. At this time there are no capacity projects planned in the 20-year planning period. If that does not change, the City will reduce its LOS standards for the years 2023-2036 by about 5% to match the available space, as the LOS standard is a locally determined policy.

Planned Projects

The Civic Center currently provides space and facilities that meet the service needs. No capacity related projects are currently planned.

Revenue Analysis

Project-specific funding strategies are prepared for capital improvements projected to be necessary for public buildings. The strategies are included in annual budgets. The Real Estate Excise Tax 2 (REET 2) tax of one-quarter of one percent imposed on the selling price of real property in Shelton is dedicated to capital improvements.

Parks and Recreation

The City of Shelton currently has 40.27 acres of developed and undeveloped recreational facilities. In addition to the facilities owned and operated by the City of Shelton, the Shelton School District owns schools with recreational facilities. Mason County and various other agencies provide important facilities and programming in the community. The County is a provider of regional facilities including ball field complexes, water access, and nature parks.

The City of Shelton via the Shelton Metropolitan Park District is the primary provider of recreation programming in the community, offering adult sports, youth sports, fitness programs, and enrichment

activities. The Shelton Metropolitan Park District serves the Shelton City limits and was formed in May 2010. The District Board is comprised of the three-member City of Shelton Commission. In 2014 the District had approximately $335,000 in expenditures. The District contracts all of its services to the City of Shelton. (Washington State Auditor's Office, 2015)

Inventory

Current parks and recreation facilities are identified in Table VI-4.

Table VI-4: Shelton Metropolitan Park District: 2017 Parks and Recreation Facilities

Facility	Acres	Amenities	Address
Brewer Park	0.30	Picnic tables, mature vegetation	220 W. Franklin
Callanan Park	6.90	Ball field, play equipment, restroom, natural area, basketball court	400 W. E Street
City Park	1.75	Undeveloped site	Northcliff Rd.
Huff n Puff Trail	5.00	2 mile jogging trail on watershed	3600 Shelton Springs Rd
Johnson Park	0.50	Basketball court, mature trees	325 E. Poplar
Kneeland Park	3.90	Large play structure, picnic areas, restroom, horseshoes, open play area, landscaping	100 Turner Ave.
Loop Field	4.00	Ball field, athletic field, play structure, restroom, picnic shelter	1020 W. Franklin
Overlook Park	1.03	Historic marker overlooking downtown & mills	1200 Olympic Hwy S.
Post Office Park	0.07	Open space with gazebo and picnic tables	218 Reed Way
Vogtlin-Angle Park	1.00	Undeveloped site, open space	Railroad Ave.
Shelton Point/ SR3 Entry	6.00	Undeveloped site, open space	SR3 & Pine St.
Sixth St. Park	0.14	Picnic shelter, barbecues, creek	330 S. 6th St.
Catalyst Park	1.00	Community Garden	909 S. 8th St.
Skate Park	0.68	Skate park facility	Wallace Kneeland Blvd.
Eagle Point	8.00	Undeveloped site, open space, including some tidelands.	Walker Park Road
Total	**40.27**		

Source: Shelton Metropolitan Park District, 2016; City of Shelton 2007; BERK Consulting 2016.

Mason County has 40 acres of parks including sports fields and play areas in the UGA and 6.5 miles of trails. (Mason County Facilities, Parks, and Trails, 2013)

Planned Projects

The City recently completed a trails plan identifying trail goals, objectives, and improvements in the community, but deferring a level of service policy until a future parks plan update. Priority improvements included formalizing the Shelton Creek trail (recently performed by a group of Choice High School students), extending the Huff n Puff trail, linking neighborhoods to downtown, establishing water trail heads, and other improvements. (City of Shelton, 2013).

Major development is anticipated in the next 20 years in Shelton Hills and Goldsborough Heights. 16.5 acres of new parks are anticipated to be added in Shelton Hills, as documented in the Shelton Hills EIS and Planned Action. Another 10 acres could be developed as part of Goldsborough Heights.

Level of Service

The 2008 City of Shelton Comprehensive Parks and Recreation Plan (2008 Plan) established the LOS standard for park and recreational facilities at five acres per 1,000 population. The effective LOS as of 2016 is 4.0 acres per 1,000 population based on a population of 10,070 and the City's 40.27 acres of parks, indicating a deficit compared to the 5-acre standard. Considering the City and UGA together in 2016, the population is 13,816 served by a combined 80.27 acres, or effectively 5.81 acres per 1,000 population, which meets the LOS standard.

Under the 5.0 LOS standard, there would be a deficit of parks in the 20-year planning period. This deficit is likely to be reduced by the inclusion of new parks in the Goldsborough Heights development area, where significant new growth is planned. As grants and other funding become available in the next 20-years, the City could potentially eliminate this anticipated deficit. However, if this is not possible, the City could adopt an LOS consistent with its effective LOS within city limits (4.0) as a base LOS and the 5-acre policy as a target LOS that is dependent on additional funding.

The City of Shelton parks department is currently updating the 2008 Comprehensive Parks and Recreation Plan and is adopted in this Comprehensive Plan by reference. The policies referenced in the Parks Plan have been incorporated into this Comprehensive Plan in the Parks and Recreation Element.

Table VI-5: Parks LOS Analysis

LOS Standard	Population (2016)	2016 Parks Acres	2016 LOS Needed	Surplus / Deficit in 2016	2022 Population	2022 LOS Needed	Surplus/Deficit in 2022	2036 Population	2036 LOS Needed (acres)	2036 Projected Parks (acres)*	Surplus / Deficit in 2036
Established LOS City Limits (5 acres per 1000)	10,070	40.27	50.35	(10.08)	--	--	--	--	--	--	--
Established Shelton LOS City and UGA (5 per 1,000)	13,816	80.27	69.08	11.19	14,230	71.15	9.12	23,416	117.08	96.77	(20.31)

Source: City of Shelton, 2007; Mason County Facilities, Parks, and Trails, 2013; BERK Consulting, 2016.

Note: Includes Shelton Hills Parks in 2036. If Goldsborough Heights is added to the City's UGA and planned as anticipated in the Comprehensive Plan EIS, another 10 acres of parks could be added, which would further reduce park deficits but not eliminate them.

Revenue Analysis

A voter approved property tax levy for parks is the single source of revenue for the Shelton Metropolitan Park District in 2017. Around $285,000 in revenues is expected in 2017, which are expected to be used for operations and maintenance.

Funding for trail development identified in the 2013 Trails Plan comes from the City Budget, Shelton Metropolitan Park District Budget, federal and state grants, and in-kind donation of materials and labor. Additional support comes in the form of financial or property donations, conservation or trail easements, or bequests. The development of park facilities in the Shelton Hills and Goldsborough Heights areas will be part of the Planned Unit Development approvals, financed through those developments.

Police

Inventory

Police services within the City of Shelton are provided by the City of Shelton Police Department (SPD). The SPD is located within City Hall (525 W Cota Street); 6,563 square feet of building space is dedicated for the SPD. The SPD currently employs 18 commissioned officers to serve the City of Shelton's 6.11 square miles. SPD maintains a fleet of 23 police vehicles ((City of Shelton, 2013); (Shelton Police Department, 2015)). Total calls for service in 2014 were 10,376, an increase over 2013 at 9,855 and 2012 at 9,557.

The Shelton Animal Shelter facility is also operated by the police department with 2 paid staff per day. The Shelter is located at 10th and Pine Streets adjacent to the City Shop. There is a total of 1,040 square feet of space for the office, storage, and kennels. There is a maximum holding capacity of 12 animals in individual kennels.

Level of Service

In the 2007 Comprehensive Plan, the following levels of service were reported:

- Building space: 553 sq. ft. per 1,000 population.
- Calls per 1,000 population: 1,348 calls.

Animal shelter space is not part of the adopted LOS. The effective LOS of 75 sq. ft. per 1,000 population is addressed below.

Table VI-6 shows the LOS analysis for building space for police facilities and the animal shelter. The analysis indicates in 2016, 2022, and 2036, additional police facilities will be needed and in 2022 and 2036 additional animal shelter facilities will be needed.

Table VI-6: Police Building Level of Service Analysis

	Population	Pop/1000	Police Space Demand	Deficit/Surplus	Animal Space Demand	Deficit/Surplus
2016	13,816	13.82	7,643	(1,080)	1,040	0
2022	14,230	14.23	7,869	(1,306)	1,067	(27)
2036	23,416	23.42	12,951	(6,415)	1,757	(717)

Source: BERK Consulting 2016

The identified level of service for calls was 1,348 calls per 1,000. Based on a 2016 population of 10,070, the current LOS of calls per 1,000 population is 1,030 calls per 1,000 population; the standard is currently met.

Current service levels for police call volumes are being met. As the population or service area grows, call volumes are anticipated to increase.

As the primary provider of police services, the Shelton Police Department will require additional staff and facilities to maintain the high quality of service for the future population. The future increased population and UGA territory when annexed will generate more calls and decrease the response times if new personnel and supporting facilities are not available to meet those needs.

Planned Projects

There are no planned capacity projects for police services.

Revenue Analysis

Deficits in space and offices may occur in the 6- and 20-year planning periods, though in the 6-year period deficits are small. If the City does not have planned capital projects, it may choose to lower the

level of service, or phase the level of service over time to allow a project-specific funding strategy for needed capital improvement projects.

Fire and Emergency Services

The current Shelton UGA is served by four districts.

- District 5 serving the city limits and the northeast UGA along Johns Prairie Road;
- District 11 serving the northern UGA around Island Lake and the airport, as well as areas south of Goose Lake;
- District 16 serving the western UGA around the Matlock Road and SR 101 vicinity; and
- District 4 serving a small southern UGA along SR 3.

This CFP focuses on District 5 and District 11 that serve the lion share of the Shelton city limits and UGA.

District 5

The City of Shelton is contracted with Central Mason Fire and EMS (CFME) for Fire Services. CMFE protects about 157 square miles in central Mason County and the City of Shelton under an inter-local agreement. (Central Mason Fire & EMS, 2014).

The District has both full time commissioned and volunteers:

- Chief – 1
- Assistant Chief Operations – 1
- Assistant Chief/Fire Marshal – 1
- Battalion Chiefs – 3
- Clerical Staff – 2
- Maintenance – 1
- Paramedics – 12
- Emergency Medical Technicians (EMT) – 13
- Volunteers – 40

The district has the following apparatus:

- Medic Units (Advanced Life Support (ALS)) – 4
- Aid Units (Basic Life Support (BLS)) – 3
- Engines – 9
- Tenders – 3
- Rescue – 1
- Brush Units – 2
- Command Cars – 6
- Specialty Units – 6

District 11

The northern UGA around Island Lake and the airport, as well as city limit areas south of Goose Lake including Shelton Hills, is served by Fire District 11.

District 11 has a full-time paid Fire Chief and 12 volunteers that are paid on-call/stipends. About 9 of the 13 firefighters are certified emergency medical technicians. The staff provides fire protection to approximately nine square miles of unincorporated area. (Mason County Fire District 11, 2016).

Inventory

Shelton city limits and the northeastern UGA are served out of a downtown Shelton station (Fire Station 58) which was built by the City and completed in January 2011. The station is located at 122 West Franklin Street and is 14,580 square feet. Fire Station 58 is owned by the City and operated by CFME.

District 11 operates from one station just north of the Shelton city limits. Fire District 11 has the following apparatus: engine, tender, brush (2), aid car, and command vehicle. (Mason County Fire District 11, 2016).

Level of Service

The current level of service in the Shelton Comprehensive Plan is to maintain a Level 5 Insurance Service Office rating; this was set with the former City Fire Department.

The Central Mason Fire and EMS district has a qualitative level of service standard:

- Be a proactive leader in firefighting with well-trained personnel, and programs of aggressive firefighting, fire prevention, and public education.
- Be a leader in Mason County in EMS innovation committed to professional development of its members.
- Provide advanced life support, basic life support, ambulance transport, and rescue services to the citizens.
- Foster a safe working environment.
- Be an organization recognized for its caring and high quality service.
- Be an organization held in high esteem and enthusiastically supported by the community.
- Be the leading resource for a safer community.
- Be a team that provides efficient and effective response, prevention, public education, and communication services whose members are effective, empowered, and enthusiastic (Central Mason Fire & EMS, 2014).

While the Department does not have a quantitative LOS standard, they do track average response times for the Department and individual stations. In 2012, the average response time for Central Mason Fire and EMS was approximately 12.67 minutes, while the average response time for Fire Station 58 was approximately 5.90 minutes. (City of Shelton, 2013).

In 2013 Central Mason Fire & EMS responded to 4,407 calls for service regarding fire protection and EMS services including patient transport, and both advanced life support (ALS) and basic life support (BLS). This includes 2,210 calls for service inside the City of Shelton. (Central Mason Fire & EMS, 2014).

FD 11 responded to 703 emergency calls in 2015, and about 337 were mutual aid responses. (Mason County Fire District 11, 2016). FD 11 strives to maintain a high level of interoperability with its neighboring departments to include compatible procedures, accountability systems, training and equipment. They have an interlocal agreement with Central Mason Fire to ensure coordination of service.

Planned Projects

As Shelton grows in population and size (through annexation of land in the UGA), there will be greater demands placed on the Fire District. Longer term plans will require more intensive studies to determine the best placement of new facilities to serve Shelton's residential, industrial, and commercial areas.

The Shelton Hills Planned Action identifies that, if necessary, a suitable parcel could be dedicated on the Shelton Hills site for a potential future fire station, if required by the City of Shelton and Central Mason Fire and EMS (FD 5). This would be land provided by a developer.

Fire District 11 does not have any planned projects at this time.

Revenue Analysis

Projects related to the fire station facility associated with FD 5 are funded by the City's General Fund, or using other sources to close funding gaps. A 2013 property tax levy lid lift funds operation and maintenance expenses. A project-specific funding strategy will be prepared for future capital improvements.

Schools

The Shelton School District serves the city and unincorporated UGA as well as large areas of the County beyond. The district provides services for over 4,000 students and includes three K-5th grade elementary schools, one 6th-7th grade middle school, one 8th-9th junior high school, one 10th-12th grade high school, and one alternative school. Additionally, students from Hood Canal, Pioneer, and Southside all attend Shelton High School since those districts do not have all grade levels. (Shelton School District, 2016)

Inventory

The Shelton School District's inventory of facilities consists of those identified in Table VI-7.

Table VI-7: Shelton School District Facilities

Name	Grades Served	Location	Capacity
Bordeaux Elementary School	K-5	350 E University Ave	462
Evergreen Elementary School	K-5	900 W Franklin Street	561
Mountain View Elementary School	K-5	543 E "K" Street	489

Olympic Middle School	6-7	800 E "K" Street	655
Oakland Bay Junior High	8-9	3301 Shelton Springs Road	597
Shelton High School	10-12	3737 Shelton Springs Road	1,314
CHOICE Alternative School	K-12	807 W Pine Street	148

Source: Shelton Hills Draft EIS, 2013.

Level of Service

The District served 4,234 students as of May 2015. There were 273 classroom teachers. That is approximately 15.51 students per classroom teacher. The projected enrollment for the year 2021 is 4,455. (State of Washington Office of the Superintendent of Public Instruction, 2016) Future growth will increase the demand for services and need for classrooms at the target level or above (see the Comprehensive Plan Update EIS for more information).

The 2014 Initiative 1351 is under implementation and requires reduced class size standards and state funding for increased staffing allocations to be in place by the 2017 – 2019 biennium. The resulting standards require classroom sizes of between 16 and 25 students, depending on the grade. This is down from classroom size requirements between 22.76 and 28.74, depending on the grade.

The Shelton School District Capital Facilities Plan is adopted by reference.

Planned Projects

State funding for capital projects is based on the Office of Superintendent of Public Instruction (OSPI) enrollment projections. Overall district enrollment is expected to increase by about 5 percent between 2015 and 2021. In order to satisfy long-term demand for permanent facilities, the District's capital improvement program must accommodate the conversion of portables into permanent facilities.

The Shelton School District recently passed a bond measure in February of 2017 which will allow for expansion of Shelton High School, a new (replacement) for Mountain View Elementary School, and facility and technology upgrades at all other district schools. Further, the School District is planning on restructuring the middle and high schools to return to a 9-12 High School. This will help free up space at the other schools following expansion at Shelton High School as a result of the passing bond measure.

The Shelton Hills Planned Action includes land that will be set aside for a potential elementary school site, according to the mitigation listed in the Environmental Impact Statement and Planned Action.

Revenue Analysis

The Shelton School District receives funding from the state and has the ability to levy bonds, based on it its bond indebtedness.

Water

The City of Shelton currently provides water service to customers within the City of Shelton, as well as a limited portion of the Shelton UGA on an emergency basis. In 2002, the City adopted the Shelton Water System Comprehensive Plan, and in 2005 completed a Water Comprehensive Plan Amendment and

Project Report for the Shelton Area Regional Water System; the Shelton Water System Comprehensive Plan was updated in 2010 and is currently undergoing a comprehensive update as of the writing of this plan. In 2016 Carollo also conducted a system analysis to examine future needs related to Urban Growth expansion. These plans and studies provide recommendations to improve the existing facilities, meet future supply needs, and ensure compliance with water quality regulations for the 6-year and 20-year planning periods for water service in the City of Shelton. The most recent iteration (2010) of the Shelton Water System Comprehensive Plan is incorporated into this Comprehensive Plan by reference.

It should be noted that a retail service area is the area where a municipal water supplier (Shelton in this case) has a duty to serve new service connections under certain conditions. The retail service area includes the existing service area and areas where new service is planned. According to RCW 43.20.260, municipal water suppliers have a duty to provide service to new customers within their retail service area if the following four threshold factors are met:

1. The municipal water supplier has sufficient capacity to serve water in a safe and reliable manner.
2. The service request is consistent with adopted local plans and development regulations.
3. The municipal water supplier has sufficient water rights to provide service.
4. Service can be provided in a timely and reasonable manner.

The Upper Mountain View Reservoir was recently constructed and will increase water storage capacity within the Mountain View Water Pressure Zone. It established a new pressure zone (the Upper Mountain View Water Pressure Zone) to serve the northern portion of the Shelton UGA.

Inventory

The City of Shelton currently holds annual water rights totaling approximately 4,034 acre-feet. The primary source of water supply for the City of Shelton is from drilled wells. The distribution system consists of five independent pressure zones.

As stated in the 2010 Shelton Water System Comprehensive Plan (2010 Plan), the City of Shelton water system has approximately 3,353 service connections, including approximately 2,736 single family residential connections and approximately 617 multifamily/non-residential connections. Water usage in the City of Shelton has decreased substantially over the last 10 years. In 1998, water demand averaged approximately 1.7 mgd (million gallons per day), while in 2008 average daily water demand (ADD) was reduced to approximately 1.1 mgd. The reduction in demand is generally attributed to a reduction in distribution system leakage and changes in the rate structure in which usage over 900 cubic feet per month was charged at an increased rate.

The distribution system consists of five independent pressure zones. A map of the existing water distribution system depicting the zones is shown in Figure 18 in the appendix.

Level of Service

The City must provide sufficient supply to meet the projected ADD and Maximum Daily Demand (MDD). Additionally, the City has established the goal, in excess of the Washington State Department of Health (DOH) reliability recommendation, to provide sufficient supply with the largest source out-of-service during the MDD, referred to as redundant supply capacity.

Planned Projects

The City currently has adequate water rights to accommodate the next 20 years of planned development in the UGA expansions and has performed the necessary hydraulic modeling and system planning to identify the potential capital improvements that would be required to meet the system demand. Table VI-8 shows the planned projects between 2016 and 2029 (2009$).

Table VI-8: Water Planned Projects

Project Type	2018 - 2032 (2017$)
Source Projects	$5,000,000
Storage and Treatment Projects	$4,900,000
Transmission and Distribution System Projects	$4,250,000
TOTAL	$14,150,000

Source: 2010 Water Comprehensive Plan and 2018-2032 Capital Improvement Program (see Appendices X and XII)

Revenue Analysis

Revenues committed to the water fund and spent on water-related expenditures include charges for water service and connection fees. Additional revenue sources include grants, bonds, and intergovernmental revenues. There is over $5 million in debt revenue that the City has debt service commitments to for water. The City of Shelton Water System Plan contains a detailed revenue analysis and forecast and is adopted by reference.

Sewer/Wastewater

Inventory

The City of Shelton owns, operates, and maintains a wastewater treatment facility, a Satellite Water Reclamation Plant (WRP), five sewage pump stations, and over 35 linear miles of sewer lines. The wastewater treatment plant is located near downtown Shelton and is a secondary treatment facility that cleanses the wastewater that flows into the plant via the collection system and discharges the clarified and disinfected effluent into Oakland Bay. The wastewater treatment plant was originally designed to handle an average design flow of 4.02 mgd, but went through a significant upgrade and rehabilitation in 2010-11 and is currently rated for a maximum month flow of 4.41 mgd.

The satellite WRP is located northeast of the Shelton Hills site, near upper Goose Lake. The plant processes wastewater into reclaimed water that can be reused for irrigation or other purposes. The maximum capacity of the satellite WRP is approximately 400,000 gallons per day, and the plant and existing pipe system is currently running at approximately 50 percent of the phase 1 design capacity. The Shelton WRP came online in October 2009, and was built to service the Washington Corrections Center (WCC), the Washington State Patrol (WSP), and portions of the City's sewer service area. Figure 19 in the appendix shows existing wastewater facilities and basins.

Level of Service

Based on the current population of the City (approximately 9,800 people according to the 2010 Census; or 10,070 people according to 2016 OFM estimates), the plant has available capacity for its current service area. The population including the city and current UGA equals 13,816 persons as of 2016 based on OFM small area estimates. The City of Shelton Sewer Comprehensive Plan addresses future sewer service in unserved areas of the city and UGA.

Planned Projects

When the wastewater treatment facility and the Satellite Wastewater Reclamation plant were constructed, the engineers designed the plants to be easily expanded to meet future treatment needs in Shelton. Expansion projects are included in the future planned projects, specifically the Shelton WRP Expansion Phase II and III (.8 mgd additional capacity). The Public Works Department recently updated their Capital Improvement Program for the term 2018-2032 to anticipate probable sewer projects in the planning period. As areas of the City develop further this plan will need to be adjusted and updated based on the size and intensity of development proposed. Table VI-9 Illustrates dollar amounts of known and planned projects for the sewer department during the planning period. The City of Shelton Sewer Comprehensive Plan (2013) contains a number of system expansion projects to accommodate new development, as it occurs, that totals approximately $40,000,000. These projects include expansion of the City's Satellite Wastewater Treatment Plant. However, new technology developed since the Satellite Wastewater Treatment Plant was constructed allow the existing plant to be expanded in capacity within its existing footprint at an extremely reduced cost. The planned projects identified in Table VI-9 reflect these same expansions but with updated costs. Figure 20 in the appendix also shows existing and future wastewater facilities envisioned by the department.

Table VI-9: Sewer Planned Projects

Project Type	Short Term (2017$) (2018 - 2023)	Long-Term (2017$) (2024 - 2032)	Total Costs (2017$) (2018-2032)
Repair/Rehabilitation/Maintenance Projects	$200,000	$69,000	$269,000
Expansion Projects	$2,800,000	$0	$2,800,000
TOTAL	**$3,000,000**	**$69,000**	**$3,069,688**

Source: City of Shelton 2018-2032 Capital Improvement Program, Correspondence from Ovivo USA, and City of Shelton Comprehensive Sewer Plan (2013) (see Appendices XII, XIII, and XIV)

Revenue Analysis

Revenues to the sewer fund, which commits money to capital spending include charges for service and connection fees for new development. Additional revenue sources include grants and intergovernmental revenues. Currently, the City of Shelton Sewer Utility has approximately $40 million in debt service commitments that must be considered due to to recent sewer projects and upgrades.

The Shelton Sewer Comprehensive Plan includes a revenue analysis with detailed information on funding sources and anticipated projects and is adopted by reference.

Stormwater Management

Stormwater originates from precipitation that falls to the ground within watersheds. The surface water that is not absorbed into the soil accumulates and flows downhill towards drainage basins, creating intermittent and diurnal streams. Impervious surfaces such as roads and roofs diminish absorbency and accelerate the amount and movement of surface water and creates the need for stormwater management. The presence of hazardous substances such as gas and oil from vehicles creates additional stormwater management challenges as stormwater flushes these pollutants into streams and wetlands and negatively impact the natural environment. Managing stormwater decreases flooding and reduces water quality risks to water bodies and ground water. Collected stormwater is discharged into several creeks flowing through Shelton or directly into Oakland Bay.

Inventory

The city's stormwater system manages surface water through collection and conveyance in storm drains, collection and conveyance in roadside ditches and culverts, retention in impoundments, and disposal into infiltration dry wells.

Level of Service

Storm drainage is dependent on the carrying capacity of the receiving streams. The City contributes only 20 percent of these stream flows and the watershed outside of city limits contributes the remaining 80 percent. New and intensive land use in the surrounding watershed impacts stream flows and reduces the stream loading capacity available to the City. New development must incorporate storm drainage design, including retention/detention of stormwater as mandated in the Shelton municipal Code and by the National Pollutant Discharge Elimination System Phase II stormwater permit.

Planned Projects

Projects budgeted for 2017 include a Laurel Street Storm extension for $33,900 (2016$). New development will be required to construct stormwater facilities in accordance with Chapter 13.02 of the Shelton Municipal Code.

Revenue Analysis

Revenues committed to the stormwater fund include charges for service. Additional revenue sources include grants and intergovernmental revenues.

Solid Waste Management

Inventory

Until June of 2017 the City of Shelton operated its own garbage and recycling collection utility system that serves over 3,400 residential and some limited commercial customers. That service and utility have now been transferred over to a private hauler though service options within the City remains the same.

Within the City, refuse collection is mandatory; all residents pay for the service, whether they use it or not. The service fee is based on the size of container that the customer requests.

Collected refuse is transported to a transfer station at the Mason County Solid Waste Facility, located northwest of Shelton. Mason County charges the City to export refuse to the regional landfill in Klickitat County.

Waste reduction efforts are accomplished through the inclusion of a residential and commercial recycling programs and a residential yard waste program in the services offered by the hauler. The costs for the program are "rolled" into the refuse collection fees. The program accepts most commonly accepted materials including; newspaper, magazines, mixed paper, cardboard, tin cans, aluminum cans, and glass.

Planned Projects

Projects budgeted for 2017 include work on the "C" Street Landfill Closure which, as of the writing of this plan, is in the remedial investigation phase. This project will require expenditures of almost $300,000 (2016$).

Revenue Analysis

The City collects a utility tax from the private hauler that is expected to be in the realm of $500,000. The tax is accepted into the City's General Fund. It is expected that these funds will be utilized, in part, to continue funding the "C" Street Landfill closure.

Transportation

See Transportation Element and Transportation Plan.

UTILITIES

Electricity – Mason County Public Utility District #3

Residents of the City of Shelton and the Urban Growth Area receive their electricity from the Bonneville Power Administration via Mason County Public Utility District #3. Mason County P.U.D. #3 was organized in 1939 in an effort to address the utility needs of local residents.

Mason County P.U.D. #3 currently serves residents throughout the City of Shelton and Urban Growth Area.

Mason County PUD #3 is a full requirements customer of the Bonneville Power Administration (BPA), meaning that BPA provides all of the District's power requirements at cost based rates. PUD #3 takes delivery of BPA power at eleven substations, ten of which are owned by the utility. It has 1,777 miles of primary lines and owns and operates 29.80 miles of 115 KV transmission lines.

PUD #3 also receives small amounts of electricity from the Nine Canyon and White Creek wind farms, and Packwood Lake Hydroelectric Project. The PUD owns a 5.4 megawatt natural gas-fired generator (Olympic View Generating Station) located on Highway 102 near Shelton. The station is powered by reciprocating natural gas engines. The generator was used during the 2001 energy crisis to reduce energy demands. It is kept on standby for potential demand reduction, backup, reduction of Bonneville Power

Administration transmission congestion on the Olympic Peninsula, or load shedding during times of high power demands in the region.

The PUD is subject to the Washington State Energy Independence Act (Chapter 19.285 RCW), which establishes a renewable portfolio standard with renewable energy targets as a percentage of customer load. The targets have increased over time, from 3 percent in 2012, to 9 percent in 2016, to 15 percent in 2020. Eligible resources include water, wind, solar energy, geothermal energy, landfill gas, wave, ocean or tidal power, gas for sewage treatment plants and biodiesel fuel and biomass energy. Electricity generated at existing hydropower facilities do not count towards I-937 renewable portfolio compliance.

There are 11 substations that serve PUD 3 customers. They are Collins Lake, Union River, Belfair, Benson (Mason-Benson Rd.), Pioneer (Highway 3, near Pickering Rd.) Mason (Downtown Shelton), Dayton, Skookum (near the Hwy 108 & Hwy 101 intersection), Mountain View, and Potlatch (near Lake Cushman, owned by BPA). To increase system reliability, there is another substation planned for construction near Taylor Towne.

Substations and distribution networks are constructed or improved to meet electrical demand and ensure reliable and safe operation of the PUD 3 power grid. The utility is demand driven - that is, it expands its level of service to meet demand as needed or projected. Customers needing to be connected to the service generally cover the costs of the connection. This may include infrastructure expansion and improvements, which vary by site and service requirements. Once service is connected, costumers in the same class of service (for instance, residential) pay a rate based on the cost to serve their type of energy demand and consumption.

The PUD has not identified any lands needed for future expansions of facilities as capital or maintenance projects. However, when land developers submit an application for connection, the utility plans and coordinates construction of the required electrical facilities to serve the load of the completed planned development. The developer bears the cost of required infrastructure improvements.

Existing transmission lines are generally located in road rights-of-way. The PUD does not normally purchase or condemn rights-of-ways for their utility lines, but hopes to continue to use public rights-of-way for their utility lines in the future. The location of electrical lines on property being developed is determined by the property owner, although the county subdivision regulations provide for utility easements. These usually include the roadways and along lot lines.

The PUD recommends installation of distribution facilities below ground and in conduit. Although this method of installation is more expensive, the benefits include greater reliability, lower maintenance costs, and improved aesthetics.

Natural Gas – Cascade Natural Gas

Cascade Natural Gas Corporation (CNG) builds, operates, and maintains the natural gas facilities that serve Shelton. CNG is an investor-owned utility serving customers in sixteen counties within Washington State. Cascade Natural Gas provides natural gas for residential, commercial, and industrial uses in Shelton and the Urban Growth Area.

Natural gas is supplied to the region via two interstate pipeline systems. The Pacific Gas Transmission Company and The Williams Companies each own and operate their respective regional pipeline networks, which supply natural gas to Washington, Oregon, and Idaho.

Customer hook-up to the distribution system is governed by CNG's tariffs as filed with and approved by the Washington Utilities and Transportation Commission. Connection to CNG's distribution system is solely demand driven. Connections cannot be planned in advance and are initiated by customer requests.

The location, capacity, and timing of new improvements depend greatly on opportunities for expansion, and how quickly Shelton grows. Cascade Natural Gas has an active policy of expanding its supply system to serve additional natural gas customers. CNG's engineering department continually performs load studies to determine CNG's capacity to serve its customers. More information is available in the current CNG Integrated Resource Plan, available at www.cngc.com.

Telecommunications

Telephone Services

Several companies provide local telephone service in Mason County. They include Hood Canal Telephone Company, Inland Telephone Company, and Century Link. Century Link serves over 90% of Mason County Residents. Existing transmission lines are generally located in road right-of-ways. The location of telephone lines on property being developed is determined by the property owner, although the county subdivision regulations provide for utility easements. These usually include the roadways and along lot lines.

Hood Canal Telephone Company

Hood Canal Telephone Co. Inc, dba as Hood Canal Communications is the Local Exchange Carrier (ILEC) in Union. They provide telephone, broadband and cable services using fiber, copper telephone cables, and coaxial lines. They are also a Competitive Local Exchange Carrier (CLEC) providing the same services into CenturyLink's serving territory using fiber and coaxial cables. The CLEC serves the communities of Skokomish Reservation, Potlatch, Hoodsport, Lilliwaup, Hamma Hamma, Lake Cushman, Skokomish Valley, Shelton, Squaxin Tribe, Kamaliche, Timberlakes, Shorecrest, and Spencer Lake. They have interconnection agreements with CenturyLink for telephone service and utilize multiple providers for middle mile fiber connections. They provide telecommunication services to approximately 5,000 business and residential customers. This is a significant growth in services from 930 customers in 1993.

CenturyLink

CenturyLink is the largest provider of local exchange service in Mason County, with a service area that includes all areas of the county not served by the Hood Canal and Inland Telephone Companies. The company provides telephone service to both of the urban growth areas in the county. Century Link generally provides a full range of telecommunication services, however services available in specific areas depend on customer demand and the capabilities of the local central offices.

Century Link facilities are created ultimately by customers' demands upon the existing system. As communities grow, facilities are upgraded to ensure adequate services levels. To make additional services available, facilities are upgraded with new technology.

Cellular Communications

Cellular communications services are play an important role in the day-to-day transfer of information and communications for business, emergency, and personal uses. As new uses for cellular technology are

created and as the cellular technology itself is improved the use of this technology is likely to increase, requiring additional transmission site facilities and the need for coordinated planning to ensure that permits and applications are processed in a timely manner, and in a manner consistent with the Land Use Element.

It is expected that Verizon, Sprint, and others will continue to offer cellular communications services throughout Shelton and its UGA during the planning period. The City of Shelton adopted a Wireless Communications Ordinance (Chapter 20.66 SMC) in 1997 to address the use.

Cable Television

Cable television service is provided in the greater Shelton area by providers like Comcast, Dish Network, X-finity, etc. These privately-owned utility are expected to serve the future corporate boundaries of Shelton.

ADDITIONAL REGIONAL SERVICES

Mason General Hospital & Family of Clinics

Mason General employs more than 540 employees and 100 volunteers, including staff, physicians, and physical plant. It is known as a top rural hospital in the region. The Mason General Hospital Foundation is a non-profit charitable organization serving Public Hospital District No.1 with healthcare and funded through donations to Mason General Hospital Foundation, MGH Auxiliary, Treasures Thrift Store, and the Centennial and Sherwood Guilds.

MACECOM

MACECOM was created through the consolidation of the Shelton Police Dispatch and the Mason County Sheriff's Office Dispatch. MACECOM collectively dispatches for Law, Fire, and EMS for all of Mason County and is the 911 center.

Shelton Memorial Park Cemetery

The Shelton Cemetery is owned and operated by the non-profit Shelton Memorial Park and is managed by Trustees of the Shelton Cemetery Association. There is no City operational or ownership stake. Memorial Park employs an office sales manager, a grounds manager, and a park attendant.

Income devoted to operations and maintenance comes from sales as well as donations and endowments.

GOALS AND POLICIES

CFU1. Ensure that utilities, public facilities, and services are provided, operated, and maintained in an effective and efficient manner.

CFU1a. Utilities, public facilities, and services should be designed and constructed to handle the anticipated growth of the service area, and to minimize future maintenance and repair costs.

CFU1b. Sewer and water lines and related facilities needed to serve new development should be the responsibility of the developer or provided through a local improvement district.

CFU1c. The City should update and conduct capital facilities planning through the annual review process of the CFE, mandated by the GMA.

CFU1d. The City should apply for all available state and federal grants and other funds to assist development and improvement of sewer, water, and other public facilities and services.

CFU1e. Siting for new utilities and facilities shall be compatible with other plan elements and consider impacts on future City development and land use patterns.

CFU1f. The City should, in conjunction with private utility providers and special purpose districts, designate areas for the location of utility facilities when it is known that facilities are needed and planned.

CFU2. Maintain and enhance current level of service standards and capacities, as growth occurs, to enhance quality of life in Shelton.

CFU2a. The City will maintain a Concurrency Management System to monitor the effects of population growth and contain requirements for maintaining the adopted transportation LOS standards.

CFU2b. Ensure that new development occurs only when adequate utilities and public facilities necessary to support the development are available.

CFU3. Prioritize capital facilities in such a way that existing deficiencies are eliminated before other improvements are considered.

CFU3a. The City should actively seek public input and analyze needs when establishing capital facility priorities.

CFU3b. Available revenue sources should be allocated to finance facility improvements that eliminate the most important deficiencies first.

CFU4. The City should maintain a financing strategy to cover the costs of needed facilities and improvements contained in the Capital Facilities Element.

CFU4a. The City's CFE shall identify all funding sources to pay for the needed projects, as required by the GMA.

CFU4b. If probable funding falls short the City shall incorporate one or all of the following:

a. Reassess the Land Use Element to reduce the impacts associated with densities and land use designations;

b. Lower the adopted level of service standards to reflect service levels that can be maintained given the known financial resources;

c. Increase the amount of available revenue through rate increases;

d. Impose impact fees; or

e. Decrease the amount of project costs.

CFU5. A concurrency management system should support adopted service standards for parks and open space.

CFU5a. Development in the City and Urban Growth Area are required to satisfy at least one of the following requirements in a manner proportional to the impact and/or size of the development as part of expected growth:

a. Provide an open space easement or dedication as a development requirement if within designated open space areas. Development incentives may be offered for remainder of property. These could include, current use taxation programs, or transfer of development rights programs; or

b. Contribute to open space acquisition fund; or

c. Donate property open space designation to the City; or

d. Create an irrevocable living will or trust providing that the open space area will be donated or an easement created in the future. Such agreements must be guaranteed by an encumbrance to property title. (For purposes of this policy, "development" is defined as any construction of a new residential unit, or a commercial or industrial building.)

CFU6. Implement the Capital Facilities Plan in a manner that coordinates and is consistent with the plans and policies of other elements of the Comprehensive Plan, Countywide Planning Policies, and the Growth Management Act.

CFU6a. All capital facilities and improvements should be consistent with the adopted Land Use Map and the goals and policies of other elements of this Comprehensive Plan.

CFU6b. The City of Shelton should maintain a Memorandum of Understanding with Mason County to coordinate planning for and development of the Urban Growth Area, and to ensure that development and facilities follow the vision set out in the Comprehensive Plan.

CFU7. Promote consistency between the long-range capital facilities and utilities planning and the Comprehensive Plan.

CFU7a. The City shall adopt the following utilities plans as they now exist, and as subsequently amended, as part of this comprehensive plan: *The City of Shelton Water System Plan, the City of Shelton Sewer Comprehensive Plan, Shelton Regional Sewer Plan Wastewater Facility Plan* and *Water Comprehensive Plan Amendment and Project Report for the Shelton Area Regional Water System, Addendum To Shelton Regional Sewer Plan Wastewater Facility Plan And To Shelton Water Comprehensive Plan And Project Report For The Shelton Area Regional Water Systems.*

CFU7b. All utility master plans should be updated to support the objectives of the Comprehensive Plan.

CFU7c. The City should provide periodic updates of population, employment, and development forecasts to all utility managers to promote joint planning efforts.

CFU8. Provide and maintain public utility facilities and services to all persons living within utility service areas in a cost-effective manner.

CFU8a. Promote conservation and demand management programs to reduce the need for rate increases and new facilities created by future growth.

CFU8b. Public utility maintenance and rehabilitation programs should be implemented to reduce maintenance costs and minimize rate increases.

CFU8c. Public facilities and services should be designed and constructed to handle the anticipated growth of the service area, and to minimize future maintenance and repair costs.

CFU9. Ensure environmentally sensitive, safe, and reliable capital facility and utility services that are reasonably compatible with surrounding land uses.

CFU9a. The City should ensure that capital facilities and utilities are reasonably compatible with surrounding land uses and reasonably minimize their impacts on the natural environment, consistent with the serving utility's public service obligations.

CFU10. Provide an adequate and effective recycling program to serve the needs of Shelton's residents.

CFU10a. The City should encourage multi-family and commercial developments to provide onsite recycling containers through land development regulations.

CFU11. Process permits and approvals for utility facilities in a fair and timely manner and in accord with the development regulations.

CFU11a. The City should promote, when reasonably feasible, co-location of new public and private service distribution facilities in shared trenches and coordination of construction timing to minimize construction-related disruptions to the public and reduce the cost to the public of service delivery.

CFU11b. Private utility providers and special purpose districts shall prepare such plans and strategies as may be necessary to provide necessary services concurrent with demand.

X.Shelton Urban Growth Area Plan

Introduction

The Shelton Urban Growth Area (UGA) Plan has been prepared as a subarea plan pursuant to the Growth Management Act (GMA). The purpose of this UGA Plan is to establish guiding goals and policies for future development within the Shelton UGA. Goals and policies contained in this UGA Plan address land use, population growth, transportation, annexation, and interjurisdictional coordination.

The Shelton UGA is the area immediately outside of the Shelton City limits located within unincorporated Mason County. Under the Washington State Growth Management Act (GMA), counties, in consultation with cities, may designate areas abutting municipal limits, characterized by urban growth and able to be served, as UGAs. In 1995/1996, the City of Shelton and Mason County first established an UGA around the City in accordance with the principles of the GMA. The boundaries of the UGA were based upon an assessment of the anticipated population growth, existing urbanized character, natural and manmade topographical constraints, infrastructure availability, and the community's vision for growth. The Dayton Airport Road Commercial Industrial Center and Goldsborough Heights areas represent the largest proposed expansions to the Shelton UGA since being established.

Description of UGA

The Shelton UGA is a part of the larger Shelton community, but is distinct in its own right. The Shelton UGA and the Shelton City limits share an interdependent transportation network, school district/utility districts, and a regional economic role. However, the UGA has its own unique characteristics. The UGA is characterized by its residential development pattern, developed at urban densities, but located within partially developed areas. Natural features such as the creeks and the presence of old growth trees also help to define the character of the UGA. The presence of essential public facilities such as Sanderson Field, other Port of Shelton properties, and the presence of traditional forest industries such as finished forest products all contribute to the economic base of the region.

In the past, Mason County's Comprehensive Plan designated Shelton's UGA as an "Urban Area". Previous land use designations did not break down this "Urban" designation further. However, Mason County's Comprehensive Plan has consistently contained general goals and policies for the Shelton UGA.

The Shelton UGA Plan now provides area-specific goals and policies, and a more detailed Future Land Use Map identifying a variety of residential, commercial, and industrial uses reflecting current land uses

and the future vision for the area. This UGA Plan is incorporated into the City of Shelton Comprehensive Plan.

Relationship to Existing Comprehensive Plan

This UGA Plan augments the other chapters of the City of Shelton Comprehensive Plan and addresses the Shelton UGA in greater detail. Other Comprehensive Plan Elements provide the general goals and policies for land use, transportation, economic development, etc. for the UGA. However, policies in the UGA Plan are intended to address unique characteristics or issues relevant to the UGA.

The UGA Plan was developed to delineate and implement several goals, policies and objectives, including:

- To serve as an informational resource for the City and County staff, elected officials, residents, property owners, and business owners;
- To plan for orderly growth and development;
- To facilitate the cost-effective extension of services;
- To identify UGA specific goals and policies;
- To provide greater predictability to property owners on the future use and enjoyment of their property;
- To provide a framework to guide future annexation decisions and extension of public services.

To implement the goals, policies, and recommended actions of this plan, the City and County have incorporated the UGA plan into their Comprehensive Plans. The County will then revise and implement development regulations for the UGA consistent with the City of Shelton's regulations.

UGA Population Profile

In order to plan for future population growth in the UGA, it is important to understand the current population characteristics. The UGA population was 3,746 persons in 2016.

Population characteristics according to 2013 American Community Survey data, the average age of residents in the UGA is 36 years old, with 58 percent of the population over 65 being female, and 41 percent being male. Approximately 26 percent of the population in the UGA are children (under age 18). Approximately one-eighth of the UGA population is age 65 or older.

Based on the 2013 American Community Survey data, roughly approximated to the UGA boundaries, a majority of the population is white. A minority of the population identify with other races. Results show:

- White—78.8%
- Black or African American—0.5%
- American Indian and Alaska Native—2.9%
- Asian—0.9%
- Native Hawaiian and Other Pacific Islander—1.1%
- Other single race—8.8%
- Two or more races—6.0%

The U.S. Census Bureau considers Hispanic or Latino origin an ethnicity, not a race, and reports statistics on these populations separately. As a result, Hispanics or Latinos may belong to any race or combination of races. Results for the UGA show approximately 19.1 percent of the residents to be of Hispanic or Latino origin.

Housing and Household Characteristics

According to the 2013 American Community Survey, the average household size in the UGA is 2.69 persons per household, while the average family size is 3.45 persons per family. As of 2016, approximately 1,400 households reside in the UGA. Approximately 56 percent of the housing units in the UGA are owner-occupied, while the remaining 44 percent are rentals.

Land Capacity Analysis

A land capacity analysis was prepared for both the City of Shelton and the Shelton UGA to identify the amount of residential, commercial, and industrial land available to accommodate the projected population growth. This exercise was conducted to determine whether the City and UGA are adequately sized to accommodate population projections through 2036. The analysis looked at the vacant and potentially redevelopable areas (land not developed to full potential). (See Figure 2) For residential capacity, the total vacant and underdeveloped acres were discounted for critical areas such as wetlands, streams, and steep slopes, rights-of-way and public purpose lands, and market factors (i.e. not all property owners would want to sell or develop). These acres were then multiplied by a density factor of 4 dwelling units/acre in the unincorporated UGA and 5.2 dwelling units per acre in the City limits. It should be noted that a capacity analysis may make adjustments or discounts to the amount of available land, but does not estimate the time or rate that growth will occur, only the capacity of the land for additional development. The market demand for homes and potential commercial/industrial development interest will in part determine the timing and rate of growth within the 20-year planning period for the UGA.

Residential Growth

The Shelton UGA was originally sized in the 1995 City of Shelton Comprehensive Plan and the 1996 Mason County Comprehensive Plan and updated in 2004/2005. As part of that Comprehensive Plan update a Shelton Urban Growth Area Element was included to address projected UGA growth and the sizing of the UGA boundary as appropriate to meet the projected growth in 2025[1]. The addition of the Goldsborough Heights area to the UGA in 2017 allows for the transfer the development potential in portions of unincorporated Mason County into an area where urban services (i.e. municipal water and sewer) can be provided.

Consistent with GMA provisions regarding UGA sizing, the designated UGA is to include densities sufficient to permit the urban growth projected to occur in the community for the 20-year planning period. Population targets are formally designated by Mason County in accordance with the GMA. UGAs may also include greenbelts and open space areas, including lands useful for recreation, wildlife habitat, trails and connection of critical area habitat. Typically, this will include public properties but may include private properties that are unique, recognizing that any such designations need to provide for reasonable use of private property.

Further, GMA describes the phasing of growth. Communities are to promote growth first in areas already characterized by urban growth that have adequate existing public facility and service capacities, second in areas already characterized by urban growth that will be served adequately by a combination of both existing and future public/private facilities and services, and third in the remaining portions of the UGAs.

Western Washington Growth Management Hearings Board (WWGMHB) cases have generally held that UGAs should be sized to match the population allocations projected for a community. The WWGMHB has acknowledged that there may be unique cases in determining UGA boundaries.

Commercial/Industrial Growth

In 2006, a Mason County Industrial Needs Analysis was prepared for the Mason County Economic Development Council that looked at the industrial land needed to sustain economic development in Mason County through 2025. The analysis projected a need for 1,790 gross acres of land designated for industrial use throughout Mason County and identifies a great need for 20 – 40 acre sized parcels—both leased and purchased. Minus already designated industrial land as of the date of the Industrial Needs

[1] A planning level capacity analysis in Appendix A shows a capacity within 2% of the growth target assuming revised UGA boundaries.

Analysis there is an unmet countywide need for about 804 additional vacant industrial acres.[2] In 2014, the City, in conjunction with Mason County and other partners, commissioned an updated industrial lands analysis to better understand future need and demand within the region since the great recession of 2008. This analysis indicated that:

- Employment in Mason County declined by more than 1,500 jobs from 2008 to 2012.
- In the last 15 years, over 80 percent of the industrial or warehouse buildings constructed in Mason County were located in the Shelton UGA
- The need for added industrial lands would likely come from activity or sectors that are not currently located or very large in the local market, or from regional public facilities.

The Dayton Airport Road Industrial-Commercial Center is anticipated to complement and expand upon business generated from the Ridge Motorsports Facility, located directly to the west which opened in 2012. Industrial land use would be proposed to the south of Dayton Airport Road (SR-102), a mix of commercial and industrial uses would be allowed consistent with Shelton's Commercial Industrial zone to the north, which favors large format retail ("big box"), warehousing, and light and medium industrial uses. The results of the employment capacity analysis are that the industrial and commercial buildable acres could support between 2,000 and 4,000 jobs.

Shelton serves as the major community in south Mason County. The Industrial Land Needs Analysis for Mason County identified a high retail leakage to other areas – only 54% of residents' retail spending occurs in Mason County. By bringing in more family wage industrial jobs, and reducing out-commuting, more retail dollars may be spent locally than spent in Olympia or elsewhere. Please see Appendix A.

Annexation

For purposes of efficient services, coordinated land planning and development, and unity between economically and socially related areas, citizens, property owners, and the City of Shelton may desire annexation. As noted above, the GMA provides for coordinated UGA planning between counties and cities with the intent that urban and urbanizing areas ultimately be served by municipalities. In the GMA framework, annexations may occur only within a jurisdiction's designated UGA. By addressing the Shelton City limits and the Shelton UGA in the Shelton Comprehensive Plan, and by addressing the

[2] The Industrial Land Needs Analysis assumed 872 acres of land 3 acres or greater were designated as Industrial in Shelton. Based on the current land capacity analysis for the December 2007 Future Land Use Map, the number of gross vacant industrial acres equals about 848 rather than 872. That would mean that the new net land demand need Countywide would be about 828 acres rather than 804.

Shelton UGA in the Mason County Comprehensive Plan, the City and the County are responding to the GMA framework to manage growth, provide efficient services, and plan for the community needs of the broader Shelton community.

The methods of annexation applicable to the Shelton UGA include:

- The Election Method, Initiated by Ten Percent Petition, is initiated by the collection of signatures from qualified electors in the area proposed for annexation equal to ten percent of the number of voters in the last general election in that area. This method would require an election by the residents of the area being considered for annexation. This method could be used to annex portions of or all of the UGA at a time.
- The Election Method, Initiated by Resolution, may be initiated by city commission resolution. This method would require an election by the residents of the area being considered for annexation. This method could be used to annex portions of or all of the UGA at a time.
- In May 2003, legislation became effective which adopted a new "Petition Method of Annexation." Under the law, the annexation petition must be signed by property owners (owning a majority of the area) and by registered voters (a majority in the area). If there are no registered voters (vacant, commercial, or industrial property, or property that has residents but no registered voters), then only owners of a majority of the area need sign. This method could be used to annex portions of or all of the UGA at a time.
- The Sixty Percent Petition Annexation Method is initiated by the collection of signatures from the owners of property representing not less than ten percent of the assessed value of the property for which annexation is sought. If the legislative body of the city accepts the 10 percent petition, then petitioners must collect petition of the owners of at least 60 percent of the property value in the area, computed according to the assessed valuation of the property for general taxation purposes. A public hearing is held before a decision is made by the city legislative body. This is the most frequently used method of annexing unincorporated territory for code cities.
- Unincorporated Island Annexation. Annexation statutes provide for an abbreviated procedure to annex unincorporated islands or pockets of property within a city. When there is an unincorporated area (1) containing less than 100 acres of which at least 80 percent of the boundaries are contiguous to a city or (2) of any size and having at least 80 percent of the boundaries contiguous to a city if the area existed before June 30, 1994 and the city was planning under the Growth Management Act as of that date, the city commission may initiate annexation proceedings by resolution. However, annexation by this method is potentially subject to a referendum election within the unincorporated territory.
- Annexation for municipal purpose, where a code city may, by majority vote of the city commission, annex territory outside its limits for any municipal purpose, if the territory is owned by the city. This may be done regardless of whether the territory is contiguous or noncontiguous.

As indicated in the methods above, annexation is largely a citizen/property owner driven process. The City of Shelton intends to promote a smooth transition from Mason County to City of Shelton administration, upon approval of annexation petitions.

Key issues for the City of Shelton will be the feasibility of providing services to areas that request annexation, and the coordination with the County as areas transition to the City. UGA policies (UGA5a-5f) address annexation and coordination between the City of Shelton and Mason County.

Coordinated Development Review

One of the key implementation goals for the UGA Plan is to develop a coordinated development review process between the City and County for the UGA. The 2003 Memorandum of Understanding that County staff, upon adoption of the UGA Plan, will apply the City's land use designations when reviewing land use and development proposals in the UGA. This approach will help to minimize future land use conflicts for permitted projects in the UGA. Goals and policies provide direction on this coordinated development review process with the ultimate objectives being:

- Provide a predictability and timeliness and use process for property owners
- Facilitate land use compatibility
- Implement the Memorandum of Understanding between the City and County

UGA Boundaries and Land Use Designation

Nonconforming Uses in the UGA

Cottage Industries (Home Occupations)

Mason County allows for more intense home occupations by special use permit (e.g. home occupations requiring parking – called cottage industries), whereas this process is not available in the City of Shelton. Although residential properties with a cottage industry/special use permit would be allowed as a pre-existing non-conforming use if annexed to the City, there could be potential future land use conflicts associated with incompatible land uses over time as infill and increased urban densities occur within residential areas. UGA policies (UGA2c & 2d) address County/City procedures, grandfathering (i.e. allowance of legal nonconforming uses), and buffering next to less intense uses.

Pre-existing, Non-conforming Uses

A comparison of existing land uses (current use) to future land use designations identified in the City of Shelton's 1995 plan indicate that there would be a limited number of non-conforming uses once under the City's jurisdiction (Jones & Stokes, August 2004). Based on the 1995 land use plan, there would be limited cases of residential uses in industrially designated areas and commercial/industrial uses in residentially designated areas. For the most part the future land use designations for the UGA resolves the nonconformities applying land classes that match groupings of nonconforming uses. In some cases there are isolated residential or commercial uses in land use classes that promote the opposite uses. UGA policies (UGA2c & 2d) address grandfathering (i.e. allowance of legal nonconforming uses) of these uses.

Gateways

The Future Land Use Map (Figure 1) identifies three gateway locations that provide an important first impression for visitors to the community. The gateway corridors are located along Highway 101 and on SR-3 at the north and south entrances to City limits. These three gateway locations either extend into the UGA or represent the approach into the City limits and provide the opportunity to create the feeling of entering a distinct, unique place. UGA policy (UGA 2a) addresses the landscaping and buffers associated with these gateway locations in the UGA.

Urban Growth Area Goals & Policies

The following UGA goals and policies are in addition to the goals and policies contained in other chapters of the Comprehensive Plan, and are specific to the unique circumstances of the UGA. As appropriate, the UGA Plan goals and policies shall be applied together with other Comprehensive Plan goals and policies.

Urban Growth Area Land Use

UGA Goal 1: Provide for orderly growth in Shelton's UGA.

Policy UGA1a. Land use policies and regulations shall accommodate a residential growth target of approximately 9,417 additional persons within the City and UGA boundary by 2036, as established in the Countywide Planning Policies.

Policy UGA1b. The UGA shall include land sufficient to accommodate commercial uses serving local and regional populations, including retail, service, financial, and institutional uses of small, medium, and large sizes.

Policy UGA1c. The UGA shall designate land suitable for industrial purposes, sufficient in acres and parcel sizes to accommodate small to large industrial uses. Such uses shall be sited and designed to be compatible with adjacent non-industrial uses while meeting employer needs.

Policy UGA1d. The UGA designations shown on the official Land Use Map (Figure 1) includes enough land to provide the capacity to accommodate growth expected over the 20-year planning period. These lands should include only those lands that meet the following criteria.

a. Are characterized by urban development, which can be efficiently and cost effectively served by urban governmental services within the next 20 years;

b. Greenbelts and open space in the UGA including lands useful for recreation, wildlife habitat, trails, and connection of critical areas, consistent with GMA requirements and in a manner recognizing reasonable use of private property;

c. Are not unincorporated agricultural or forestry lands of long-term commercial significance designated through Mason County Comprehensive Plan or the Countywide Planning Policies process.

Policy UGA1e. Areas with significant environmental hazards, unique or fragile ecosystems of high rank, order, and function, or long-term infrastructure limitations, may be further protected beyond the application of development regulations through low-density zoning.

Policy UGA1f. Parcels which are split by the UGA boundary line should be redesignated to either all urban or all rural unless the parcel is split to recognize unique physical and environmental features, or the requirements of interlocal agreements, or other County or City plans.

Land Use Compatibility

UGA Goal 2: Protect and enhance the character, quality and function of development in the UGA while accommodating future growth.

Policy UGA2a. The City, in consultation with Mason County, the Port and WSDOT, shall establish landscape standards and buffers for designated Gateway areas that emphasize the importance of retaining existing trees as key elements of Shelton's character.

Policy UGA2b. The City and County should ensure plans and regulations address, where appropriate, compatibility issues including height hazards, safety and noise that can affect the long-term viability of Sanderson Field. Through the airport overlay zone adopted by the City and the County, allow compatible uses, buildings, or activities in the vicinity that do not present safety problems to normal airport operations, or that would not be sensitive to noise from the Airport operations.

Policy UGA2c. The City should work with the County to develop standards for unincorporated land within the UGA that will require buffering of cottage uses next to less intense properties, such as landscaping, fencing, setbacks, or a combination of approaches. The City should recognize cottage industries permitted in the UGA as grandfathered uses when annexed. The County should consider applying the City's home occupation standards to land within the Shelton UGA.

Policy UGA2d. The City shall recognize legally established residences in commercial/industrial zones, and legally established commercial/industrial uses in residential zones as grandfathered (nonconforming) uses when annexed.

Urban Growth Area Transportation

UGA Goal 3: Establish a safe, coordinated, and linked multimodal transportation system to service local and area-wide travel needs.

Policy UGA3a. As appropriate, subsequent transportation modeling should jointly be conducted by the County and the City, to identify current traffic levels, identify recommended improvements, and address future levels of service.

Policy UGA3b. To address traffic concerns and mitigation, the City and County should jointly determine an appropriate LOS standard as part of an interlocal agreement. The City and County may revisit standards upon the completion of additional traffic analyses.

Policy UGA3c. To the greatest extent possible, given topographic and environmental constraints, future functionally classified roadways should attempt to provide a grid system to facilitate an interconnected system of streets in the UGA.

Urban Growth Area Services Provision

The following goals and policies for future annexations and the provision of services in the UGA provide direction regarding utility extension and the circumstances in which it will occur. This will help to facilitate a seamless transition of services in the UGA if and when properties become annexed to the City.

UGA Goal 4: Provide effective, efficient, and quality capital facilities and public services at the level necessary to meet community needs and support allowed growth.

Policy UGA4a. The County and City should coordinate with service and utility providers to ensure UGA services support planned growth, meet desired customer service needs, and result in a comparable community system in the greater Shelton area.

Policy UGA4b. The City and County should coordinate with local Fire Districts, to ensure adequate fire and emergency response in the UGA.

Policy UGA4c. The City's level of service standards for sewer and water service should be applied to the UGA once services are extended into the UGA. Sewer and water improvements and services should be consistent with the Regional Water and Sewer Plans identified in the City of Shelton Comprehensive Plan Utilities Element as amended over time.

Policy UGA4d. In consultation with the Mason County Sheriff's Department, the City should ensure adequate police services are provided within the UGA.

Policy UGA4e. To avoid City assumption of nonconforming infrastructure, a coordinated Capital Improvement Program and maintenance plan should be prepared between the City and County. Such a program should be developed prior to annexation required to meet levels of service are implemented concurrent with new development. When considering annexation proposals that have significant existing nonconforming infrastructure, the City should consider service delivery and revenue enhancement options.

Policy UGA4f. The City will consider extension of water and sewer services outside City limits based on criteria including, but not limited to the following:

- The lands to be served must be, either:
  - Inside the City's UGA, or
  - Intended to service essential public facilities, or
  - In rural areas only in limited circumstances when shown necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development, consistent with State law.
- Extension of services to Regional Plan Partners is to be accomplished in accordance with Regional Water and Sewer Plans and agreements.
- Land owners requesting water and/or sewer service outside the City limits are to sign a utility extension agreement that addresses the following:
  - Costs of design, engineering, construction, and inspection of extension as paid by the owner;
  - Easements and permits to be secured and obtained by the owner;
  - Dedication of capital facilities to the City;
  - Connection charges paid by the owner;
  - Agreement by the owner not to protest annexation;
  - Connection to both sewer and water services;
  - Waiver of right to protest local improvement district;
  - Development of property to conform to City code when developing or redeveloping the property subject to the agreement; and
  - Remedies that may be required due to noncompliance with the terms of the agreement.

Annexation

UGA Goal 5: Provide a framework for processing annexation requests.

Policy UGA5a. The City should use, but is not limited to, the following factors in determining the specific location of an annexation proposal boundary:

a. The annexation boundary, where appropriate, should adjust any impractical or irregular boundaries created in the past.
b. The annexation boundary should, where appropriate, provide a contiguous and regular boundary with current City limits.
c. The annexation boundary, where appropriate, should be drawn along property lines and/or existing or future right-of-way boundaries. Annexation boundaries, where possible, should not be drawn along right-of-way centerlines.
d. UGA roadways contiguous to a proposed annexation area should not be included within the proposed annexation boundary, unless the roadways are contiguous to current City limits.
e. When a proposed annexation includes portions of a natural lake, the annexation boundary should be modified to include or exclude the entire lake area from the proposed annexation. If more than 50 percent of lakefront property is included in an annexation proposal, then the annexation boundary should include the entire lake; if less than 50 percent of the lakefront property is part of the annexation proposal, then the lake should be excluded.

Policy UGA5b. The City should process annexation requests in accordance with review criteria. Review criteria should include, but are not limited to:

- Areas to be annexed are included in the Shelton UGA.
- The annexation proposal should create and/or preserve logical service areas. Annexations generally should not have or create abnormally irregular boundaries that are difficult to serve.
- The annexation proposal should use physical boundaries, including but not limited to bodies of water, highways, and land contours as noted in Policy UGA5a.

Policy UGA5c. The City should give priority consideration to annexation proposals that are financially self-sufficient or those where the fiscal impact can be improved. The City should develop a variety of service delivery or revenue enhancement options to increase the feasibility of annexation.

Policy UGA5d. The City may request a fiscal analysis of the annexation proposal by annexation proponents.

Policy UGA5e. Upon annexation, the City shall require properties to assume zoning consistent with the UGA Plan Land Use Map, as adopted or as amended where appropriate.

Policy UGA5f. Where appropriate, the City and/or County should allow development agreements in the UGA that are consistent with the approved UGA Plan.

Interjurisdictional Coordination

UGA Goal 6: Coordinate UGA planning efforts with Mason County and other neighboring jurisdictions and agencies.

Policy UGA6a. Following the approval and adoption of this plan, the City of Shelton and Mason County shall enter into an agreement that details the process and expectations for coordinated development review in the UGA. Topics may include but are not limited to: land use and development regulations, public service delivery responsibilities, infrastructure standards, procedures and fees, and other relevant topics.

Policy UGA6b. The City of Shelton and Mason County should conduct a regulatory consistency analysis with County and City regulations. The City and County should jointly determine which regulations apply to lands and development in the UGA, and apply regulations consistently.

Excerpts from Mason County Comprehensive Plan 2036

Mason County Plan 2036

Growth and Opportunity:

Planning for sustainable community and economic development

CHAPTER 2 – COUNTYWIDE PLANNING POLICIES & OBJECTIVES

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The Role of the Countywide Planning Policies

- These countywide planning policies shall be the foundation for the Mason County Comprehensive Plan.

- As required by RCW 36.70A.120, all elements of the Comprehensive Plan and implementing regulations, including zoning maps, zoning regulations, and any amendments, shall be consistent with and implement these policies.

- As required by RCW 36.70A.120, all planning, land use permitting actions and capital budgeting decisions shall be made in conformity with the adopted comprehensive plan.

- The Mason County Comprehensive Plan adopts by reference the following functional plans: Shoreline Master Plan, Drainage, Floodplain, Schools, Special Districts, Economic Development, Parks and Recreation, Transportation, Watershed, and any other functional or subarea plans adopted by Mason County. Each referenced plan shall be coordinated with, and consistent with, the Comprehensive Plan.

- All disputes over the proper interpretation of other functional plans and all implementing regulations, including zoning maps and zoning regulations, shall be resolved in favor of the interpretation which most clearly achieves Countywide Planning Policies.

- A definition section will be incorporated into the final Comprehensive Plan document with definitions that are clearly articulated in Mason County Code or state or federal statutes.

Table 1. Crosswalk - Countywide Planning Policies and Comprehensive Plan Chapter			
Comprehensive Plan Element	**Development Regulations**	**Countywide Planning Policy**	**Policy Statement**
Chapter 3 Land Use	MCC 17.07; 17.10-17.17; 17.20-17.35; 17.70	#1 URBAN GROWTH	Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.
Chapter 3 Land Use	MCC 17.02; 17.05; 17.70; 17.90	#2 REDUCE SPRAWL	Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.
Chapter 8 Transportation	MCC Title 12	#3 TRANSPORTATION	Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.
Chapter 5 Housing	MCC 17.11; 17.90	#4 HOUSING	Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.
Chapter 10 Economic Development	MCC 2.78; 17.07; 17.24	#5 ECONOMIC DEVELOPMENT	Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.
Chapter 3 Land Use	MCC 17.01	#6 PROPERTY RIGHTS	Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.
Chapter 3 Land Use & Chapter 10 Economic Development	MCC 15.05	#7 PERMITS	Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.
Chapter 4 Rural	MCC 8.52; 17.02	#8 NATURAL RESOURCE INDUSTRIES	Natural resource industries. Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands, and discourage incompatible uses.
Chapter 3 Land Use, Chapter 4 Rural, & Chapter 9 Parks	MCC 16.23; 17.07; 17.10; 17.26	#9 OPEN SPACE	Retain open space, enhance recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.
Chapter 3 Land Use & Chapter 4 Rural	MCC 8.52 Resource Ordinance/Shorelines	#10 ENVIRONMENT	Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.
See Public Involvement Plan	MCC 15.09.060	#11 CITIZEN PARTICIPATION	Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.
Chapter 7 Utilities	MCC Title 13, Title 6	#12 PUBLIC FACITILES AND SERVICES	Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.
Chapter 3 Land Use	MCC 17.40	#13 HISTORIC PRESERVATION	Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

INTRODUCTION

This chapter presents the Countywide Planning Policies used to develop Mason County's Comprehensive Plan. The policies in this document are organized and numbered based on the thirteen goals adopted in Washington's State's Growth Management Act (RCW 36.70A) to guide counties and cities in the development and adoption of comprehensive plans. Table 1 shows which Chapter of the Comprehensive Plan provides additional information, statistics, maps and other detail related to each policy.

About Mason County

GEOGRAPHY

Mason County is situated along the southwestern portion of Puget Sound, and encompasses roughly 972 square miles. It borders Jefferson County to the north, Grays Harbor County to the west and southwest, Thurston County to the southeast, Pierce County to the east, and Kitsap County to the northeast. Mason County remains a predominantly rural county despite the urban growth in both Thurston and Kitsap Counties. The City of Shelton, the only incorporated area in Mason County, includes approximately 4.77 square miles, or less than one percent of the County's total land area. Two urban growth areas, Allyn (1.5 square miles) and Belfair (3.9 square miles) are located in the northeast portion of the County adjacent to the eastern border between Mason and Kitsap Counties. Two Native American Tribal Nations, the Skokomish and the Squaxin Island Tribes, have reservations within the boundaries of Mason County.

Three geological provinces combine to form Mason County. They include the Puget Sound Lowland, the Olympic Mountains, and the Black Hills. Additionally, Seven watersheds exist within Mason

County. They include Case Inlet, Chehalis, Lower Hood Canal, Oakland Bay, Skokomish, Totten-Little Skookum, and West Hood Canal. Mason County also includes over 700 miles of some of the most pristine shoreline in the state, nearly 100 freshwater lakes, two major rivers, and a number of smaller tributaries and creeks.

Mason County's rich natural resources and open spaces dominate the County's landscape. Combined national, state, and private forests currently account for over fifty (50) percent of the land area that makes up Mason County. Mineral deposits underlie Mason County's top soils. Agricultural and aquaculture areas contribute both to the County's natural beauty and its economy. Mason County also includes substantial open space. Open space within the County hosts wildlife habitat, undeveloped natural areas, and many developed park and recreation sites. These open space areas are managed by federal, state, county, municipal, and private interests.

CLIMATE

Mason County's climate can be characterized as moderate-maritime, influenced by the Pacific Ocean, yet sheltered by the Olympic Mountains. Average temperatures range from a high of 78° F. in July to 32 F. in January. The average daily temperature in Mason County is 51° F. The County receives an average of 64 inches of precipitation annually, with average monthly rainfalls ranging from a low in July of 0.8 inches, to a high of 10.4 inches in January.

History of Public Engagement

Mason County organized a public process for developing the Countywide Planning Policies (CWPPs) in 1992. That process established a Joint City/County Elected Official Review Board (Board). This Board included the commissioners from both Mason County and the City of Shelton. The Board was guided by the requirements of House Bill 1025 and the Mason County/City of Shelton Regional Strategy Agreement. In addition, the Board used an iterative process for preparing the CWPPs. The approach focused on coordination among Mason County, the City of Shelton, and other public agencies. See Table 2.

The first draft of the Countywide Planning Policies was completed in late January, 1992. The draft went through an informal review and revision period that ended in March of 1992. The formal review period for the CWPPs began in May, 1992 and continued through August, 1992. Public hearings were held in May and June of 1992. CWPPs were revised to reflect input received through the public review process and the public hearings. Mason County and the City of Shelton jointly adopted the Countywide Planning Policies on August 17, 1992.

Table 2. Original Drafters of the Countywide Planning Policies – 1992
City and County Departments
City of Shelton Fire Department
Economic Development Council
Fire Districts
Hospital Districts
Mason County Fire Marshal
Mason County Growth Management Advisory Committee
Peninsula Regional Transportation Planning Organization
Port Districts
Public Utility District No. 1
Public Utility District No. 3
School Districts
Sewer Districts
Shelton City Commission
Shelton/Mason Chamber of Commerce
Skokomish Tribal Nation
Squaxin Island Tribal Nation
Water Districts

In the 2016 - 2036 Comprehensive Plan Update, the Countywide Planning Policies were revisited and updated to incorporate current public input, reflect current trends, and consolidate what has become a broad array of goals, policies and objectives throughout the planning documents Mason County has adopted over time. The foundational documents used to update the Countywide Planning Policies and help support the Comprehensive Plan update are included in Table 3.

Table 3. Mason County Plans Supporting the 2016-2036 Comprehensive Plan Update

Topic	Foundational Plans	Date of Adoption
Comp Plan	Mason County Comprehensive Plan	1970, 1993, 2005
Economic Development	Business Demographic Report, Mason County Economic Development Council	2017
Economic Development	Belfair Urban Growth Area Market Analysis, EcoNorthwest	2003
Economic Development	Targeted Cluster Identification and Strategic Alignment, Pacific Mountain Workforce Development	2012
Electricity	Mason County PUD No.3 Comprehensive Financial Report	2015
Fire	Mason County Wildfire Protection Plan	2012
Homelessness	Mason County Homeless Plan	2016
Housing	Mason County and City of Shelton Housing Needs Assessment	2004
Housing	Housing Matters: 3 Year Housing and Homelessness Strategy for Mason County Washington	2015
Solid Waste	Mason County Solid Waste Management Plan	2010 and Update
Solid Waste	Mason County Solid Waste Investment Needs	2016
Sub-Area	Belfair Sub-Area Plan	2004
Sub-Area	Allyn Sub-Area Plan	2006
Sub-Area	Southeast Mason Sub-Area Plan	1994
Sub-Area	North Mason Sub-Area Plan	1993
Sub-Area	Harstine Island Sub-Area Plan	1993
Stormwater	Mason County Stormwater Management Plan	2009
Transportation	2016 Annual Mason County Bridge Report	2016
Water	Washington State Department of Ecology Water Resource Inventory Area 14 - Storage Assessment Report	2005

VISION STATEMENT

Mason County will remain a primarily rural county, characterized by quiet tranquility, privacy, natural views, and rural enterprise. Although rural character means different things to different people, aspects of it include: natural vistas, fish, shellfish, wildlife, and natural ecosystems; fewer restrictions and more privacy than in an urban area; Urban Growth Areas that are vibrant economic and social centers, the responsible operation of resource based industries such as timber, mining, agriculture, and aquaculture; and the close ties of family and community to the land.

THE URBAN GROWTH AREAS

The Urban Growth Areas of Shelton, Belfair, and Allyn as well as Rural Activity Centers throughout the County will serve as the principal housing, economic, civic, and social centers including commercial, industrial, and airport and business hubs. Each will have a compact core area anchored by retail, service industries, government, housing and education facilities. Shelton will serve as a regional health center serving the Olympic Peninsula, and regional retail will be centered in the City's Olympic Highway North area. The three Urban Growth Areas will provide a strong employment and tax base.

THE RURAL AREAS

Natural resources will continue to provide the foundation of the County's economy. Forestry, agriculture, aquaculture including shellfish and other fisheries industries, Christmas tree farming and mining will provide the natural resource employment. Rural Activity Centers and compatible businesses such as cottage industries will continue to be encouraged and supported. The County's abundance of natural attractions including mountains, lakes, rivers, and wildlife will continue to support the County's thriving tourist industries, including Master Planned Developments. The County's land use regulations will protect natural resource lands and industries against encroachment from incompatible, competing uses.

HOUSING

Residential growth within the County will primarily occur in the Urban Growth Areas of Shelton, Belfair and Allyn. Mason County will offer a range of affordable rural and urban housing choices including single family, multifamily, and mixed-use. Innovations in housing that provide affordable choices will be encouraged. Home owner associations will be encouraged to support compact, well maintained housing in rural areas.

THE ENVIRONMENT AND OPEN SPACE

Mason County will protect the environment in a way that is compatible with the needs of a growing population. One focus will be watersheds and their water quality and quantity. The county will also conserve an open space network that will include wildlife habitat and corridors, greenways, estuaries, parks, trails and campgrounds. This system will help preserve the County's environment and rural character, support the County's tourism industry, and meet the recreation needs of County residents.

PLANNING POLICIES

Mason County's Comprehensive Plan addresses each of the thirteen GMA goals according to the vision shared by County residents. The following discussion identifies the Countywide Planning Policies for Mason County organized by the GMA goal they address.

1: URBAN GROWTH

GMA encourages concentrating development where adequate public facilities and services exist, or can be provided within a reasonable amount of time. In conjunction with the City of Shelton, Mason County adopted County-Wide Planning Policies (CWPP), some of which deal specifically with the issue of urban growth and are designed to ensure growth can be supported by adequate public infrastructure and services.

1.1. Designate Urban Growth Areas around the incorporated City of Shelton and two unincorporated areas of Belfair and Allyn: where infrastructure exists, infrastructure is planned, as identified in an approved Capital Facilities Plan, or services can be reasonably and economically extended; where there is a sufficient supply of environmentally sound land to support urban densities and urban growth forecasted for the 20-year planning cycle, and where the community's vision has identified its area as an Urban Growth Area.

1.2 Mixed-use developments, multi-family developments, employment centers, and other urban land uses are appropriate development to be encouraged within designated Urban Growth Areas, in order to protect rural character in the remainder of the County.

1.3 Encourage development in Urban Growth Areas where:

- infrastructure exists or is planned; or
- infrastructure is provided by the developer according to locally established minimum urban standards

2: REDUCE SPRAWL

GMA discourages the inappropriate conversion of undeveloped land into sprawling, low density development. Several of Mason County's CWPPs are designed to reduce the impacts of growth, including sprawl, in areas outside of Urban Growth Areas.

2.1 Rural areas now exist throughout Mason County and contribute to a large measure of the quality of life enjoyed by residents. These areas are characterized by low housing densities, wilderness and recreational living opportunities, and open space. Other rural qualities include tranquility, low traffic volumes, natural views, privacy, and rural enterprise. Intensive development will be discouraged in these rural areas due to the difficulty of providing cost-effective services, or because the disappearance of rural areas from the

landscape would impact the character of the county. Rural areas of Mason County should be designated as such and protected from encroachment by intensive development. Rural development and accompanying water availability, including permit exempt wells, shall be consistent with protection of natural surface water flows and groundwater recharge. Rural areas include those portions of the County that lie outside designated growth areas, master planned communities, home owner's associations, and destination resorts, and may have lower standards of infrastructure and service that reflect and maintain this rural character.

2.2 The Comprehensive Plan will include a Rural Element protecting rural character, lifestyles, and values.

2.3 Establish Level of Service Standards, timely development of essential infrastructure, and adherence to design standards for rural and urban areas.

2.4 Establish a rural land use system that provides for continued vitality of our activity centers that may become urban growth areas or incorporated communities. The categories of these areas include rural activity centers, hamlets, commercial centers, industrial areas, and tourist and recreational areas.

3: TRANSPORTATION

GMA encourages development of efficient, multi-modal transportation systems that are based on regional priorities and are coordinated with county and city comprehensive plans.

3.1 Encourage efficient multi-modal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.

3.2 Establish Level of Service standards that encourage densities in Urban Growth Areas where services such as public transit, sidewalks, car-pooling, etc., are available.

3.3 Establish Level of Service Standards, timely development of essential infrastructure, and adherence to design standards for rural and Urban Growth Areas.

3.4 Protect functions of designated high volume corridors by restricting individual access points.

3.5 Promote interconnecting street networks which provide alternative routes.

3.6 Encourage use of varied multi-modal transportation alternatives by providing bikeways, sidewalks, trails, public transit, etc., as appropriate to location and terrain, especially in Urban Growth Areas, and accommodating the young, aging and disabled.

3.7 Ensure that cooperative planning efforts continue with the Peninsula Regional Transportation Policy Organization and the County's Citizen Advisory Panel on the Transportation Improvement Program, and that policies of the County and the organization are consistent and coordinated, with the Comprehensive Plan as the guiding document for Mason County.

3.8 The County and the City and Urban Growth Area should work cooperatively with the Mason County Transit Authority (MCTA) to provide equitable public transit throughout the County.

4: HOUSING

GMA encourages the availability of affordable housing to all economic segments of the population, promotes a variety of residential densities and housing types, and encourages preservation of existing the housing stock.

4.1 Incentivize affordable housing, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.

4.2 Define and establish the need for affordable housing countywide through creation of a collaborative City/County Housing Plan.

4.3 Encourage affordable housing through innovation including infill housing incentives, variety of lot sizes, mixed use, multifamily units, and density bonuses for affordable units. Encourage affordable housing in rural areas by utilizing the supply of existing platted smaller lots which can meet applicable subdivision, environmental and building regulations, and by ensuring existing legally built lots retain their conforming status, and by allowing manufactured housing, mobile homes, micro or tiny homes and other options in both urban and rural areas. It is recognized that the techniques for encouraging affordable housing will differ in rural and urban areas.

4.4 Encourage the preservation of historic structures for use or conversion to single or multi-family housing.

4.5 As part of a comprehensive program to address affordability, examine current local regulations and policies for impacts on housing cost. Prior to adoption of any new ordinance or regulation affecting homebuilding, evaluate the impact on the provision of affordable housing options.

4.6 Affordable housing should be convenient to public transportation, major employment centers, and public services.

4.7 Affordable housing needs will be examined in both city and rural contexts. Strategies to address housing affordability will reflect local definitions of affordable housing, urban and rural values, cost and availability of land, infrastructure cost, private property rights, and broad-based citizen involvement.

4.8 The County will consider direct participation in the development and/or management of affordable and low-income housing.

5: ECONOMIC DEVELOPMENT

GMA encourages economic development that is consistent with adopted comprehensive plans, promotes economic opportunity for all citizens of the County, especially for unemployed and disadvantaged persons, and encourages growth in areas experiencing insufficient economic growth, all within the capacities of the County's natural resources, public services and public facilities.

5.1 Encourage economic development throughout the County that is consistent with the adopted Comprehensive Plan, promote economic opportunity for all citizens of the County, especially for unemployed and disadvantaged persons, and encourage growth in areas experiencing slower economic growth, all within the capacities of Mason County's natural resources, public services and public facilities.

5.2 Maintain and enhance natural resource-based industries including productive timber, agriculture, aquaculture, mining and fisheries industries. Encourage the conservation of productive natural resources, and discourage incompatible uses. Assure that adjacent land uses do not contribute to the demise of the long term commercial forest, aquaculture, and agricultural production lands and the resource based industries associated with these areas.

5.3 Establish coordinated incentives to promote economic development with respect to Vision Statements and Goals for each Urban Growth Area.

5.4 Promote economic development activities where services needed by such activities already exist or can be easily and economically provided.

5.5 Promote economic development where off-site impacts, such as transportation, can be effectively managed.

5.6 In environmentally sensitive areas, ensure land use permit processes control activities which may have a detrimental effect on public health, safety, or environment consistent with state and federal requirements.

5.7 Increase economic vitality in Mason County by stimulating the creation of jobs in tourism, trades, and other areas that provide livable wages and that promote economic diversity, stabilization, and maintenance of a high quality environment.

5.8 Support school district, post-secondary, and higher education efforts including vocational education training, and education of a highly trained, technically skilled population.

6: PROPERTY RIGHTS

GMA states, "Property rights of landowners shall be protected from arbitrary and discriminatory actions. Further, private property shall not be taken for public use without just compensation having been made."

6.1 Non-conforming uses shall be allowed alterations and expansions when appropriate.

7: PERMITS

Both GMA and Mason County express that applications for land use and planning permits be processed in a timely and fair manner to ensure predictability.

7.1 Applications for permits should be processed in a timely and fair manner to ensure predictability.

8: RESOURCE INDUSTRIES

GMA recommends Counties maintain and enhance natural resource-based industries including productive timber, agriculture, aquaculture, mining, and fisheries industries, and encourage the conservation of productive forest lands and productive agricultural lands, and provide mitigation opportunities for incompatible uses.

9: OPEN SPACE

GMA encourages the retention of open space and development of recreational opportunities. GMA further encourages conservation of fish and wildlife habitat, and increased access to natural resource lands, water and developed parks and requires mapping of open space corridors.

9.1 Designate and map open space areas in coordination with the incorporated and unincorporated areas designated as Urban Growth Areas. Criteria for designation shall include:

- provides multiple use open space
- environmentally unique and or fragile
- separates incompatible land uses
- consistency with the UGA's vision statement
- traditional cultural places and landscapes.

9.2 Provide accessible public open space and protect environmentally important areas without compromising private property rights.

9.3 Identify and prioritize open space areas, both urban and rural, which may be conserved through conservation easements, life estates, and/or conveyance to a land trust. Assure that private property rights are protected.

9.4 Encourage increased access to publicly owned natural resource lands. Protect existing public access to shorelines and water. Encourage acquisition of lands to provide additional public shoreline and water access.

9.5 Encourage retention of open space and the development of recreational opportunities like parks and public-use recreation areas appropriate for camping, hiking, horseback riding, and off-leash dog exercise.

10: ENVIRONMENT

GMA strives to protect the environment and enhance the quality of life, including air and water quality, and the availability of water.

10.1 In order to protect public health and water quality, septic systems and/or appropriate alternative disposal systems will be installed where appropriate in rural areas, according to adopted County health codes. Alternative sewage collection and treatment systems should be considered as an option when public health is in jeopardy, and or to correct environmental damage and when consistent with land use designations in the Comprehensive Plan. Development permits and/or franchises for sewage treatment systems should be granted when consistent with the Comprehensive Plan.

10.2 Mason County and the cities therein shall protect drinking water supplies from contamination, ensure that water for development is both legally and physically available, and identify and reserve future supplies.

10.3 In environmentally sensitive areas, ensure land use permit processes control activities which may have a detrimental effect on public health, safety, environment, and physical integrity of the area consistent with state and federal requirements.

11: CITIZEN PARTICIPATION

GMA encourages the involvement of residents in the planning process and coordination between communities and jurisdictions to reconcile conflicts.

11.1 Encourage the involvement of citizens in the planning process and coordinate between communities and jurisdictions to reconcile conflicts.

11.2 Mason County and the City of Shelton will maintain joint procedures for review of land development activities within the City's Urban Growth Area.

12: FACILITIES/SERVICES

GMA strives to ensure that public facilities and services necessary to support development shall be adequate to serve the development at the time of occupancy without decreasing the level of service provided.

12.1 Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time of occupancy without decreasing current levels below locally established minimum standards.

12.2 Mason County and the cities therein, shall develop, with public participation, a cooperative regional process to site essential public facilities of regional and statewide importance. The objective of the process shall be to ensure that such facilities are located so as to protect environmental quality, optimize access and usefulness to all jurisdictions, and equitably distribute benefits/burdens throughout the region or county.

12.3 Major public facilities that generate substantial travel demand should be sited along or near major transportation and public transit corridors.

12.4 Sharing of corridors for major utilities, trails and other transportation rights of way is encouraged.

12.5 Advance waste reduction efforts through support of state and federal programs, and through public information and education programs and other available, appropriate methods.

13: HISTORIC PRESERVATION

GMA states that jurisdictions should, "identify and encourage the preservation of lands, sites, and structures that have historical or archeological significance".

13.1 Support the efforts of the Mason County Historic Preservation Commission created to identify and actively encourage the conservation of Mason County's historic resources (MCC 17.40).

13.2 Identify and encourage the preservation of lands, sites, and structures that have historical or archeological significance through enforcement of regulations that implement the State's goals and objectives for historic preservation at the local level.

Objectives & Procedures

The following section of this Chapter provides objectives and procedures identified through the development of each Element of the Comprehensive Plan to help guide capital investment and land use decisions in implementing the Plan. They are organized in the order of the thirteen Countywide Planning Policies.

1. URBAN GROWTH

Objective: Assure compliance with the Growth Management Act, the County-Wide Planning Policies, the Comprehensive plan and Land Use Map in all adopted land use, environmental and development regulations and subsequent land use decisions and approvals.

1. Review and amend the Comprehensive Plan on a minimum of once every five years, and if needed on an annual basis, consistent with the requirements of the GMA. Revisions to the Land Use Map and/or implementing regulations shall be in compliance with the Comprehensive Plan policies and criteria.

2. Maintain four categories of Comprehensive Plan amendments to be considered during the annual review of the Comprehensive Plan: Policy Amendments, Map Amendments, General Amendments, Site Specific Amendments (i.e. LAMIRDS).

3. Allow submission of requests to the County for map amendments related to: errors in mapping rural densities, uses; errors in mapping boundaries of UGA's, RAC's, Hamlets; errors in mapping other LAMIRDS; errors in interpretation of criteria for land use designations.

4. Mapping errors that are clearly erroneous based on inaccurate information or technical error may be corrected at the discretion of the Board of County Commissioners within 180 days of passage of this update. Map corrections of this nature shall not require a Comprehensive Plan amendment. After the 180 days, mapping errors will be processed as part of the annual comprehensive plan amendment cycle.

5. Promote development which supports multimodal forms of transportation and pedestrian safety.

2. REDUCE SPRAWL

Objective: Encourage development in urban areas to reduce sprawl and ensure adequate public facilities and services.

6. The Urban Growth Areas (UGAs) should reflect the abilities of service purveyors to provide urban levels of facilities and services during the 20-year planning period.

7. To minimize inefficient provision of essential urban services, annexation of additional property into the UGA shall be facilitated whenever desired by property owners and when necessary for efficient service provision.

8. Annexation of unincorporated islands as they occur shall be encouraged.

9. The jurisdictions will discuss formulas and methods for amortization of sales tax benefit lost by the County after annexation.

10. The jurisdictions will discuss formulas and methods for amortization of County owned capital facilities transferred to the City as a result of annexation.

11. The County and the City shall each notify the other of any discretionary land use permit or development proposal within the Urban Growth Area or within 1000 feet of the UGA boundary. Such notification shall be adequate to provide opportunity to review and comment on such applications prior to action by the designated body of the jurisdiction.

12. All threshold determinations pursuant to the State Environmental Policy Act (SEPA) issued by the County for proposals within the UGA or within 1000 feet of the UGA, will be provided to the City. All such threshold determinations issued by the City for projects or areas within 1000 feet of the City boundary shall be provided to the County. Such notice shall be adequate to provide County staff with opportunity to review and comment on such actions prior to expiration of comment periods.

13. The County and City shall each take due heed of comments offered by the other regarding any application for discretionary land use permits being processed by the other. Each jurisdiction shall have formal standing for appeal of decisions made by the other on such matters.

SUBDIVISIONS

14. Subdivision of land shall facilitate current or eventual residential development at urban densities in Urban Growth Areas.

15. In areas within the Urban Growth Area, where public sewer and water are not available, subdivisions must be designed to allow more intensive development when such services become available. This can be accomplished on one of the following two ways:

    - Before annexation or before urban services are otherwise available at a property, subdivision shall be to urban densities. However, development may be allowed wherein non-urban services are provided on several lots in support of development on others.

    - Before annexation or before urban services are otherwise available on a property, subdivision of the property may provide for a number of lots meeting the definition of urban density while the remainder of the property is maintained as a single large lot. The large lot portion may be used to site non-urban type services such as wells and septic systems to serve development on the smaller, urban size, lots.

16. Specific improvements bringing properties subdivided in one of the ways discussed above to city standards may be deferred until City services are provided. This deferment will only be granted if, as a condition of approval of such subdivisions, an obligation to bring the property to specified city standard at that time is provided as an attachment to title.

17. Whether roads provided in new subdivisions are public or private, the layout of the roadways should support the modified grid street pattern matching up with the City. Use of cul-de-sacs should be minimized.

UTILITIES

18. When water or sewer lines are installed for use prior to connection to city utilities, the lines should be sized to meet the future system requirements and standards.

19. City Utilities may be extended to properties within the UGA either upon annexation or through the creation of a Utility Extension Agreement with the owners of properties not annexed.

20. No utility extension will be permitted to any County area within the UGA unless a Utility Extension Agreement is signed between the owner of the subject property and the City. The Agreement shall provide for the following;

    - Utility Extension Agreements will be an instrument recorded against the title of the property and the responsibilities therein shall transfer to successors in ownership of all or part of the property.

    - Extension and hook up must not result in lowering of service delivery below adopted City LOS standards. Hookups outside of the City shall not be permitted until such standards are adopted.

    - Sewer extensions will not be allowed without demonstration that equivalent will be removed from the system or a contribution to a sewer system mitigation fund is made.

    - Water hook up will not be allowed until a contribution to a source development fund is made by property owner/developer.

    - Extensions will not be permitted unless agreement is made to pay a system development charge as identified by the City in a rate study.

    - All costs for utility system extension, steps necessary to maintain LOS, sewer system removal fund contributions, water source development fund contributions and system development charges shall be borne by the property owner served.

    - All served property must have a commitment to annex when contiguous and requested by City and placed on title.

    - All utility users shall be subject to rates and surcharges as established by the City.

    - In the event that a Utility Extension Agreement is made in an area that is served by a State Department of Health approved water system, which system may continue to be operated by the present owners or their satellite management agency. Fire flow, service line size, and main size will remain until State DOH requires an upgrade for a green operating permit.

21. The following must be provided in Utility Extension Agreements extending City services to new development not vested by virtue of a complete development application;

    - City owned utilities will only be extended to land uses consistent with the City's Comprehensive Plan Future Land Use Map as determined by the City.

    - City owned utilities will only be extended to development meeting city development standards.

    - When extended to residential development, city owned utilities will only be extended to development that meets the definition of urban densities as per Joint Planning Agreement and is consistent with the policies for subdivision of land therein.

22. Urban services and facilities within the Belfair UGA that are required to meet the needs of new development should be planed to be available within ten years of the completion of development to meet the levels of services established for such services and facilities.

23. Designate a Phase 1 sewer provision area that includes the downtown core of Belfair. This area is where sewer should be provided first. Encourage urban development of mixed uses to locate there, based on provision of services, good site design and adequate transportation facilities.

24. Designate a Phase 2 sewer provisions area located outside the downtown core of Belfair. This area is intended to be provided with sewer service after Phase 1 is serviced.

25. Facilities and services in the UGAs should be sufficient to accommodate seasonal increases in population.

26. In the interim, before sewer is provided, allow mixed-use urban-level development to proceed if the proposal can demonstrate it can meet the following criteria:
    - It complies with the applicable health regulations and other Mason County building regulations; e.g. critical areas, storm water management, etc.
    - It provides a binding site plan which shows how the current proposal will be accommodated and how the remainder of the site will accommodate and not preclude urban services and densities.
    - Sewer pipelines appropriately designed for future connection to the community sewer system will be installed from the plumbed structure to the lot line.
    - A waiver of protest is given to the future formation of a utility local improvement district for the purpose of constructing sewer mains to serve the area.

27. The binding site plan for development in areas not yet served by sewer should also show how the development would address the following:
    - Buffers
    - Landscaping
    - Traffic access and parking standards
    - Height and scale in relation to surrounding uses and future uses
    - Vegetation removal
    - Storm water
    - Lot coverage
    - Compatibility with surrounding existing and future uses

28. Conduct design review of proposed development to ensure compatibility with rural character. Suggested Implementation: Use a design review board to review plans for sight development, architecture, landscaping, parking, signage, and building height.

29. Ensure that the natural beauty is not impaired nor the rural character compromised as a result of commercial development.

3. TRANSPORTATION

Objective: Encourage efficient multimodal transportation systems.

30. Subdivisions shall provide for current or eventual streets on a grid or modified grid pattern providing access to property and to adjacent properties where appropriate, consistent with urban densities.

31. Assure that new on-site development occurs to standards that do not result in future inconsistencies with City standards where UGA is adjacent to incorporated City.

32. On site development standards for sidewalks, landscaping, signage, shall be consistent with City standards where UGA is adjacent to incorporated City.

33. New subdivisions should incorporate transit facilities into their site designs.

34. Develop pedestrian ways to create safe, pedestrian friendly communities.

35. Secure traffic calming devices on SR 3 to reduce the disruption to Village life as fast traffic cuts off the uphill development from the waterfront and businesses on the east side of the highway.

36. On Harstine Island, roads should be kept as narrow as safety allows to encourage drivers to slow down. Extensive cutting of vegetation along the shoulders of property should be discouraged as it alters the character of the roadways. Numbers of roads and driveways should be kept to a minimum.

37. Continue working with stakeholders to secure full funding and subsequent construction of the Belfair Bypass so that it is operational no later than 2022.

38. Participate in transportation and economic development partnerships that support jobs and industry at the Puget Sound Industrial Center.

39. Partner with the tribes to maintain safe and convenient access for pedestrians, bicyclists, and vehicles to tribal enterprises for visitors, vendors, and employees.

40. Support transportation investments that ensure the long-term viability of the Bremerton Naval Shipyard and development of the Puget Sound Industrial Center as major employment centers for Mason County residents.

41. Collaborate with private land owners and state and federal forest management agencies to identify and upgrade County transportation facilities that are deficient in their design or operation.

42. Support the year-round transport needs of logging, aquaculture, and other natural resources that sustain the region's economy.

43. Make funding for preservation and maintenance of the existing transportation system the top priority, especially when resources are tight, because deferred preservation is expensive preservation.

44. Work with rail operators and property owners to keep at-grade rail crossings as safe as possible.

45. Identify critical gaps in transportation and access needed to ensure system redundancy for emergency management purposes and develop an implementation strategy for addressing priority deficiencies.

46. Continue to partner with the Department of the Military's Emergency Management Division and local, tribal, transit, and state governments to identify and coordinate strategies for transportation evacuation and recovery after a major earthquake, flooding, or other catastrophic event.

47. Work to improve access to and connections between transit and park-and-ride lots.

48. Secure funding for Phase 2 improvements to SR 3 through Belfair, to enhance mobility for all modes of travel and improve travel reliability between Kitsap and Mason Counties.

49. Develop strategies for unused public rights-of-way in Allyn to protect future travel options while maximizing the value of these community resources in supporting local business and residential needs today and in the future.

50. Work to integrate trails with the County's transportation system to further enhance multimodal travel opportunities in Mason County.

51. Promote activities that enhance efficient access for Mason County commuters to state ferries in Bremerton and Southworth.

52. Support MTA efforts to increase transit and vanpool ridership among Mason County commuters bound for Olympia-area job centers.

53. Partner with Mason Transit Authority and other local service providers to increase the cost-effectiveness and efficiency of transportation for rural residents with special transportation needs.

54. Support Mason Transit Authority in its design and upgrade of existing park-and-ride facilities and in the location and design of a new facility in Belfair, working to ensure safe and convenient access for MTA and the traveling public.

55. Minimize transportation-related impacts on salmon, shellfish, and other wildlife or habitats through the replacement or retrofit of inadequate facilities, reducing

and treating stormwater runoff, regularly sweeping streets to reduce runoff of waterway pollutants, and decreasing toxics and herbicides used in road maintenance.

56. Support electric vehicle charging infrastructure at park-and-ride lots and other local locations, and work with local, regional, private, and state partners to establish a robust electric vehicle charging network for the US 101 Olympic Peninsula loop.

57. Promote travel demand management and Commute Trip Reduction measures that reduce vehicle trips necessary to meet basic daily needs.

58. Improve the ability of children to walk or bike to and from school with investments and policies that promote 'Safe Routes to School.'

59. Work to accommodate LOS 'C' for peak hour congestion on all County arterials outside designated urban growth areas and LOS D for local arterials lying inside designated urban growth areas. LOS is defined in the AASHTO Greenbook.

60. Support WSDOT LOS 'C' for state highways outside of urban growth areas and LOS 'D' for state highways inside of designated urban growth areas. LOS is defined in the AASHTO Greenbook.

61. Identify and implement meaningful system performance measures that reflect the values and priorities of Mason County residents and businesses to evaluate the effectiveness of transportation policies and investments over time.

62. Work with PRTPO, Mason Transit Authority, and other affected transportation partners to monitor and implement federally required performance measures and targets.

63. Foster partnership and cooperation between tribal and non-tribal providers of public transit services.

64. Collaborate with the Squaxin and Skokomish Indian Tribes to improve access, safety, and mobility to and from tribal lands and where appropriate, within tribal lands.

65. Coordinate with school districts to enhance safe and efficient school transportation such as school bus routes, student walking routes, and crossings.

4. HOUSING

Objective: Mason County will provide opportunities for housing that are within the financial means of all of its residents, which include persons with physical and mental disabilities, and providing a reasonable opportunity to live and work in their community.

66. Support a continuum of housing and related services for homeless people and forestall growth in homelessness through prevention and intervention. This continuum of housing may include, but not be limited to Housing First programs; year-round shelters; and sanctioned tent encampments which, at a minimum, provide adequate toilet facilities, garbage collection, and access to public transportation. Services will be of sufficient number to distribute units throughout the County without overburdening any particular part of the County.

67. Promote a continuum of housing and related services for people with special needs, such as frail elderly, mentally and physically disabled persons, and recovering substance abusers.

68. Fully utilize federal and state housing programs to meet the needs of low-and moderate-income households, and the special needs population that cannot be served by the private sector.

69. Allow creative design practices that allow for residential uses in business zones, residential buildings that have shared facilities, such as single-room occupancy facilities, and micro-housing. Also allow development utilizing creative design such as tiny homes, etc.

70. In partnership with the City of Shelton, develop a set of priority housing measures to monitor housing short-fall on an annual basis as a means of evaluating the effectiveness of housing policies, goals and implementation measures.

71. When developing housing regulations, consider the balance between housing affordability, environmental quality, and design quality.

72. Identify and employ cost-effective incentives that are reasonably likely to result in an increased supply of housing suitable to the needs and income of all Mason County residents. Incentives may include, but not be limited to, smaller lot sizes, zero-lot-line design, fee waivers and exemptions, parking requirement reductions, and expedited permitting.

73. Provide for exemptions to or reductions of impact fees and/or permit fees to encourage the development of low-income housing.

74. Offer a variety of pre-approved housing designs available to developers and builders that serve to streamline the permitting process.

75. Adopt a process, consistent with the Countywide Planning Policies, for the siting of those special needs housing defined as essential public facilities.

5. ECONOMIC DEVELOPMENT

76. Evaluate the return on investment of select infrastructure projects aimed at countywide economic expansion.

77. Coordinate land use activities with the Skokomish Tribe and Squaxin Island Tribe, and tailor regulations for lands adjacent to reservation lands.

78. Align zoning and other regulations with market needs for continued growth in the industrial sector with a focus on UGAs and regional activity centers.

79. Continue to provide flexibility in the interpretation and application of zoning requirements to encourage adaptive reuse and compatible commercial/industrial development.

80. Facilitate expansion of existing business activities in Mason County, when consistent with the predominant rural character and environmental protection goals.

81. Expand local vocational training, offerings, and certifications and connect programs with local employers for maximum utility.

82. Support public-private partnerships with local education and training providers to develop an educated, skilled work force; partners may include Olympic College, WSU Extension Mason County, and the public school districts.

83. Advocate for expansion of the Olympic College Shelton Campus, and the development of relationships with County businesses.

84. Track and periodically report on the progress, results, and return on investment of specific programs.

85. Investigate specific investments that could support community livability and increase tourism.

86. Identify and market sites suitable for advanced manufacturing development.

87. Identify strategies to address transportation challenges related to Mason County's distance from interstate highways.

88. Expand marina, campground, and RV park offerings.

89. Maintain and regularly update an inventory of available properties with catalytic industrial or commercial development potential.

90. Recruit or develop pilot facilities for innovative practices in aquaculture.

91. Recruit or develop pilot facilities to augment timber processing and accelerate or incubate innovative methods and products.

92. Expand opportunities for new agricultural crops, such as industrial hemp, in an effort to preserve agricultural land.

93. Work with Washington State agencies to identify dedicated funding sources to address nonpoint pollution.

94. Work collaboratively with local jurisdictions to develop a strategic plan to address gaps in critical health and human services

95. Enhance bicycle tourism by adding signage for motorists to accommodate cyclists and painting bicycle access markers on the pavement along key cycling routes, and ensuring a regular program of sweeping and cleaning shoulders is maintained.

96. Work with Washington State Department of Natural Resources, Recreation and Conservation Office and other partner agencies to expand programming and amenities at upland camping areas and trailheads.

6. PROPERTY RIGHTS

97. Ensure that the designation of Open Space shall in no way violate or void any private property ownership rights and does not imply or create access to Open Space property.

7. PERMITS

98. Streamline code and development review processes to ensure compatibility between adjacent uses and to coordinate urban and rural transitions.

8. NATURAL RESOURCE INDUSTRIES

99. Give preference to those efforts undertaken to enhance habitat or increase fish, shellfish and other aquatic resources for the good of the general public (e.g. Department of Fish and Wildlife efforts for salmon enhancement).

100. Activities which enhance habitat or increase fish, shellfish, and aquatic resources should be encouraged as an important part of the economy and lifestyle of the area.

101. Forestry, open space, and low-density residential development should be the preferred land uses adjacent to productive aquaculture areas.

102. Establishment of a watershed/shellfish protection district or districts should be considered in order to focus all efforts on improving water quality and lessening impacts which degrade aquaculture areas; protection district funding should come out of assessments that have been raised within the watershed.

9. OPEN SPACE & RECREATION

103. Protect and preserve natural beauty and resources including North Bay, Sherwood Creek, the views and vistas of upland Allyn, and the forests and lakes to the west.

104. In the Allyn UGA, acquire small parcels of property, development rights, easements or density credits to maintain natural resources, view areas, access points to the shore and pedestrian walkways to meet goals in the plan.

105. Provide an attractive, safe, child-friendly environment for Allyn's growing local population.

106. Provide a Village Recreation Area in Allyn including a ball field and a playground area for young children

107. Develop facilities which will attract tourists and stimulate economic activity with dollars from outside the area.

108. Preserve the historic landmarks of the Allyn community, including:
    - St. Hugh's Church
    - Native American petroglyphs on the beach
    - Allyn School bell
    - Drum Street, which leads to the Port dock.

109. New development adjacent to existing or approved public parks or open space areas should provide for access to these areas from the development.

110. Encourage the improvement of shoulders along roads and old highway spurs for pedestrian, bicycle, and recreational use.

111. Develop long range trail planning with a view to 2055.

112. Coordinate open space planning with Grays Harbor, Jefferson, Kitsap, Pierce and Thurston Counties to more effectively preserve watersheds, wildlife, scenic views and recreational opportunities.

113. Where feasible, connect parks, open space parcels, wildlife corridors, trails, and educational facilities throughout Mason County.

114. Integrated trails with the county transportation system to provide or facilitate alternative modes of transportation (multimodal).

115. Encourage the development and maintenance of trails that provide access to historic, natural, recreational, cultural, and tourist-oriented points of interest and attractions, as well as other local and regional trail systems.

116. Consider providing alternative routes of circulation within local communities. Mason County shall further consider developing trails that allow users non-motorized access to various urban destinations (e.g. schools, ball fields, downtown areas, and commercial and residential districts), circulation within the local area, and access and integration with public transportation systems.

117. Consider potential and existing opportunities for trail system design and development. The County shall consider potential and existing county and other rights-of-way as potential trail sites, when feasible; take advantage of public lands and facilities; consider requiring trails and open space in commercial and residential development projects; and seek to form partnerships that foster trail development and expansion.

118. Outdoor education and recreation in the form of viewing wildlife, waterfowl and other native organisms, plus learning about and experiencing aspects of local history should be provided for County residents.

119. Special consideration should be given to Mason County's extensive wetlands resources in regard to educating the public on the importance of preserving these areas.

120. Promote environmental protection and education in its trail design and development.

121. Consider water resources as vital for the county and should utilize and promote these resources in its system of trails. Access to lakes and rivers, and fresh and saltwater activities shall be encouraged.

122. Consider trails as an essential element for quality of life.

123. Trails should be constructed to provide for the growing population of the County.

124. Trails should traverse areas of natural beauty, historic significance or other special interest but in no way destroy or degrade the naturalness or character of the surrounding area.

125. Railroad right-of-ways through Mason County are suitable corridors for open space between and within urban growth areas. Should the opportunity arise, such as through abandonment of the rail road line, then Mason County should pursue acquisition of the right-of-ways for use for trails, open space, bike trails or other suitable recreational applications. Right-of-ways should also be preserved for potential transportation purposes, rather than divided and lose utility. (adopted April 1996)

126. Consistent with the county's transportation and open space policies, the Belfair By-Pass will provide a bicycle-pedestrian trail parallel to the county road, connected to State Route 3 north of the Belfair UGA, continuing through the UGA, to re-connect with State Route3 south of the UGA.

10. ENVIRONMENT

127. Traditional plant species should be retained on development sites. Open space and building sites should contain sufficient overstory and other indigenous vegetation to maintain the forested character. Retaining trees along shorelines should be encouraged.

128. An updated soil survey should be completed to aid in land use decision-making. The survey should include the current descriptions of soil physical properties and the limitations and suitability of each soil for numerous land uses.

129. Water conservation should be reflected in development regulations, and development features such as landscaping, architecture, and storm water runoff collection and detention systems.

130. Conservation and efficiency strategies should be developed and implemented County-wide to provide the most efficient use of all water resources.

131. Conservation plans and programs should be coordinated with Grays Harbor, Jefferson, Kitsap, Pierce and Thurston Counties to ensure water resource protection measures address the needs and conditions of entire watersheds.

132. Continue and enhance County-wide education efforts on water use, conservation and protection.

133. Actively promote the concept of watershed management with respect to land use planning and the review of proposed development.

134. The volume of surface and ground water used should be limited through comprehensive conservation programs, including provisions for emergency restrictions on use, and design standards promoting efficiency.

135. Support efforts to monitor all aspects of water quality, especially for areas that have a great potential for water quality degradation/contamination (i.e. landfills, sludge disposal sites, master drain fields, etc.).

136. Protect the environmentally sensitive areas of Theler Wetlands, the Union River Valley, and the steep slopes east of SR 3 from detrimental development pressures and impacts by the designation of major portions of the valley as rural, by encouraging clustering of development on the flatter and more stable portions of the steep slopes, and by consideration of either rural designations or additional development standards for development adjacent to the Theler Wetlands.

137. Plan for and implement a program of roadside planting and maintenance that eliminates the use of herbicides for vegetation control.

PUBLIC SERVICES

138. Mason County should process permits and approvals for utility facilities in a fair and timely manner, and in accordance with development regulations that ensure predictability.

139. Provide timely and effective notice to utilities of the construction, maintenance or repair of streets, roads, highways or other facilities, and coordinate such work with the serving utilities to ensure that utility needs are appropriately considered.

140. Promote, when feasible, the co-location of new public and private utility distribution facilities in shared trenches and coordination of construction timing to minimize construction-related disruptions to the public and reduce the cost to the public of utility delivery.

141. Provide for efficient, cost effective and reliable utility service by ensuring land will be made available for the location of utility lines, including location within transportation corridors.

142. Encourage utility system design practices intended to minimize the number and duration of interruptions to customer service.

143. Promote the conversion to cost-effective and environmentally sensitive alternative technologies and energy sources.

144. Conserve the use of energy and water in the County's own facilities.

145. Ensure that all elements of the Mason County Comprehensive Plan (and the implementing development regulations) are consistent with, and do not otherwise impair the fulfillment of, the public service obligations imposed upon the utility providers by federal and state law.

CITIZEN PARTICIPATION

Objective: Citizen engagement should be a priority as part of updating subarea plans for Mason County Urban Growth Areas.

HISTORIC PRESERVATION

Objective: Areas containing potentially valuable historical/cultural features should be identified and procedures for protecting and preserving such resources should be employed.

146. Landmarks and buildings of historical significance should be preserved.

147. During development, when sites of historical significance are discovered, they should remain undisturbed until they are examined and a determination of disposition is made by the appropriate agency.

148. Public access to historical and cultural sites should ensure against negative impacts and environmental degradation. Access should not detract from the sites' significance.

149. Development in areas that contain potentially valuable historical/cultural features shall be in compliance with RCW 27.44 (Indian Graves and Records) and RCW 27.53 (Archeological Sites and Records).

150. Develop a comprehensive Historic Preservation Plan for Mason County to establish a clear understanding of historic resources and recommendations for policies for land use development protection of historic resources.

151. Integrate historic preservation and traditional cultural places and landscapes into land use decision making processes.

CHAPTER 3 – LAND USE ELEMENT

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I. INTRODUCTION

Washington State's Growth Management Act (RCW 36.70A) is a series of state statutes that were first adopted in 1990, that require growing cities and counties to develop a Comprehensive Plan that will help ensure municipal services and infrastructure are planned in a way that support projected population and housing growth while maintaining the quality of life Washington is known for. It is primarily codified under Chapter 36.70A RCW, although it has been amended and added to in several other parts of the RCW.

The Land Use Element of a Comprehensive Plan is the central document required by the Growth Management Act that directs land use patterns and guides land use decisions within Mason County. This element provides the basis for the Housing, Parks, Transportation, Utility, Transportation, Economic Development, and Capital Facility Plans because it identifies the proposed distribution of land uses and addresses other concerns such as the protection of groundwater quality and quantity, drainage, flooding, and storm water run-off and potential mitigation measures.

The Growth Management Act specifies:

> "A land use element designating the proposed general distribution and general location and extent of the uses of land, where appropriate, for agriculture, timber production, housing, commerce, industry, recreation, open spaces, general aviation airports, public utilities, public facilities, and other land uses. The land use element shall include population densities, building intensities, and estimates of future population growth. The land use element shall provide for protection of the quality and quantity of groundwater used for public water supplies. Wherever possible, the land use element should consider utilizing urban planning approaches that promote physical activity. Where applicable, the land use element shall review drainage, flooding, and storm water run-off in the area and nearby jurisdictions and provide guidance for corrective actions to mitigate or cleanse those discharges that pollute waters of the state, including Puget Sound or waters entering Puget Sound."

The Land Use Element of Mason County's Comprehensive Plan identifies the existing land use conditions throughout Mason County, projects the land requirements to the year 2036 to meet projected population growth, and determines how that growth should be most cost effectively accommodated. It is organized into the following four sections:

- **INTRODUCTION**: The Growth Management Act – the reason for the Land Use Element
- **POPULATION**: The twenty (20) year projected population growth the County will accommodate
- **EXISTING LAND USE**: The buildable lands analysis and existing zoning and demographics for the Urban Growth Areas and Rural Mason County
- **FUTURE LAND USE PLAN**: The population growth distribution throughout the County and plan for protection of critical areas, natural resource lands, historic and cultural resources, and more.

II. POPULATION

The Mason County Comprehensive Plan was developed based on both historical trends and future projections of Mason County's population. Using this information, future development demands and appropriate ways to manage land use in the county were developed.

The population projections used were prepared by the Washington State Office Financial Management in August of 2012. Additionally, the City of Shelton prepared a detailed population forecast. Mason County is required to use these population projections shown in Table 1 as a basis for developing the County's Comprehensive Plan and across all elements of the Plan.

The State Office of Financial Management projections coupled with the Shelton forecast show that the total population for Mason County will be 83,800 by 2036. This means an increase in the total population of the county by 19,300 people, or 31 percent over the 20-year period from 2016 to 2036. While an increase in population this large sounds remarkable, the historic population growth in Mason County in the 20 years from 1980 to 2000 was 58 percent. In the last thirteen years, from 2000 to 2014, the population grew an additional 28 percent.

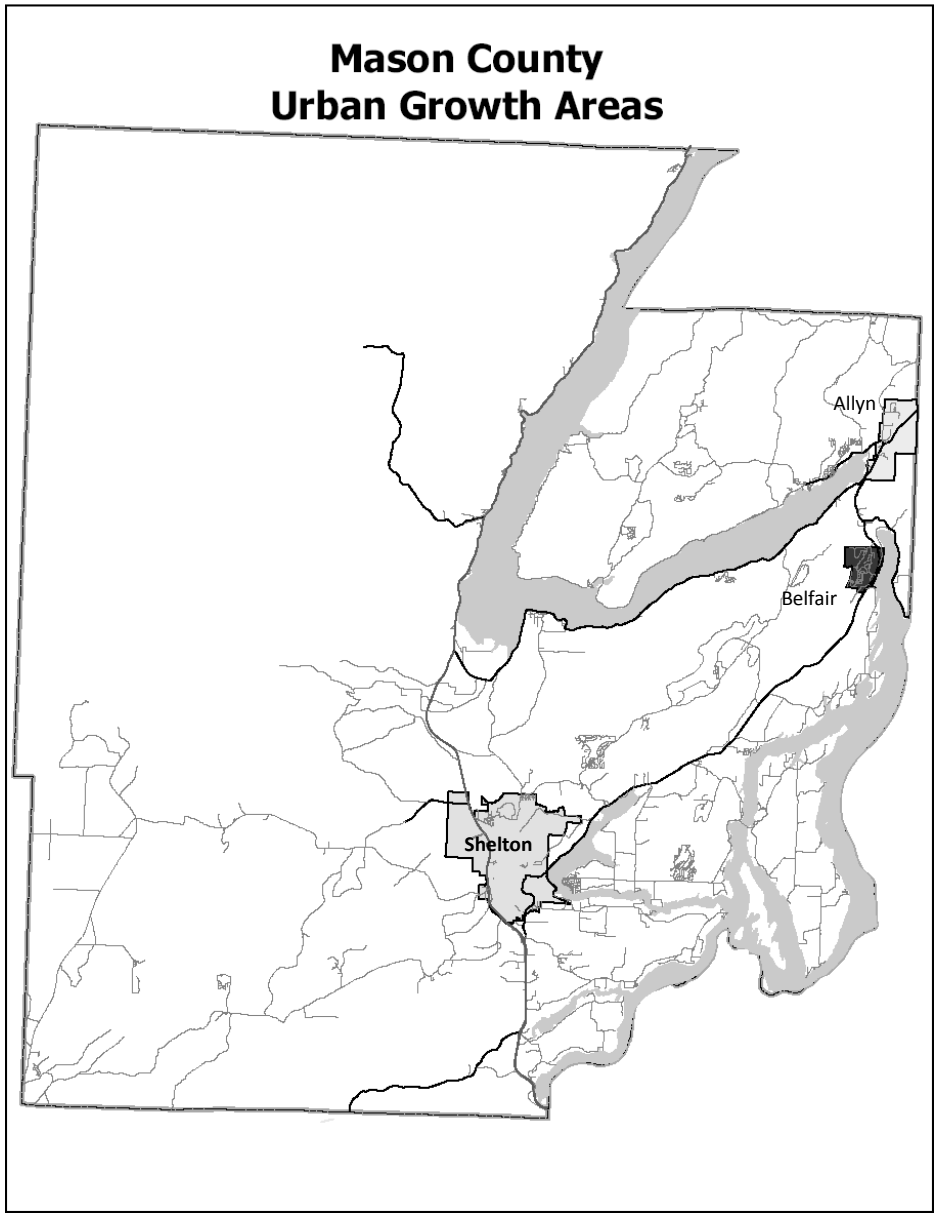
Table 1. Mason County Population Projection 2016-2036

MASON COUNTY AND URBAN GROWTH AREA 20 YEAR POPULATION PROJECTION				
	2016	**2036**	**Population Increase**	**Percent Increase 2016-2036**
Mason County Total	**62,320**	**83,800**	**21,480**	**34%**
City of Shelton	10,070	16,200	6,130	61%
Shelton UGA	3,740	7,220	3,480	93%
Urban Growth Areas (Allyn, Belfair)	2,990	4,720	1,730	58%
Rural County	45,520	55,660	10,140	22%

Source: Washington State Office of Financial Management

Figure 1. provides a map of the areas of Mason County discussed throughout this Land Use Element and referenced throughout the Mason County Comprehensive Plan. See also See the Mason County Planning Map Library available on the Mason County Website for a series of maps reference throughout the Comprehensive Plan.for a map series illustrating the land use, future land use and critical areas throughout Mason County.

Figure 1. Mason County Urban Growth Areas



A. Historic Trends

In 1970, Mason County's population was 20,918, only slightly more than one third of the County's population in 2010. During the decade of 1970 to 1980, the statewide population grew by 21 percent, or an average of 2.1 percent annually. At the same time, Mason County's population grew by 49.1 percent to reach a 1980 population of 31,184.

Table 2 and Table 3, based on data provided by the Washington State Office of Financial Management, show fairly consistent historical population growth.

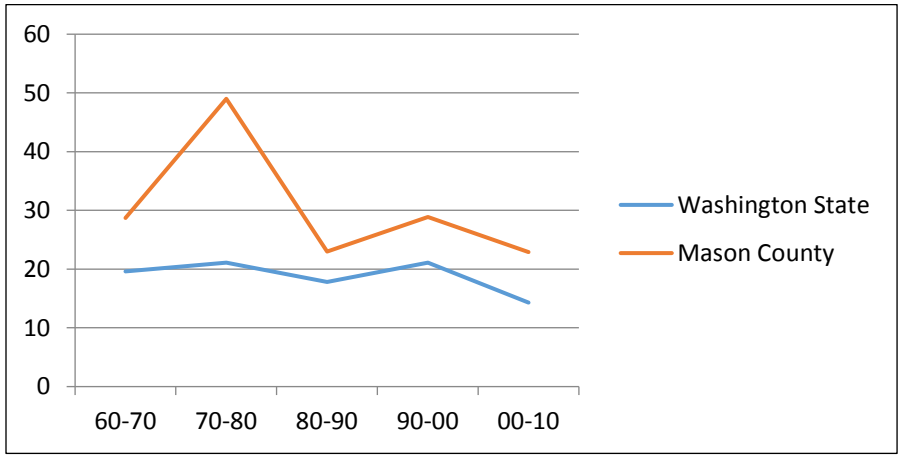
Table 2. Population by Decade – Washington State and Mason County

	Population					
	1960	**1970**	**1980**	**1990**	**2000**	**2010**
Washington State	2,853,214	3,413,250	4,132,353	4,866,663	5,884,143	6,724,540
Mason County	16,251	20,918	31,184	38,341	49,405	60,699

Table 3. Population Growth by Decade – Washington State and Mason County

	Percent Change					Average Annual Increase				
	60-70	**70-80**	**80-90**	**90-00**	**00-10**	**60-70**	**70-80**	**80-90**	**90-00**	**00-10**
Washington	19.6	21.1	17.8	21.1	14.3	1.8	1.9	1.6	1.9	1.3
Mason County	28.7	49.0	23.0	28.9	22.9	2.6	4.0	2.1	2.6	2.1

Figure 2. Population Growth by Decade – Washington State and Mason County



The decade between 1980 and 1990 Mason County experienced a slower rate of growth going from 49 percent in 1980 to 23 percent in 1990. By 2010, growth had slowed to 22.9 percent. Increases in the state's overall population have remained steady from 1960 through 2010 at levels between 1 percent and 2 percent consistently.

In April of 1996, Mason County adopted its first GMA compliant Comprehensive Plan replacing the Comprehensive Plan of Mason County from 1970 and incorporating the Southeast Mason County Subarea Plan. At that time, growth projections for 2014 were 81,102 (20,000 more than actual 2014 population). However, refinements in population forecasting methods and a larger data set have improved the ability to project and plan for population, housing, transportation and related growth over time.

B. Current Conditions

According to the Washington Office of Financial Management, growth in the state continues to be concentrated in the metropolitan areas with 79 percent occurring in the five largest counties (Clark, King, Pierce, Snohomish, and Spokane). King County had the largest portion of the state's growth with a 38 percent increase over the past year. Mason County had the fourth highest percent increase from 2000 to 2010, and fell to twenty fifth between 2010 and 2015.

The majority of Washington's population (78 percent) lives in the western portion of the State. In 2015, Eastern Washington's population grew by 0.8 percent and Western Washington by 1.5 percent. That is also a pattern of higher growth in counties along the Interstate 5 corridor compared to the rest of the state; and a similar pattern of faster growth in metropolitan than non-metropolitan counties. In 2015, 10 counties had a growth rate of more than 1 percent, three of those were non-metropolitan counties (Grant, Kittitas and Whitman). Grays Harbor and Wahkiakum counties lost population over the past year. Mason County's population stayed fairly consistent with an increase of 200 people in 2015, or 0.32 percent.

C. Projecting Future Growth

Using the historic trends and current conditions, Mason County has chosen to base it's 2016-2036 Comprehensive Plan on the State's mid-range population projection prepared by the Office of Financial Management (OFM). The decision to use the medium series projection for planning purposes was based on a recent slowing of growth rates in the county that trend toward the medium series. Growth in Mason County is still expected to experience steady growth and the City of Shelton has developed a population forecast based on recent developments and infrastructure investments that also indicate steady strong growth.

What Is Driving Growth?

Statewide increases in population have been mostly due to net migration. In 2015 there was a statewide increase of 1.34 percent due to migration, the highest since 2008. Mason County is expected to follow that trend, although it may be at a slower rate. Between 2010 and 2015, the state experienced a 5 percent increase in population, while Mason County's increase was at 2.5 percent. Technological advances make it possible to work for companies located in the more metropolitan areas along the Puget Sound corridor, while still living in rural areas. Since Mason County is in relative proximity to Olympia, Bremerton, Tacoma, and Seattle, it is a desirable location for those looking to live in a rural area while telecommuting to work in metropolitan areas.

Given that Mason County is a popular destination for retirees, the County is expected to experience a higher rate of population growth as baby-boomers continue to retire, and a higher conversion rate of seasonal residence to year round occupancy is projected. Table 4 shows the annual population growth of Mason County in the rural versus urban areas. The rate of growth in the rural areas has been slower since 2012, while the urban growth areas population has fluctuated.

D. Components of Population Change

Net Migration and Natural Increase

The main components of population change are births and deaths, "decrease" is defined as the difference between live births and deaths. "Net migration" is defined as the difference between the number of people moving into an area and the number of people moving out. Tables 5 and 6 show the impact net migration and natural increase have had on both the State's and County's populations.

Table 4. Countywide Growth/Annual Growth in Population 2010-2015

	Population						Annual Growth in Population				
Mason County	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2010-2011**	**2011-2012**	**2012-2013**	**2013-2014**	**2014-2015**
Unincorporated	44,173	44,455	44,862	45,075	45,255	45,367	282	407	213	180	112
Allyn UGA	1,971	1,976	1,988	2,001	2,000	2,003	5	12	13	-1	3
Belfair UGA	992	992	996	997	1,001	1,007	0	4	1	4	6
Shelton and UGA	13,563	13,577	13,604	13,727	13,744	13,823	14	27	123	17	79

Source: Washington State Office of Financial Management, Small Area Estimate Program, September 2015;
State of Washington 2015 Population Trends, Forecasting & Research Division, Office of Financial

Over the past 15 years, Mason County experienced more deaths than births and a lower rate of in migration (2.5 percent) decreasing the total population by 11 people. It should be noted that the State and nation experienced a recession during this same time period. The overall percentages for the State are still greater with a reduction of almost half the number of people moving to Washington from 2010 to 2015.

Table 5. Components of Population Change 2000-2010

	2000	2010	Natural Increase	Net Migration	Percent Change
Washington	5,894,143	6,724,540	380,065	450,332	14.09
Mason County	49,405	60,699	521	10,773	22.86

Table 6. Components of Population Change 2010-2015

	2010	2015	Natural Increase	Net Migration	Percent Change
WASHINGTON	6,724,540	7,061,410	184,107	152,763	5.01
MASON COUNTY	60,699	62,200	-11	1,512	2.47

Source: State of Washington 2015 Population Trends, Forecasting & Research Division, Office of Financial Management, September 2015

Seasonal Population

Mason County experiences significant seasonal fluctuations in population. Seasonal residents are not completely captured in the State population projections because their official residence may not be in Mason County. However, it is important that they be considered since there are definite increases in demand for certain types of capital facilities during the summer months when seasonal population is high and tourism is at its peak.

In order to approximate the seasonal population variation, the County has used billing addresses from both PUD #1 and PUD #3 customers. In this case, a seasonal resident is one who receives utility billings at an out of county address.

According to Mason County PUD #3 records, there are 27,730 residential households in their service area; however 21 percent of those are seasonally occupied. The billing records for Mason County PUD #1 show a total of 5,058 customers, with 54 percent of those customers considered seasonal.

Seasonal increases in population will have a number of long term impacts on the County, particularly along the County's waterfront areas. Visitors and seasonal residents contribute to peak congestion resulting from vehicle and pedestrian traffic. Seasonal population increases will also continue to place increased demands on County services. Those services, which are designed to accommodate the average and peak demands of resident populations, are often under severe stress during seasonal population peaks.

III. EXISTING LAND USE

This section of the Land Use Chapter summarizes existing and planned land use in the Urban Growth Areas and rural Mason County. Data presented in this section was compiled from the Mason County Tax Assessor's database. In addition, the National Park Service provided data related to the National Park and Forest lands, and the Squaxin Island and Skokomish Tribes provided data related to tribal lands.

A. Mason County Land Use Categories

Residential

This category includes properties that have any type of dwelling unit placed upon it, except those with an improvement value of less than $20,000. The Assessor considers properties with improvements valued at less than $20,000 as vacant. Residential uses include single family, multi family, mobile homes, convalescent centers, rooming and boarding houses, etc. In addition, this category includes personal properties that have a building (other than a dwelling unit) with an improvement value of greater than $20,000.

Rural Vacant

This category includes parcels determined vacant by the Mason County Assessor's office. Additionally, this category includes Lake Cushman leasehold properties and residential and personal property with an improvement value of less than $20,000.

Commercial

This category includes properties used for wholesale and retail trade, service industries, health care providers, and warehouses. This category also includes privately owned open spaces, such as privately owned parks and other privately owned entertainment and recreation facilities.

Agriculture/Aquaculture

This category includes all agricultural properties, tidelands, fisheries, and aquaculture related land classes.

Forestry

This category includes all properties in open space forest lands, classified forests, designated forest lands, forest-related activities, and Christmas tree farms. The Forestry category does not include Long Term Commercial Forests designated under Mason County's Resource Land Ordinance, Ordinance Number 77-93, as required by GMA.

Long Term Commercial Forests

This category includes only those lands designated as Long Term Commercial Forests under Mason County's Resource Lands Ordinance, Ordinance Number 77-93, as required by GMA.

Mineral Extraction

This category includes mining activities and mining services.

Transportation

This category includes all parcels related to transportation uses including railroads, rights-of-way, motor vehicle transportation, mass transit, aircraft runways, and parking lots.

Utilities

This category includes all parcels used for utility related purposes including communications, electrical, natural gas, water, and sewage related uses; landfills; and pipelines.

B. Mason County Land Area

This section characterizes the current land use in Mason County. The Mason County Assessor's Database provided the primary source of data for this section. It is important to distinguish land use as categorized by the Assessor from zoning. The Assessor's data is based on the parcel's actual use and taxing distinction. Zoning indicates a link to the Mason County Municipal Code, Development Regulations and helps determine what types of development are appropriate and which restrictions may apply to development.

Countywide Land Use

Mason County includes approximately 620,067 acres of land, about 972 square miles, and an additional 57,600 acres, 90 square miles of water, as shown in Table 7.

Approximately 154,080 acres of Mason County are within the boundaries of the Olympic National Park and the Olympic National Forest.

The incorporated City of Shelton occupies an additional 3,900 acres of Mason County and Tribal lands account for approximately 8,180 acres of the County. Mason County includes three Urban Growth Areas - Belfair, Allyn, and Shelton (See **Figure 1** for a map of these areas). Belfair is located in the northeastern corner of Mason County and covers approximately 2,500 acre. Just south of Belfair along the western shoreline of Case Inlet is Allyn, consisting of approximately 1,000 acres. In the southeastern region is the Shelton UGA, encompassing 5,500 acres that surround the Shelton city limits.

Table 7. Urban and Rural Land Area (Acres) within Mason County

Area	Total Acres	Percent of Total Acres
Rural Lands	387,300	63%
Olympic National Forest	154,080	25%
Waters	57,600	9%
Tribal Nations	8,180	1%
Shelton Urban Growth Area	5,500	.9%
City of Shelton	3,900	.6%
Belfair Urban Growth Area	2,500	.4%
Allyn Urban Growth Area	1,000	.1%
Total County	**620,060**	**100%**

C. Land Use in the Urban Growth Areas

Methods for Determining Land Use Acreage

By comparing two different data sets, the Assessor's data and the County zoning data, we see a clearer picture of trends in land use. It should be noted that the Assessor's data and the County zoning data are two different data sets used for different purposes. While the categories are similar, the total acreage will differ. In order to get to a general capacity for dwelling units, parcel data was first organized by current land use in accordance with the codes as provided by the County Assessor's Office. Zoning district data obtained from Mason County Geographic Information Systems (GIS) was also compiled in order to determine the number of parcels and amount of acreage in each area that is currently devoted to various land uses, land use codes were grouped into broader land use categories (i.e. Residential, Commercial, Transportation, etc.).

Table 8. Land Uses in Belfair Urban Growth Area 2015-2016

Land use	Total Acres	% of UGA	Improved Acres (building value >$20k)	% Total	Unimproved Acres (building value <$20k)	% Total	Total Acres 2005	Percent Change
Forest/Water	888	35%	33	4%	855	53%	877	42%
Vacant	584	22%	30	3%	554	34%	483	23%
Residential	499	20%	423	45%	76	5%	403	19%
Commercial	327	13%	315	33%	12	<1%	183	9%
Utilities	90	4%	79	8%	11	<1%	57	3%
Transportation	83	3%	2	<1%	81	5%	52	2%
Agriculture/ Aquaculture	67	3%	50	5%	17	1%	32	2%
Mining								
Government	8	<1%	8	<1%	0	<1%	8	<1%
Parks	4	<1%	3	<1%	1	<1%	Na	
Total	**2,551**	**100%**	**943**	**100%**	**1,608**	**100%**	**2,095**	

Source: Mason County Assessor's Office, 2015

*Assessor's data only reflects primary use of land and does not identify secondary uses like home-based businesses.

Once divided by existing land use, the zoning classification of each parcel was determined. This shows the current land use and what its potential residential use was according to its zoning district. This type of calculation and analysis was conducted for each of the districts and zones.

Belfair Urban Growth Area

Unincorporated Belfair is the primary commercial center in the Northeast corner of North Mason County. Mason County recently identified Belfair as an Urban Growth Area (UGA) of approximately 2,500 acres.

Table 9. Belfair Urban Growth Area Zoning Summary 2015-2016

Zone	Total Acres	Undeveloped Acres	Dwelling units/acres	Potential Units	Times 2.5 persons/unit
Long Term Agriculture (LTA)	17	0	1/10	1	2
Festival Retail (FR)	20	3	0	0	0
General Commercial (GC)	146	107	0	0	0
General Commercial Business Industrial (GC-BI)	146	83	0	0	0
Mixed Use (MU)	185	78	10/1	787	1967
Business Industrial (B-I)	133	59	0	0	0
Multi Family Residential (R-10)	197	158	10/1	1584	3961
Med. Density Residential (R-5)	825	716	5/1	3580	8951
Single Family Residential (R-4)	723	279	4/1	1117	2794
Totals	**2,392**	**1,483**		**7,069**	**17,675**

Source: Mason County Assessor's Office, 2015 and Mason County Zoning Map

*Assessors Data and Zoning Data are different data sets, used for distinct purposes, and define land use differently.

The current population within the UGA is approximately 1,000. However, Belfair serves residents within a larger rural geographic area as well as tourists visiting the Hood Canal and unique Theler Wetlands.

While new development is on the rise in Belfair, the town is in the midst of trying to develop a particular character or 'theme' based around the Theler Wetlands as the town's anchor. Belfair is also home to over 150 businesses located mostly along State Route 3. With the anticipated addition of pedestrian facilities, the continued development of a consistent town theme, an improved local economy, Belfair will be served as a destination well into the foreseeable future.

As shown in Table 8, forested lands and water represent the primary land use within the Belfair UGA encompassing more than 800 acres, and accounting for approximately 35 percent of the area's total land. There is also a large share of vacant land, over 20 percent in the UGA.

Belfair Buildable Lands

Table 9 shows "buildable lands" or land supply with potential for development. This data is a combination of both Assessor land use and Mason County Municipal Code Zoning Districts or the classifications that tell what types of development are permitted.

Each parcel is separated into its Urban Growth Area and Zoning District, and then identified as developed or undeveloped. Undeveloped parcels of land that are zoned for residential housing development are identified. Then average household size based on US Census Data is applied to determine persons per household. Based on this data, Belfair UGA has nearly 1,500 undeveloped acres and if developed, it has the potential to accommodate over 17,000 people.

Allyn Urban Growth Area

The Allyn Urban Growth Area is located along the upper, western shoreline of the Case Inlet in eastern Mason County (See Figure 1 for a Map). A portion of the Urban Growth Area called Lower Allyn was the original community first platted in 1889. It has a mix of residences and commercial businesses covering 385 of the 1000 acres within the Urban Growth Area. Lakeland Village, a planned residential development, makes up the largest land area and population base.

Table 10. Land Uses in Allyn Urban Growth Area 2015-2016

Land use	Total Acres	% of UGA	Improved Acres (building value >$20k)	% Total	Unimproved Acres (building value <$20k)	% Total	Total 2005	Percent Change
Vacant	698	70%	521	79%	177	52%	369	89%
Residential	110	11%	-	14%	19	6%	479	-77%
Utilities	107	11%	0		107	32%	29	269%
Transportation	38	4%	30	5%	8	2%	66	-42%
Commercial	19	1%	19	2%	0	0	167	-89%
Government	17	2%	0		17	5%	na	
Parks	7	<1%	0		7	2%	na	
Forest/Water	3	<1%	0	<1%	3	1%	137	-98%
Total	**999**	**110%**	**661**	**100%**	**338**	**100%**	**1,247**	

Source: Mason County Assessor's Office, 2015

*Assessor's data only reflects primary use of land and does not identify secondary uses like home-based businesses.

Table 11 reviews the Assessor's data with zoning to determine build out potential and shows that nearly 250 acres remain undeveloped with the potential to accommodate over 4,000 people in Allyn UGA.

State Route 3 connects Allyn to several major regional cities. Shelton is 18.5 miles to the south and Bremerton, in Kitsap County, is 16 miles to the north. The Belfair Urban Growth Area is just 4 miles north. Table 10 indicates that some land in Allyn has been reclassified since 2005, making comparisons of some land categories difficult.

Table 11. Allyn Urban Growth Area Zoning Summary 2015-2016

Zone	Total Acres	Total Undeveloped Acres	Dwelling Units/Acre	Potential Units	Times 2.5 persons/unit
Business Park (BP)	30	25	0	0	0
Highway Commercial (HC)	8	0	0	0	0
Public Open Space (POS)	5	2	0	0	0
Residential 1 (R-1)	158	87	4/1	347	867
Residential 1 Platted (R-1P)	490	45	6/1	270	675
Residential 2 (R-2)	43	3	10/1	33	84
Residential 3 (R-3)	46	38	20/1	752	1881
Village Commercial (VC)	43	3			
Residential 1 Recreational (R-1R)	200	45	5/1	223	558
Total	**1,023**	**248**		**1,625**	**4,065**

Source: Mason County Assessor's Office, 2015 and Mason County Zoning Map

*Assessors Data and Zoning Data are different data sets, used for distinct purposes, and define land use differently.

Shelton Urban Growth Area

The Shelton UGA is about 5,500 acres total. This does not include the incorporated City of Shelton. The existing land use patterns within the Shelton UGA can generally be described as containing a mix of land uses including residential, commercial, parks, resource lands and undeveloped areas. In the 2005 Plan update, residential development was the predominant land use. A review of 2016 data shows that forestry is now the primary at 26 percent of Shelton's UGA's. Residential is the second largest use, followed by undeveloped or vacant land.

Table 12.. Land Uses in the Shelton Urban Growth Area 2015-2016

Land use	Total Acres	% of UGA	Improved Acres (building value >$20k)	% Total	Unimproved Acres (building value <$20k)	% Total	Total Acres 2005	Percent Change
Forest	1430	26%	20	<1%	1410	45%	1395	3%
Residential	1109	20%	1014	43%	95	3%	1103	1%
Vacant	954	17%	34	1%	920	29%	835	14%
Commercial	672	12%	578	24%	94	3%	240	180%
Transportation	505	9%	485	20%	20	<1%	662	-24%
Government	499	9%	147	6%	352	11%	Na	
Parks	274	5%	28	2%	246	8%	Na	
Utilities	51	1%	41	2%	10	<1%	57	-11%
Agriculture/ Aquaculture	42	1%	35	2%	7	<1%	72	-42%
Mining	18	<1%	6	<1%	12	<1%	12	50%
Total	**5,554**	**100%**	**2,388**	**100%**	**3,166**	**100%**	**4,376**	

Source: Mason County Assessor's Office, 2015

*Assessor's data only reflects primary use of land and does not identify secondary uses like home-based businesses.

Table 13 reflects the Assessor's data together with zoning to show the build out and population potential of undeveloped lots in the Shelton Urban Growth Area (See Figure 1. for an Urban Growth Area Map). As shown in Table 15, there are over 3,000 acres undeveloped in the Shelton UGA with the potential to accommodate over 19,000 people.

Table 13. Shelton Urban Growth Area Zoning Summary 2015-2016

Zone	Total Acres	Total Undeveloped Acres	Dwelling Units/Acre	Potential Units	Times 2.5 persons/unit
Airport Industrial (AI)	981	79	0	0	0
Commercial Industrial (CI)	409	277	0	0	0
General Commercial (GC)	75	31	0	0	0
Industrial (I)	738	508	0	0	0
Mixed Use (MU)	309	143	12/1	1716	4290
Neighborhood Residential (NR)	2171	1508	4/1	6032	15080
Public Institutional (PI)	503	351	0	0	0
Total	**5,186**	**3,079**		**7,748**	**19,370**

Source: Mason County Assessor's Office, 2015 and Mason County Zoning Map

*Assessors Data and Zoning Data are different data sets, used for distinct purposes, and define land use differently.

IV. FUTURE LAND USE PLAN

The future land use map represents Mason County's plan to accommodate projected population growth in a way that maximizes existing infrastructure and ensures adequate public facilities and services can be provided in a way that maintains the quality of life enjoyed in Mason County. Urban type growth and development is planned for the urban growth areas, including the City of Shelton and the communities of Allyn and Belfair. A more rural development pattern for housing and a slower rate of growth is planned for the rural county. The Rural Activity Centers, or areas where you would expect to find rural commercial services and other rural community development include Union, Hoodsport and Taylor Town. The Hamlets include Bayshore, Dayton, Deer Creek, Grapeview, Lilliwaup, Matlock, Potlatch, Spencer Lake, and Tahuya. **See the Mason County Planning Map Library available on the Mason County Website for a series of maps referenced throughout the Comprehensive Plan.**

Based on historic trends, the County has estimated how the future growth in population will be distributed between Urban Growth Areas and rural Mason County.

Table 14 shows population growth projected for these areas as it relates to the total land area. The trend of faster growth in the urban growth areas that Mason County has experienced over the past decades is expected to continue through the 20 year planning horizon.

Table 14. Area Growth Projections for Mason County 2016-2036

Area	Additional Population	Share of Population Growth	Percent Total Land Area
Shelton Urban Growth Area	9,610	44%	1.5%
Belfair Urban Growth Area	430	2%	.4%
Allyn Urban Growth Area	1,300	6%	.1%
Fully Contained Community Reserve	600	3%	-
RAC – LAMIRDS	400	2%	<1%
Rural Lands	9,140	43%	63%
Total County	**21,480**	**100%**	

Table 15. Historic Population Increase and Distribution – Urban Growth Areas and Rural County

	ALLYN		BELFAIR		SHELTON		RURAL	
	Increase	**Share**	**Increase**	**Share**	**Increase**	**Share**	**Increase**	**Share**
2000-2005	460	9%	97	2%	834	16%	3943	74%
2006-2010	374	8%	81	0.10%	717	16%	3313	74%
2011-2014	21	2%	11	1%	169	19%	699	78%
2000-2014	855	8%	189	2%	1720	16%	7955	74%

Table 15 provides a detailed picture of people moving to Mason County over the past 15 years and where they chose to live.

While a greater number of people overall located in rural Mason County as shown in Tables 16 and 17, population and growth in development was and is still very concentrated in the Urban Growth Areas. The relative size of rural Mason County when compared to the size of the Urban Growth Areas is important to consider. Rural Mason County is approximately 970 square miles and the Urban Growth Areas combined are a fraction of that at approximately 50 square miles.

A. Land Capacity Summary for Mason County

The Future Land Use Map for Mason County includes designated areas for the National Park and Forest, Long-Term Commercial Forest Lands, In-holding lands, Agricultural Resource Lands, Urban Growth Areas (UGAs), Rural Activity Centers, and Rural Areas. Mineral Resource Lands are also designated, but that designation is an overlay on other districts, primarily the Forest Lands or the Rural Areas.

The Urban Growth Areas include the City of Shelton and the un-incorporated communities of Belfair and Allyn. Rural Activity Centers include Union, Taylor Town, and Hoodsport. Table 16 provides a summary of demand for residential and non-residential land in the Urban Growth Areas over the 20 year planning horizon.

See the Mason County Planning Map Library available on the Mason County Website for a series of maps reference throughout the Comprehensive Plan.

Table 16. Land Capacity Summary (Net Acres)

Area (all acres are net acres)**	**Residential Capacity**	**Non-Residential Capacity**	**Total Capacity**
Urban Growth Areas	**3,100**	**1,710**	**4,810**
- Shelton	1,650	1,430	3,080
- Belfair	1,230	250	1,480
- Allyn	220	30	250

*Exclusively non-residential

** Net acres excludes unavailable lands, unsuitable lands; 20 percent roads & 25 percent market factor

Green Diamond Resource Company Lot Retirement Project

The Green Diamond Resource Company has worked with The Trust for Public Lands to retire thousands of acres of timberland into conservation easements in the coming decades. By 2020, it is anticipated that Green Diamond will have retired more than 1,700 units of potential residential development through this conservation process.

Rural residential districts are distinguished by the minimum number of acres required for each dwelling unit (e.g. rural residential 5 require a minimum of 5 acres per unit). The total number of housing units that will be forgone was estimated to be over 1,700 based on review of the buildable land in each zoning district. The population that would have occupied those residential units by 2036 is estimated at over 4,000 people.[1]

B. Accommodating Growth and Protecting Critical Areas

Geologically Hazardous Areas

Geologically hazardous areas include areas susceptible to landslide, erosion, earthquake or other geological events. In many cases, hazards can be reduced or mitigated by engineering, design or modified construction practices. Because of their susceptibility however, some of these areas may not be suitable for new development.

Mason County's Resource Ordinance identifies three types of Geologic Hazard Areas: 1) Landslide Hazard Areas, 2) Seismic Hazard Areas, and 3) Erosion Hazard Areas. Landslide Hazard Areas are lands that have an increased potential for landslides and other earth movement. Seismic Hazard Areas are lands that are particularly susceptible to damage from earthquakes and other seismic activity. Lastly, Erosion Hazard Areas are lands that are more susceptible to excessive erosion.

Landslide Hazard Areas

A landslide is a rapid down slope movement of a mass of material such as rocks, soil, or other debris. The speed and distance of movement, as well as the amount of material, varies greatly and depends on a combination of geologic, topographic and hydrologic factors. Especially susceptible to landslide hazards are marine bluffs and unconsolidated glacial deposits on steep hillsides (greater than 40 percent).

Potential Landslide Hazard Areas are areas that meet the following criteria:

1. Areas with indication of earth movement such as debris slides, earth flows, slumps and rock falls; or
2. Areas with artificial over steepened or unengineered slopes, i.e. cuts or fills;
3. Areas containing soft or potentially liquefiable soils;
4. Areas unstable as a result of stream incision, stream bank erosion, and undercutting by wave action;
5. Slopes greater than 15 percent (8.5 degrees), except areas composed of consolidated rock, and having either of the following:
    a. Steep hillsides; or
    b. Springs or groundwater seepage.

[1] US Census Bureau, American Community Survey 5 year Estimates, 2.57 average household size for Mason County in 2014. 1700 units x 2.57 persons = 4,369.

A key indicator of potential landslide areas is slope of the land. Approximately 10 percent of the landscape in Mason County (excluding Olympic National Forest and Olympic National Park areas) has a slope of 15-30 percent, and approximately 3 percent has steeper slopes of 30-45 percent (See See the Mason County Planning Map Library available on the Mason County Website for a series of maps reference throughout the Comprehensive Plan.for the Landslide Hazard Map).

The risk of landslide occurrence depends on a number of factors including soil vulnerability, slope, and the degree of water saturation. Development activities can increase the risk by exposing soil through clearing, altering natural drainage patterns, excavating the "toe" of slopes, or increasing soil moisture content.

An important measure of potential risk for landslide when development occurs is land clearing and alteration for development. Potential impacts to Mason County can be assessed based on the relative amount of land converted to urban uses during the 20-year planning under each of the alternatives.

In addition to the critical area regulations, the Comprehensive Plan minimizes the amount of land cleared for development by directing it to the County's growth into Urban Areas. Further, options such as Master Planned Developments require clustering and open space. Both techniques reduce the amount of land disturbed by development while maintaining overall rural densities.

Seismic Hazards

Seismic Hazards occur in areas subject to severe risk of earthquake damage as a result of seismic induced settlement or soil liquefaction. These areas include soils containing high organic content (e.g., wetland soils), areas of loose sand and gravel, artificial fills, landslide deposits, and fine-grained soils with high water tables.

Seismic Hazard Areas are areas susceptible to ground failure, including the following:

1. Mapped geologic faults;
2. Deep road fills and areas of poorly compacted artificial fill;
3. Areas with artificially steepened slopes;
4. Post-glacial stream, lake or beach sediments;
5. River Deltas;
6. Areas designated as potential Landslide Hazard Areas;
7. Bluff areas;
8. Areas underlain by potentially liquefiable soils.

Seismic Hazard Areas are shown on the Mason County Seismic Hazards Map (FIGURE IV-4.2), as documented by the *Coastal Zone Atlas of Washington* and *Geology and Related Groundwater Occurrence, Southeastern Mason County, Washington, Water Supply Bulletin 29*.

All structures in Mason County are subject to the engineering and design requirements of the International Building Code for earthquakes. Seismic hazards requirements focus on effects to buildings and other facilities from intense ground shaking and/or liquefaction. Attention to seismically induced landslides could also cause structural damage to buildings, particularly on steeper slopes and shoreline bluffs. In addition, the critical area regulations do not allow significant public buildings in seismic hazard areas; and the future land use plan directs most growth away from these areas.

Erosion Hazard Areas

Erosion is a natural process in which the land surface is worn away by the action of water, wind, ice or other geologic processes. The most common cause of erosion is water falling or flowing across the land. Factors contributing to erosion hazard are soil type and slope. Erosion hazards generally occur on erosive soils where slopes exceed 15 percent.

The Mason County Resource Ordinance classifies Erosion Hazard Areas underlain by soils which are subject to severe erosion when disturbed. Such soils include, but are not limited to, those for which potential for erosion is identified in the Soil Survey of Mason County, USDA Soil Conservation Service, 1960, or any subsequent revisions or addition to that Ordinance.

The erosion process can be accelerated by development activity that exposes and disturbs soils so they are more vulnerable to erosive forces. Further, increased areas of impervious surfaces reduce the infiltration of rainfall, increase stormwater runoff, and result in even greater erosion potential. Increased runoff, erosion, and sedimentation may adversely affect the physical and biological characteristics of streams and other water resources.

Erosion Hazards are similar to Landslide Hazards in that they are both often created by, or aggravated by development activities such as clearing and grading. The comprehensive plan controls the hazards through the critical areas regulations and by concentrating development in suitable areas.

Wetlands

Wetlands are natural ecosystems that serve a number of important beneficial functions. They assist in reducing erosion, siltation, flooding, and ground and surface water contamination. Wetlands provide habitat for wildlife, plants, and fisheries. They may also assist in recharging groundwater supplies. In addition, wetlands provide opportunities for recreation and education.

Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. However, the term 'wetlands' may also include artificial wetlands intentionally created from non-wetland areas to for mitigation, if permitted by the county.

In making a determination regarding a wetland, Washington State Wetland Identification and Delineation Manual (Ecology #96-94), or as amended hereafter, shall serve as the technical resource guide on determining if an area possesses hydrophytic vegetation, hydric soils, and/or wetland hydrology.

Wetlands are classified by a rating system set forth in the Washington State Wetland Rating System for Western Washington by Washington State Department of Ecology. A four-tier wetlands

rating system has been adopted as the rating system for Mason County to protect wetlands and their critical functions. Wetland buffer widths, wetland activities, and replacement ratios are based on this rating system. These four categories include:

1) **Category I Wetlands.** Category I wetlands are those regulated wetlands that include but are not limited to rare, unique wetland types that are more sensitive to disturbance than most wetlands and that contain ecological attributes that are impossible to replace within a human lifetime. Category I wetlands score 70 points or more out of 100 on the wetlands ratings systems.
2) **Category II Wetlands.** Category II wetlands are those regulated wetlands that score between 51-69 points out of 100 on the wetlands ratings system.
3) **Category III Wetlands.** Category III wetlands are those regulated wetlands that score between 30-50 points on the wetlands ratings system.*
4) **Category IV Wetlands.** Category IV wetlands are those regulated wetlands that score less than 30 points out of 100 on the wetlands ratings system.*

* Non-Regulated Wetlands. Isolated wetlands under 1,000 square feet which are not associated with a riparian corridor, not part of a wetland mosaic, and not essential habitat of a priority species as identified by the Washington Department of Fish and Wildlife.

Mason County includes an abundance of wetland areas. Most of these areas are associated with larger freshwater and saltwater systems. Approximately 940 square miles in the County have been mapped as wetlands as documented by the National Wetland Inventory, Mason County Generalized Wetland Inventory Map. Agricultural wetlands and isolated wetlands under one acre in size are exempt from most of the regulatory requirements of the Mason County Critical Area Ordinance.

The alteration or destruction of wetlands can eliminate or reduce the variety of biological and hydrological functions that wetlands perform. Direct impacts may result from clearing, grading or filling in advance of development. Of equal potential are indirect impacts from new development, which may alter surface water flows, or interrupt the infiltration of groundwater.

New development may increase volumes of sediment-laden runoff entering wetlands. This may inhibit the wetlands' natural capacity to remove nutrients and process chemical and organic wastes. In addition, increased sedimentation within wetlands may reduce their ability to temporarily store flood waters and increase the risk and magnitude of downstream impacts.

Wetlands may also often provide groundwater recharge. Development activities in areas near or connected to wetlands in recharge areas could interrupt infiltration to the groundwater system.

The Comprehensive Plan concentrates growth to Urban Growth Areas. It also provides for permanent open space and designated natural resource areas in development allowed within Rural Areas.

Fish and Wildlife Habitat Conservation Areas

Mason County contains an abundance of marine, freshwater and upland habitat for fish and wildlife. Preservation of fish and wildlife habitat is critical to protecting suitable environments for animal species, and in providing an important part of the local quality of life for County residents and visitors.

One of the most important functions of wildlife is in maintaining the health and diversity of ecosystems. Each species has its role in an ecosystem. When a species is eliminated, the ecosystem loses the functions it performed. As a result, the balance of the ecosystem is sometimes irreversibly lost or diminished. Given the inter-relation of all species in an ecosystem, species elimination may result in unpredictable consequences, though some consequences of habitat impact are known in advance. For example, a loss of marine invertebrates and kelp from over-harvesting ultimately affects the quality of habitat for larger fish, mammals and birds.

Fish and wildlife also provide important recreational and economic benefits such as hunting and fishing opportunities. The continued prosperity of the commercial and recreational fish and shellfish industries depends on maintenance of excellent water quality and unpolluted habitats for fish, shellfish, and their food sources.

Fish and wildlife habitat also provide significant social benefits. Mason County residents are accustomed to occasional encounters with wildlife such as bald eagles, great blue heron and elk. Wildlife provides the opportunity to educate the public about biological and ecological processes. Other less quantifiable benefits include wildlife viewing, and maintaining the historical, cultural, and spiritual values of Native American Tribes and the general public.

The Mason County Resource Ordinance guides management of the County's Fish and Wildlife habitat through the regulation of conservation areas. Fish and wildlife habitat conservation means land management for maintaining species in suitable habitats within their natural geographic distribution so that isolated populations are not created. This does not mean maintaining all individuals of all species at all times, but it does mean intergovernmental cooperation and coordination is critically important in a region. In some cases, it is sufficient to assure that a species will usually be found in certain regions across the state.

The provisions for the protection of habitat cannot succeed in their purpose of supporting viable populations of fish and wildlife species unless other agencies and the public also act to protect the species. In the case of anadromous fish, the Statewide Salmon Recovery Strategy identifies that it will take a balanced approach to addressing the factors of decline that are within human control, including harvest, hatchery, habitat, and hydropower. The underlying assumption is that impacts to anadromous fish or their habitat or to fish and wildlife conservation areas shall be avoided or mitigated. Fish and wildlife habitat conservation areas include both aquatic and terrestrial areas within Mason County. The approximate location and extent of critical fish and wildlife habitat areas are displayed in the Washington Department of Fish & Wildlife's (WDFW) Priority Habitat and Species (PHS) Program database. The following categories are used in classifying critical areas:

(1) Commercial and recreational shellfish areas;

(2) Kelp and eelgrass beds; herring, sand lance, and smelt spawning areas;

(3) Naturally occurring lakes and ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat;

(4) Streams;

(5) Saltwater Shorelines, and Lakes 20 Acres and Greater in Surface Area;

(6) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;

(7) State Department of Natural Resources natural area preserves and natural resource conservation areas;

(8) Areas with which federal or state endangered, threatened and sensitive species of fish and wildlife have a primary association. Those species known to be found in Mason County shall be listed in the Resource Ordinance. Protection of species habitats is determined by the state or federal listing, and their actual presence near the site subject to review. Other listed and protected species may be found in Mason County, which are not listed.

(9) Other areas that contain habitats and species of local importance (which include juvenile salmonid migration areas) as also listed. Species of local importance may include, but are not limited to, state candidate and monitor species.

Aquatic Areas

Mason County includes three principal river systems and numerous lakes, small rivers, and streams. The Skokomish and Hamma Hamma rivers are swiftly flowing, deeply incised rivers that originate high in the Olympic Mountains and empty into Hood Canal. The East and Middle Forks of the Satsop River originate in the Olympic Mountains, converge at the southwestern corner of the County and flow southward into the Chehalis River. All of the eastern part of the County is drained by smaller streams which flow only short distances before reaching outlets to Puget Sound. Many of the small streams, as well as the larger systems, support significant fisheries, including anadromous fish. Other surface waters are made up of numerous lakes and wetland areas, some of which include Cushman, Mason, Nahwatzel, Lost, Isabella, Island, Cranberry, Limerick and Spencer lakes.

The waters and shorelines of Mason County are an important resource. In addition to their natural beauty, and cultural value, they provide the base for a sizable shellfish industry, aquaculture, fish and wildlife habitat.

Water systems are classified by the Washington Department of Natural Resources (WAC 222-16-030) and Table 17 provides a general description of water type classifications currently in use.

Table 17. Classification of Water Bodies of Mason County

Type	Description
Type"S"= Shoreline	Streams and waterbodies that are designated "shorelines of the state" as defined in RCW 90.58.030. (formerly type 1)
Type "F" = Fish	Streams and waterbodies that are known to be used by fish, or meet the physical criteria to be potentially used by fish. Fish streams may or may not have flowing water all year; they may be perennial or seasonal. (formerly type 2 or 3)
Type"Np"= Non-Fish	Streams that have flow year round and may have spatially intermittent dry reaches downstream of perennial flow. Type Np streams do not meet the physical criteria of a Type F stream. This also includes streams that have been proven not to contain fish using methods described in Forest Practices Board Manual Section 13. (formerly type 4)
Type"Ns"= Non-Fish Seasonal	Streams that do not have surface flow during at least some portion of the year, and do not meet the physical criteria of a Type F stream. (formerly type 5)

Terrestrial Areas

All development activities have the potential to impact native plant and animal species. Terrestrial Management Areas are those areas where the presence of state endangered or state threatened terrestrial species have been identified. The Mason County Critical Area Ordinance specifies that all development in these areas shall be consistent with State and Federal law.

See the Mason County Planning Map Library available on the Mason County Website for a series of maps referenced throughout the Comprehensive Plan.

There are also a number of publicly and privately managed natural areas in Mason County that have been designated as preserves or refuges. These areas are important for fish and wildlife habitat, scenic vistas, protection of sensitive plant species, and preservation of open space.

The Washington State Department of Natural Resources manages three Natural Area Preserves in Mason County. They include 17 acres at Oak Patch Lake, 28 acres on Skookum Inlet, and a 56-acre site on Totten Inlet. The Washington State Department of Fish and Wildlife manages a number of properties in the County, including the 172-acre Skokomish River Tidelands Wildlife Area and the 122-acre Union River Wildlife Area.

Mason County also includes a number of properties managed by the Hood Canal Land Trust (HCLT). HCLT is a non-profit organization that either owns properties outright or manages them under the terms of conservation easements. Key HCLT sites include the Klingall and Jimmy Bryan Wetland Preserves, 88 acres on the north side of Lynch Cove and 140 acres along the Union River under a conservation easement.

The impacts of development to habitat include the replacement of woodlands, pastures and other undeveloped areas with buildings, roads, parking lots, landscaping, and other structures. Depending on the location, density and intensity of uses, this may result in the removal and displacement of habitat and cause some wildlife

species to relocate to other areas. Since most habitats are currently assumed to be at or near their carrying capacity, displaced animals may perish.

Loss of wetlands, riparian areas and adjacent fields may affect the overall number and variety of wildlife and waterfowl. Loss of riparian vegetation could also affect migrating or nesting areas. Plant and animal species can also be affected by erosion and sedimentation of streams, coastal waters, and wetlands. Shoreline and related over-water development can harm valuable kelp and eelgrass beds.

In addition to the critical areas protections adopted by the county, the comprehensive plan promotes urban development in the County's Urban Growth Areas and rural development in the rural areas. The comprehensive plan also provides for permanent open space and designated resource areas to promote the protection, preservation, and enhancement of fish and wildlife habitat.

Critical Aquifer Recharge Areas

The State of Washington's definition of aquifer recharge areas for GMA planning purposes focuses on existing areas of supply which are vulnerable to contamination. Critical Aquifer Recharge Areas

> *"Areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge."* (WAC 365-190-030).

Groundwater exists in underground layers of porous rock or soil called *aquifers*. Water stored in aquifers reaches the ground surface through springs, wells, or by seepage into surface water features, including wetlands. Surface waters replenish, "recharge", aquifers through seepage from streams, lakes, and wetlands, and from precipitation that percolates through soil or rock.

Potable water means water suitable for drinking. Groundwater provides virtually all of Mason County's potable water. Protecting aquifers and aquifer recharge areas, therefore, is critical to maintaining Mason County's water supply. Aquifers exist throughout the County. The groundwater supplying most of the County's water is obtained from the aquifers running through the coarser and more permeable glacial and fluvial sedimentary deposits. The older, undifferentiated sedimentary deposits provide large quantities of water for industrial and municipal wells. Bedrock forms the bottom of the groundwater layer although fractures and joints in the relatively impermeable rocks may yield small quantities of water.

Precipitation provides the primary source of recharge for Mason County's groundwater. Precipitation within the County averages 64 inches annually. It increases rapidly towards the Olympic Mountains where, at Lake Cushman, precipitation is in excess of 100 inches per year. Water levels in wells are typically within 125 feet of the land surface. The quality of groundwater in an aquifer is inextricably linked to its recharge area. Approximately 24,970 acres have been mapped as Critical Aquifer Recharge Areas in Mason County. **See the Mason County Planning Map Library available on the Mason County Website for a series of maps referenced throughout the Comprehensive Plan including Critical Aquifer Recharge Areas**.

All Critical Aquifer Recharge Areas in Mason County are classified as Extremely Susceptible, Highly Susceptible, Moderately Susceptible, or Low Susceptibility as defined by the County's Resource Ordinance.

Urban development has two potential impacts on groundwater resources: 1) increases in impervious surfaces reduce the volume of precipitation available to recharge groundwater, and 2) urban development may introduce pollutants into the groundwater system. When groundwater recharge is reduced, groundwater supplies may be depleted. In many instances, this is coupled with withdrawals of groundwater in excess of recharge capacity. Potential long-term impacts include reduced capacity of water wells, reduced flows in groundwater-fed streams, and depletion of water supplies to lakes or wetlands.

Pollutants can be introduced into the groundwater system through a variety of means. They include failing septic systems, agricultural chemicals and animal waste, urban runoff, solid waste disposal, and leaking underground storage tanks.

Frequently Flooded Areas

The Frequently Flooded Areas, or Flood Hazard Areas, of Mason County are subject to periodic inundation which can result in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These flood losses could be exacerbated by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss. Mason County has prepared this flood damage prevention ordinance to implement comprehensive flood damage reduction measures that are necessary for public health safety and welfare and that allow property owners to protect their property.

Flooding in Mason County generally occurs from November through April. The greatest cause of flooding is heavy rainfall combined with snow melt. A special flood risk zone has been established for the zones A and A2 floodplain of the Skokomish River, Vance Creek and tributaries. This special flood risk zone is designated as a floodway and the entire floodway is designated an avulsion risk area. Construction of a new structure or an expansion of the square foot area of an existing structure is prohibited in this designated floodway.

The Skokomish River Valley floods several times annually. In recent history there have been large flood events in 1955, 1972, 1990, 2003, and 2007. Many homes, pastures and personal property were damaged in those years as well as lesser damage on a more frequent basis. Flooding on the Tahuya River and Goldsborough Creek have been known to cause some damage, whereas the Union River tends to have high flows, but minimal overbank flooding.

Flooding of marine shorelines is caused by a number of factors, which can occur individually or in combination. They include extreme high tides, waves generated by winds, tsunamis of distant origin, and locally generated seismic waves or boils. Wind-driven waves, superimposed on extreme high tides, represent the most common form of coastal flooding in Mason County.

Floodways, floodplains and coastal flood areas are identified by the Mason County Federal Flood Insurance Study FEMA maps.

The comprehensive plan is intended to provide for the protection of Frequently Flooded Areas by concentrating urban development on the least amount of land, considering the suitability of the land for development through the use of performance standards, and by providing for significant open space and resource use areas in development within the Rural Area.

The *County-Wide Planning Policies* call for Mason County and the City of Shelton to protect all types of Critical Areas.

C. Protecting Natural, Historic and Cultural Resources

Natural resources abound in Mason County and provide the foundation for the County's economy. While timber has played the dominant role, other natural resources including agricultural lands and minerals, have also fostered economic development within the County.

Forest Lands

Without question, timber is the foundation upon which Mason County's economy is built. Forest Products continue to be Mason County's premier natural resource industry. The early explorers marveled at the vast timber expanse in the region, describing it as "thick as fur on a dog's back." For 140 years, Mason County's extensive forests have supplied logs, lumber, building components, pulp, and other products to national and international markets.

Long Term Commercial Forest lands and Forest Products represent the primary land uses throughout Mason County and within each of its seven watersheds. The Rural Element of Mason County's Comprehensive Plan shows that there are approximately 300,000 acres of Long Term Commercial Forest and 13,500 acres of In-holding lands in Mason County. These figures do not include federal and tribal lands. Long Term Commercial Forest lands and Forestry play an even greater role in the County's land use, due to the acreage that the U.S. Forest Service maintains as well as lands forested by both the Skokomish and Squaxin Island Tribes.

Mason County currently has an abundance of forested lands with long term commercial significance. Although continued population growth will place additional demands on forest resources, these are not expected to significantly affect the County's forest resources during the 20 year planning period.

Impacts associated with forestry operations include erosion and sedimentation, noise from machinery and vehicles, fugitive dust, and the visual impacts of harvested areas. The state Department of Natural Resources is responsible for regulating these impacts. The comprehensive plan concentrates urban development on the least amount of land. It also provides for permanent open space and resource use areas in development allowed within the Rural Areas.

Historic Resources

As Mason County continues to grow, it is important that the history of Mason County be preserved. The state and federal governments have developed inventories of those sites and facilities that have special historical importance. Some of the sites are formally listed on an historical register, which provides some tax and other advantages to their owners for preserving their historic attributes. Native American tribes also have sites identified of cultural or

historical significance. The County intends to cooperate with the state agencies and the area tribes to protect historically and culturally important areas. The Countywide Planning Policies include policies guiding the county in the protection of these areas with support and oversight by the County's Historic Preservation Committee.

See the Mason County Planning Map Library available on the Mason County Website for a series of maps reference throughout the Comprehensive Plan including a map of Public and Historic Lands and Facilities identifying historic sites throughout Mason County.

Agriculture

The State of Washington's GMA guidelines define agricultural land as land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees, or livestock, and that has long term commercial significance for agricultural production. Long term commercial significance includes the growing capacity, productivity, and soil composition of the land for long term commercial production, while considering the land's proximity to population areas, and the possibility of more intense uses of the land.

Agricultural practices have taken place in Mason County since the early days of logging. The clear-cutting practices of those early logging companies opened a considerable amount of County land to agriculture, particularly to dairying and cattle raising. Crop production was limited to the growing of hay, berries and potatoes. In the eastern part of the County where the weather was milder, extensive vineyards and fruit orchards were planted. Despite its rich agricultural history, however, Mason County is not well-endowed with the resources necessary to create a strong competitive advantage for agricultural production. Consequently, agriculture's current role in Mason County's economy is relatively minor.

In 1993, there were 320 farms in operation in the County covering approximately 21,640 acres or nearly 4 percent of Mason County land area. In 2016, that acreage has declined to about 8,000 acres a loss of over 60 percent. Continued population and housing growth in Mason County is likely to increase land use conflicts between urban uses and remaining agricultural uses. As land values rise, the potential economic returns will likely increase the pressure on owners to sell or develop their properties.

Much of the agricultural land within the County is located in the rural areas, outside the UGA's.

In order to better conserve agricultural lands of long-term commercial significance, Mason County designated Agricultural Resource Lands in its Resource Ordinance. The amendments also provided for continuing protections for lands in agricultural use, but not qualified as lands of long-term commercial significance.

Aquaculture

Mason County is the largest producer of shellfish in Washington State and Washington is the top shellfish producing state in the nation. Mason County has seen an increase in shellfish farms and revenue from shellfish sales of 25 percent between 2013 and 2005, based on the US Aquaculture Census.

Shellfish farms are significant contributors to Mason County's. Shellfish farming is the second largest employer in Mason County, Washington with over 70 farms generating $32 million in revenue annually. Shellfish also do their part to reduce the trade deficit. Shellfish grown in Mason County are exported around the world, bringing in millions of dollars from foreign countries each year directly benefitting our local economy as well as federal and state economies.

Shellfish production requires a healthy, functioning ecosystem to provide safe water quality and appropriate quantities of phytoplankton for food. Scientific research indicates well-managed shellfish farming can improve water quality, species diversity, and habitat complexity.

In order to better support shellfish production, Mason County has adopted its Shoreline Master Program and Resource Ordinance. These policy documents provide for continuing protections for aquaculture lands and the watersheds that feed into these lands.

Fish, crustaceans, mollusks, and other aquatic products which are caught or harvested by the public from non-controlled waters or beds are considered wild caught and are not included as aquaculture. Mason County has 25 public access beaches for shellfish harvesting and maintaining and enhancing this access remains a priority.

The shellfish industry across the state of Washington, including business owners in Mason County, have developed recommendations to support shellfish (Washington Shellfish Initiative):

1. Establish a state shellfish aquaculture coordinator
2. Create a centralized mapping and data tracking portal
3. Develop consistent, practicable, and effective best management practices
4. Address overall permit timeliness
5. Continue outreach to growers
6. Provide technical assistance to local government
7. Assess permit compliance
8. Reduce redundancies and improve interagency coordination
9. Devote funding to support shellfish aquaculture permitting
10. Designate a lead state agency to manage shellfish aquaculture

Voluntary Stewardship Program

In 2012, Mason County elected by a vote of the Commission to opt in to the Voluntary Stewardship Program as established under Ruckelshaus Process Bill and codified in RCW 36.70A.700. This program is intended to promote local plans that protect and enhance critical areas within areas where agricultural activities are conducted, while maintaining and improving the long-term viability of agriculture in the state of Washington and reducing the conversion of farmland to other uses. These plans establish voluntary incentive programs that encourage good riparian and ecosystem stewardship, protect water quality and fish habitat, and discourage the cessation of agricultural activities.

In 2015 Mason County entered into a contractual agreement with the Washington State Conservation Commission to receive funding for the Voluntary Stewardship Program Workplan Development to be complete by 2017.

Mineral Resource Lands

The State of Washington's GMA guidelines define mineral resource lands as lands primarily devoted to the extraction of minerals, or that have known or potential long term significance for the extraction of minerals. Minerals include gravel, sand, and valuable metallic substances.

See the Mason County Planning Map Library available on the Mason County Website for a series of maps referenced throughout the Comprehensive Plan including Mineral Resource Lands identifying locations of known and potential mineral resources. The mineral resources identified on the map are based primarily on soil types identified by the SCS in the *Mason County Soil Survey* and the Department of Ecology in the *Coastal Zone Atlas of Washington*. It should be noted that many of the soil characteristics which increase an area's potential as a source of mineral resources also increase its potential for aquifer recharge.

Mason County contains a large supply of construction aggregate (i.e., sand and gravel). There are three remaining, undeveloped, large sources of high-quality sand and gravel located in close proximity to the waters of Puget Sound, such that materials can be transported from the site by barge to water-dependent metropolitan construction aggregate markets also located on the Puget Sound tide lands. Two of these large deposits of aggregate are located in Mason County. They include the proposed Hamma Hamma site at Eldon on Hood Canal, and the permitted Johns Prairie site north of Shelton on Oakland Bay. Both Mason County sites contain a high-volume source of high-quality sand and gravel. These resources are suitable for processing into a wide variety of finished construction aggregate classes, all meeting government and ASTM (American Society for Testing and Materials) specifications.

Mason County has nineteen operating surface mines at the present time, approximately 2,220 acres considered as active permitted mines according to the Department of Natural Resources. The Resource Ordinance protects mineral resources lands for the future use of these areas for mineral resource extraction.

Continued population growth may place additional demands on local mineral resources. Impacts associated with mineral extraction include erosion and sedimentation, noise from machinery and vehicles, fugitive dust, and the visual impacts of excavated areas.

Open Space

There are three kinds of open space land: private, common use, and public open space. Private open space includes farms, forest lands, and other parcels of undeveloped land. Common use open space is land within a residential development or other development that is designated for common access by the residents of the development or by the general community. Public open space is publicly-owned land available for recreational use of the entire community. Open water areas, such as the Hood Canal or lakes, is also often considered as open space because it creates a sense of openness.

Open space land is valuable to the community for a number of reasons. It can provide recreational opportunities, it is aesthetically pleasing, it enhances the quality of life in urban areas, and it increases property values. It creates natural boundaries, which can act as greenbelts and define neighborhood identity and can protect natural resources such as groundwater recharge areas, streams, soils, tidal areas, agricultural areas, and wildlife. Open space often provides habitat areas for wildlife.

Open space land is an essential component of rural character. Without adequate open space, the land will not appear rural. Rural

character is discussed in the Rural Element of Mason County's Comprehensive Plan.

Mason County enjoys extensive open spaces. In addition to the Olympic National Park and Olympic National Forest, there are significant tracts of state owned or privately held timber. Farmlands in river valleys, particularly the Skokomish, also are open space lands. A detailed listing of park and recreation facilities in the County is presented in the Capital Facilities element of the Mason County Comprehensive Plan.

See the Mason County Planning Map Library available on the Mason County Website for a series of maps referenced throughout the Comprehensive Plan including existing and planned Open Space and open space corridors in Mason County.

Projected growth in Mason County is likely to increase the pressure for conversion of existing open space to urban uses over the next 20 years. As land values rise, the potential economic returns will likely increase the pressure on owners of larger tracts of undeveloped land to sell or develop their properties.

The Comprehensive Plan provides for the preservation, protection, and enhancement of open space . It does this by directing substantial population and housing growth into Urban Growth Areas. Also, the comprehensive plan provides for incentives to cluster development, as well as requiring the preservation of open space in some situations. It should be noted that if the incentives for rural clustered development are implemented, tens of thousands of acres could be preserved as open space. Both techniques are intended to preserve open space including: Long-Term Commercial Forest lands, Agricultural Resource Lands, local parks, state parks and other state lands, the Olympic National Park and the Olympic National Forest, land slide hazard areas and their associated buffers, flood ways, streams and their associated vegetation area, wetlands and their associated buffer areas, lands preserved as part of a clustered development plan, lands preserved as part of the designation of a master planned resort, and major utility corridors.

Additionally, cluster development policies could result in tens of thousands of acres preserved as open space across the County. Undeveloped land, non-designated forest lands and non-designated agricultural lands may also function as open space.

Master Planned Communities

Master Planning is a new tool for accommodating population growth in Mason County while protecting the resources of Mason County. It requires the implementation of additional design and performance standards for all aspects associated with development of the site, including protection of the environment and natural features, construction of utilities and roadways, and site construction. Low Impact Development (LID) techniques shall be incorporated into all Master Development Plans. LID is a land use development strategy that emphasizes protection and use of on-site natural features, integrated with engineered, small-scale hydrologic controls at the parcel and subdivision scale to manage stormwater and more closely mimic predevelopment watershed hydrologic functions.

Master Development Planning in Mason County is intended to facilitate long range, predictable and innovative development possibilities on large tracts of land. A Master Development Plan allows larger properties with unique characteristics or circumstances benefit from more detailed and thorough planning of

future development to accomplish desired land development over a multiple year and phased term. A Master Development Plan provides a common and interrelated development theme within the boundaries of the Master Development Plan, while ensuring its integration and compatibility with the surrounding community and land uses.

The intent of a Master Development Plan is to: preserve unique, fragile, and environmentally critical areas; provide efficient use of the land and infrastructure; implement low impact development techniques; promote innovative, quality design; and provide for the inclusion of on-site amenities such as open spaces, community facilities, enhanced landscaping, and recreational opportunities. Uses allowed within the Master Development Plan should be consistent overall with those uses allowed within the base land use districts, provided that a Master Development Plan may allow for more flexibility in density, the location of uses and development standards in a manner consistent with the intent of the base land use district. A Master Development Plan allows for a mixture of residential and non-residential land use development types, such as clustering of single-family residential dwellings, attached residential units, zero lot line development, public facilities, and commercial and office uses.

A Master Development Plan shall be applied through the Mason County Development Regulations and be accompanied by a Development Agreement.

Separate provisions are necessary that address unique conditions when locating a Master Development Plan within an Urban Growth Area or within lands designated rural. A Master Development Plan could also be appropriate for areas adjacent to but outside existing Urban Growth Boundaries. When a specific location is identified for within Mason County, a Master Development Plan will be required to demonstrate consistency with the Comprehensive Plan and RCW 36.70A.35.

Master Development Plan Policies

1. **LAND USE.** Adopt regulations to guide the location and sitting of Master Development Plans within rural and urban areas, consistent with policy direction contained throughout the Comprehensive Plan. These regulations shall:

   1.1. Clarify that a Master Development Plan is appropriate for large contiguous areas of land under common ownership or control, with common characteristics and connectivity. Include criteria for when and where a Development Master Plan may be appropriate within rural lands and within urban growth areas.

   1.2. Require a Master Development Plan pursuant to RCW 36.70A.350.

   1.3. Require that adequate road, water, drainage, sewer and/or septic capacity exist or is planned to meet the demands of the proposed development within the Master Development Plan. Consider alternative standards for utilities and roads that address rural and urban character and utilize low impact development techniques in harmony with the unique environmental characteristics of the area.

1.4. Provide transportation circulation that addresses public service and emergency response requirements and the needs of pedestrians and bicyclists.

1.5. Encourage flexibility in design to promote a variety of housing types, densities, and affordability. Accommodate a mix of commercial, retail and residential uses, as well as opportunities for social and cultural expression while preserving the areas natural features. Individual lot sizes should vary in a Master Development Plan to promote a range of housing options and the preservation of unique and fragile environmental features and critical areas.

1.6. Provide levels of service compatible with the project's location, development intensity and the surrounding lands uses. Proposed Master Development Plans in rural areas shall not require urban services.

1.7. Allow for increased density and/or a reduction in dimensional standards within the Master Development Plan when enhanced on-site amenities are incorporated into the overall development, such as open spaces, community facilities, landscaping and buffers, recreational opportunities, and other similar amenities that benefit the community and the environment and exceed the existing minimum requirements.

1.8. Include a process to allow phased development within the Master Development Plan in an orderly, coordinated, and thoughtful manner. The phasing plan for the development shall demonstrate that the various segments of the development are served by adequate public facilities and services.

1.9. Promote the incorporation of LID techniques in the development and management of the area within the Master Development Plan.

1.10. Include technical guidance on the use of LID techniques in public and private developments within the Master Development Plan. These techniques shall:

i. Preserve the site characteristics, including natural terrain, drainage patterns, soil structure, and native vegetation;

ii. Preserve the natural hydrologic cycle, including vegetative rainfall interception and evapotranspiration, and groundwater infiltration and percolation to the extent the subsurface conditions permit;

iii. Mimic natural rainfall capture capacity in areas of site disturbance, and ensure the protection of property and public safety in the design of overflow capacity, and

iv. Incorporate measures to manage stormwater within the Master Development Plan that will enhance water quality downstream.

1.11. Require all Master Development Plans to include specific design guidelines and development standards to ensure that the proposed development promotes community identity, has a consistent theme, and is integrated and compatible with its surroundings.

2. Water & Sewer Utilities in Master Development Plans.

Water and sewer utility infrastructure in master development plans shall be designed with quality components, and to be operated and maintained efficiently.

2.1 Potable water service shall be consistent with coordinated water supply plans for urban growth areas (UGAs), and provide through community-based systems for planned developments in rural areas. Such rural systems should preferably be operated and maintained by a public entity with authority to operate in the proposed area.

2.2 To the extent available, Master Development Plans should utilized reclaimed water supplies in addressing non-potable water demands.

2.3 Development within a UGA shall plan for wastewater service consistent with sewer service plans for the UGA and current development standards and the costs for capacity borne by the development.

2.4 Clustered development is encouraged to maximize the efficiency of wastewater service provisions, taking into account the proximity to connection outside the development.

2.5 Development in future phases of a Master Development Plan that will be served by wastewater collection and treatment shall be planned to facilitate future connection to a public system with attention to the location of those lines in public rights of ways or easements that will ultimately be the responsibility of the sewer service provider.

2.6 Development in areas not planned for future public sewer service shall provide community-based collection and treatment systems, preferably maintained by a public entity, consistent with the best available knowledge of hydrogeologic connectivity and the potential impacts to surface and groundwater resources.

2.7 Development shall address the storage location and collection of solid waste and recyclable materials. In UGAs, developments shall facilitate curbside collection of solid waste and recyclable materials.

3. **Parks & Recreational Facilities in Master Development Plans.** Improvements and phasing in a Master Development Plan shall address adequate passive and active parks and open spaces consistent with the standards in the County-Wide Parks Plan.

3.1 Parks and other recreational or trail facilities shall be designed and developed consistent with industry standards for quality of materials, safety and efficient operations and maintenance.

3.2 Master Development Plans shall include connections to future or existing open space corridors and trail connections, with internal community circulation.

3.3 Master Development Plans with access to surface water amenities shall incorporate access for residents and visitors outside the proposed development.

D. Protecting Water Quality and Reducing Runoff

Mason County has an abundance of marine and freshwater areas that include Puget Sound, Hood Canal, and thousands of rivers, streams, lakes, ponds, and wetlands. Surface water flows in the County result from precipitation. Precipitation occurs year round. It tends to be particularly heavy during the months of November through April, when heavy rainfall at the lower elevations combines with seasonal snowmelt in the mountains.

Mason County's drainage system for surface runoff is characterized by thousands of small tributaries which form the several hundred streams and rivers that eventually make their way into Hood Canal, Oakland Bay, Totten Inlet, Skookum Inlet and Case Inlet. Some of the larger of these rivers include the Skokomish, Union, and Tahuya Rivers.

See the Mason County Planning Map Library available on the Mason County Website for a series of maps referenced throughout the Comprehensive Plan including Water Mitigation Planning Areas.

Mason County's natural drainage system contains hundreds of lakes and ponds that further help to moderate the effects of surface water storm flows. The largest of these include: Lake Cushman, Mason Lake, Cranberry Lake, Lake Limerick, and Lake Nahwatzel.

Mason County has done a significant amount of planning related to stormwater management and water quality. The County has cooperated with the adjoining counties, tribes and the state to develop specific watershed management plans and implemented water quality protections in several significant ways. For example, the County created a clean water district and stronger on-site septic system controls including an operations and management ordinance. Sanitary sewer systems have been constructed in the the North Bay - Case Inlet area as well as in the Belfair Urban Growth Area to improve water quality in those areas. The county also adopted the "Skokomish River Comprehensive Flood Hazard Plan" to identify means of managing flooding problems.

Mason County's management of stormwater is primarily regulatory. The Puget Sound Water Quality Management Plan requires all counties and cities within the Puget Sound drainage basin to adopt ordinances to control runoff from new development and redevelopment. The plan directs local governments to adopt the stormwater programs which include minimum requirements as developed by the Department of Ecology. The County created and adopted the Storm Water and Surface Water Utility and Stormwater Management Ordinance incorporating the minimum requirements of the most current edition of the Department of Ecology's Stormwater Manual. These address many of the stormwater concerns by requiring appropriate design and best management practices for new development or redevelopment for both water quantity and quality.

See also the Utility Element of the Mason County Comprehensive Plan for more information about stormwater management.

The City of Shelton has provisions for stormwater management in its Comprehensive Plan and city ordinances. The Capital Facilities Element and Utilities Element of the City's Plan discuss existing provisions and the need for continued joint planning between the city and the county to coordinate stormwater management in the urban growth area.

New development almost always results in the clearing of vegetative areas and increases in impervious surfaces. The purpose of the plans and ordinances discussed above is to remove or minimize the impacts that can be caused by development through implementation of Low Impact Development (LID) practices, or stormwater management techniques designed to mimic natural processes. If not appropriately designed using these LID techniques, urban development can result in the impacts of increased soil erosion and sedimentation during and after clearing; encroachment into streams and wetlands; alteration of stream courses; and loss of critical habitat. Urban development can result in nonpoint pollution of surface waters. Increased runoff from development may also increase the incidence of downstream flooding and erosion.

This Land Use Element includes policies and designated districts requiring clustering of development and preservation of open space. Both techniques reduce the amount of land disturbed by development while maintaining overall rural densities. The open space design provides additional protection to wetlands, floodways and streams.

The *Countywide Planning Policies* call for Mason County and the City of Shelton to provide for the protection of water quality and address public education, stormwater management, and watershed management.

CHAPTER 7 – UTILITIES ELEMENT

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I. EXISTING CONDITIONS

Washington's Growth Management Act requires that County Comprehensive Plans contain a Utilities Element. The purpose of the Utilities Element is to ensure that utility services provided by both public and private suppliers are consistent with the County's Comprehensive Plan and can support the community's growth and development as anticipated over the 20 year planning period.

The Utilities Element must include an inventory of the general location of all existing and proposed utility facilities and a description of the current capacity and expected future capacity of each utility. This Plan identifies ways of improving the quality of these services and includes policies that ensure a provision of utilities is coordinated with land use. Mason County will implement these policies through its agreements with the utilities and through the land use permit process.

This Element of the Mason County Comprehensive Plan is based on the same assumptions and is consistent with the Land Use Element, which establishes the overall growth strategy for the County and its Urban Growth Areas. The system design and timing for extension of utility services supports the land use pattern and policies proposed throughout the Comprehensive Plan.

The level of service standards established for public utilities determines capital facilities costs and revenue analysis in the Capital Facilities Element and provides a foundation for analysis of the existing utility delivery system and proposed improvements which are necessary to meet the changing demands in six primary areas including:

- Electricity
- Natural Gas
- Solid Waste Management Systems
- Telecommunications
- Utility pipelines
- Water

Water, sewer, storm water and solid waste, which are also often considered as utilities, are also discussed in the Capital Facilities Chapter VI.

Appendix A includes a map showing the general location of existing or proposed utility districts, major electrical transmission lines, electrical distribution substations, natural gas pipelines and service areas, telecommunications service areas, cellular communication tower sites.

A. Connecting Land Use and Utilities

Gas, electricity, and telecommunications in Mason County are each tied into a regional system, where local capacity depends on regional capacity. The greatest growth in demand for services will be in the urban growth areas, which are near major transmission lines.

Many land use policies that address rural areas provide for clustering of development. Neighborhood distribution needs will have to be met, but this type of development allows for more efficient provision of utilities and services. By encouraging clustering of rural development at the scale of the rural activity centers and community centers, or at the scale of an individual clustered subdivision, local distribution costs should be reduced.

Growth is also focused in the designated Urban Growth Areas of Shelton, Allyn and Belfair and within fully contained communities in rural Mason County. It will be most cost effective to provide utility services to these urban development patterns and more cost effective for residents as well. For example, an analysis of electricity rates conducted by the Northwest Power and Conservation Council shows that the wholesale cost per megawatt-hour is not significantly different for customers in rural vs. urban areas. On the other hand, Retail electricity prices in rural communities tend to be somewhat lower than urban areas. This is primarily due to the fact that most rural areas of Washington State are served by not for profit electrical utilities, such as electric cooperatives or public utility districts.

The limited availability of natural gas heating in rural areas means many rural customers use electricity for heating which contributes to the difference in energy use.

Private utility providers in Mason County project and plan for growth. The Mason County Comprehensive Plan will be a resource for each of these providers that will assist in determining the longer-term need for service expansion and new facilities.

II. REGULATORY CONTEXT

Most development requires public and private utilities, whether it is residential, commercial, industrial, or agricultural. Public utilities in Mason County generally include: water, sanitary sewer systems, stormwater management systems, and solid waste management systems. Washington State Department of Health and local Health Departments define approved water systems serving more than one residence as "public" even though these systems may be owned and operated by a private person or company.

In Washington State, electricity is also often a publicly owned utility. This is true in Mason County where two public utility districts, PUD No. 1 and PUD No. 3, provide electricity services. In addition to electricity, PUD 1 manages a number of water systems in Mason County. In addition to electricity, PUD 3 operates a wholesale telecommunications network in Mason County. The public utility districts, authorized by RCW 54, are governed by elected boards of commissioners. All decisions regarding rates and policies are made at the local level.

Private utilities in Washington State including CenturyLink, iFiber One, Wave, and Cascade Natural Gas are regulated by the Washington State Utilities and Transportation Commission (WUTC). These public and private utilities and water and sewer systems are also discussed in the Capital Facilities Element of the Plan, Chapter VI.

A. State Regulations

Investor-owned utilities are regulated in Washington by the Washington Utilities and Transportation Commission (WUTC). WUTC is empowered by Title 80 of the Revised Code of Washington (RCW) to regulate electricity, gas, irrigation, telecommunications, and water providers. State law directs the commission to regulate the rates, charges, services, facilities, and practices of the utilities. Any change in customer charges or service provision requires commission approval.

The WUTC, under Title 81 RCW, also regulates the rates and safety practices of the transportation of solid waste (garbage), intrastate petroleum and gas products via pipeline, and scheduled auto transportation services.

B. Federal Regulations

The Federal Energy Regulatory Commission is an independent five-member commission working with the U.S. Department of Energy. The Commission regulates the interstate transmission of natural gas, oil, and electricity, as well as licensing natural gas and hydropower generation projects.

The Federal Communications Commission regulates interstate and international communications by television, wire, satellite, and cable. An independent U.S. government agency overseen by Congress, the five-member commission is the United States' primary authority for communications laws, regulation, and technological innovation.

III. PUBLIC AND PRIVATE UTILITIES

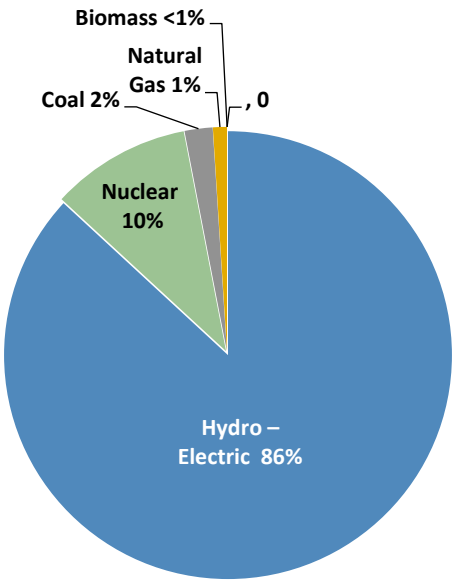
A. Electricity

Public Utilities District No. 1 and Public Utilities District No. 3 provide electrical power to residents of Mason County. Both districts purchase power marketed by the Bonneville Power Administration and distribute it to their customers. Neither public utility district has large-scale power production facilities. The Bonneville Power Administration and the City of Tacoma have transmission facilities in Mason County.

The City of Tacoma also has an electrical generation facility near Hoodsport, which uses water drawn from Lake Cushman. It does not provide local service in Mason County.

The electrical power for Mason County is supplied through a regional transmission grid (which is the interconnected network of transmission lines and other supporting equipment) at 500,000 volt and 230,000 volts from 31 federally managed dams in the Columbia River Basin, and a nuclear power plant in Kennewick, Washington. Transmission to Mason County is through the Olympia Transmission Substation through 115,000 and 230,000 volt power lines which go to the BPA Shelton Transmission Substation, where service is split to serve East and West of the Hood Canal. The Mason County Urban Growth Areas are served by 115,000 volt power lines. The network connects to the PUDs through switching stations and then to distribution substations. The electrical power carried by the high voltage lines is transformed to lower voltages for distribution to PUD's neighborhood distribution substations and on to the user. Both PUDs provide annual capital improvement programs either directly from user revenues, or from the sale of bonds which are redeemed by user revenues.

Figure 1. Current Fuel Mix for Electricity in Mason County



Public Utility District No. 1

Mason County PUD No. 1 became the first operating Public Utility District in the State of Washington when voters approved a proposition on November 6, 1934. Mason County PUD No. 1 is publicly owned and serves approximately 4,770 electric customers.

The electric service area for Mason County Public Utility District 1 (PUD No. 1) begins approximately one mile west of Twanoh State Park, on the south side of Hood Canal, and extends approximately 50 miles along the Canal to the Mason/Jefferson County line.

PUD No. 1 also serves into south Jefferson County up to Walker Mountain The district encompasses several river valleys including the Skokomish, Lilliwaup, Hamma Hamma, Duckabush and Dosewallips. PUD No. 1 serves power to the communities of Lilliwaup, Hoodsport, Potlatch, Union, and the Skokomish Indian Reservation. PUD No. 1 provides water services throughout all of Mason County. Both PUD 1 and PUD 3 have a memorandum of understanding that allows PUD No. 1 to provide water/wastewater services in PUD 3's service territory and PUD No. 3 may provide telecom services in PUD 1's service territory.

In 1993, PUD No. 1 supplied a total of 58.7 million kilowatt hours to customers within the service area and in 2016, PUD No. 1 sold 73.1 million kilowatt hours, an increase of 25 percent.

The district purchases power from the Lilliwaup Falls and Rocky Brook Hydro Facilities, with the remainder of their energy provided by Bonneville Power Administration. PUD No. 1 has substations located at Potlatch (T3ba'das), Duckabush, Hoodsport, and Union.

Public Utility District No. 3

Mason County PUD No. 3 provides electrical power to all areas of Mason County except those serviced by PUD No. 1. In 1993, PUD No.3 provided electrical power to approximately 24,400 customers. That service population has risen to nearly 33,000 in 2016. Similarly, in 1993, PUD No. 3 supplied a total of 493 million kilowatt hours and in 2016, over 610 million kilowatt hours are being supplied.

Mason County PUD No. 3 is a full-requirements customer of the Bonneville Power Administration (BPA), meaning that BPA provides all of the District's power requirements at cost-based rates. PUD No. 3 takes delivery of BPA power at eleven substations, ten of which are owned by the utility. It has 1,777 miles of primary lines and owns and operates 29.80 miles of 115 kV transmission lines.

PUD 3 also receives small amounts of electricity from the Nine Canyon and White Creek wind farms, and Packwood Lake Hydroelectric Project. The PUD owns a 5.4 megawatt natural gas-fired generator (Olympic View Generating Station) located on Highway 102 near Shelton. The station is powered by reciprocating natural gas engines. The generator was used during the 2001 energy crisis to reduce energy demands. It is kept on standby for potential demand reduction, backup, reduction of Bonneville Power Administration transmission congestion on the Olympic Peninsula, or load shedding during times of high power demands in the region.

The PUD is subject to the Washington State Energy Independence Act (Chapter 19.285 RCW), which establishes a renewable portfolio standard with renewable energy targets as a percentage of customer load. The targets have increased over time, from 3 percent in 2012, to 9 percent in 2016, to 15 percent in 2020. Eligible resources include water, wind, solar energy, geothermal energy, landfill gas, wave, ocean or tidal power, gas for sewage treatment plants and biodiesel fuel and biomass energy. Electricity generated at existing hydropower facilities do not count towards I-937 renewable portfolio compliance.

There are 11 substations that serve PUD 3 customers. They are Collins Lake, Union River, Belfair, Benson (Mason-Benson Rd.), Pioneer (Highway 3, near Pickering Rd.) Mason (Downtown Shelton), Dayton, Skookum (near the Hwy 108

and Hwy 101 intersection), Mountain View, and Potlatch (near Lake Cushman, owned by BPA). To increase system reliability, there is another substation planned for construction near Taylor Towne.

Substations and distribution networks are constructed or improved to meet electrical demand and ensure reliable and safe operation of the PUD 3 power grid. The utility is demand driven - that is, it expands its level of service to meet demand as needed or projected. Customers needing to be connected to the service generally cover the costs of the connection. This may include infrastructure expansion and improvements, which vary by site and service requirements. Once service is connected, costumers in the same class of service (for instance, residential) pay a rate based on the cost to serve their type of energy demand and consumption.

The PUD has not identified any lands needed for future expansions of facilities as capital or maintenance projects. However, when land developers submit an application for connection, the utility plans and coordinates construction of the required electrical facilities to serve the load of the completed planned development. The developer bears the cost of required infrastructure improvements.

Existing transmission lines are generally located in road rights-of-way. The PUD does not normally purchase or condemn rights-of-ways for their utility lines, and plans to continue to use public rights-of-way for their utility lines in the future. The location of electrical lines on property being developed is determined by the property owner, although the county subdivision regulations provide for utility easements. These usually include the roadways and along lot lines.

The PUD recommends installation of distribution facilities below ground and in conduit. Although this method of installation is more expensive, the benefits include greater reliability, lower maintenance costs, and improved aesthetics.

B. Natural Gas

Cascade Natural Gas

Cascade Natural Gas Corporation provides natural gas throughout Mason County. It has offices in Aberdeen and Bremerton. The Aberdeen office serves the Shelton, Oak Park and Lake Limerick areas. The Bremerton office serves the Belfair area.

In 1993, Cascade Natural Gas served 1,450 commercial and residential customers. Today they serve 2,300 customers throughout Mason County, a nearly 60 percent increase, providing 30 million cubic feet of natural gas monthly. The company does not plan for individual connections, but responds to requests for service which might be for new development or for conversion from other energy sources. System expansions generally use existing rights-of-way or public road rights-of-way. Transmission capacity can be

expanded through existing lines or by adding or enlarging lines. Cascade Natural Gas serves 16 counties in Washington State.

Cascade Natural Gas provides gas service to Mason County from a tap off of Williams Northwest Pipeline in Shelton. A major supply line for the company runs through Mason County by the Shelton Urban Growth Area and the Belfair Urban Growth Area. The company continually expands its natural gas system in response to demand. The method used to determine the economic viability of natural gas system expansion is regulated by the Washington Utilities and Transportation Commission. Routes for expansion of services depends on the demand, available rights-of-way, environmental permitting issues, and opportunities created by new development, or the work in rights-of-way by other utilities or the county or state.

Table 1. Natural Gas Pipelines in Mason County

Northwest Pipeline LLC	10 Miles
Cascade Natural Gas Corp	23 Miles

Natural Gas Regulation

The activities of Puget Sound Energy are regulated by both federal and state legislation. This legislation is primarily concerned with promoting competition among gas suppliers and controlling the cost of natural gas to the consumer. Cascade Natural Gas is subject to the general regulations and oversight by the energy agencies, such as the Washington Utilities and Transportation Commission (WUTC) and the Federal Energy Regulatory Commission. WUTC regulations prohibit extending gas facilities to areas that are not expected to pay for themselves from the outset. While this keeps the existing ratepayers from financing improvements to other areas, it does limit service delivery of natural gas to marginally profitable areas.

Other pieces of legislation that have specific implications for the natural gas industry are described below:

Natural Gas Policy Act 1978

The National Gas Policy Act encouraged competition among fuels and suppliers across the United States. As a result, natural gas has essentially been de-controlled. The Act also contained incentives for developing new natural gas resources and a tiered pricing structure aimed at encouraging the development of national transmission pipelines.

The Clean Air Act Amendment of 1990

The passage of the Clean Air Act amendments in 1990 has shown a federal intent to promote the diversification of fuel sources for motor vehicles. This is in response to the need to both reduce carbon dioxide atmospheric emissions and to reduce the nation's reliance on gasoline for strategic reasons.

The Olympic Region Clean Air Agency serves Clallam, Grays Harbor, Jefferson, Mason, Pacific, and Thurston counties and it is one of seven such regional air pollution control agencies in the state of Washington. Olympic Region Clean Air Agency works cooperatively with the State Department of Ecology and the regional United States Environmental Protection Agency to measure criteria ambient air pollutants, meteorological parameters, and other air-related data. It currently operates and maintains air monitoring equipment for measurement of three of the six criteria pollutants: particulate matter (PM2.5), ozone (O3), and carbon monoxide (CO).

C. Telecommunications

Telephone Services

Several companies provide local telephone service in Mason County. They include Hood Canal Telephone Company, Inland Telephone Company, and Century Link. Century Link serves over 90 percent of Mason County Residents. Existing transmission lines are generally located in road right-of-ways. The location of telephone lines on property being developed is determined by the property owner, although the county subdivision regulations provide for utility easements. These usually include the roadways and along lot lines.

Hood Canal Telephone Company

Hood Canal Telephone Co. Inc, dba as Hood Canal Communications is the Local Exchange Carrier (ILEC) in Union. They are a Competitive Local Exchange Carrier (CLEC) providing the same services into CenturyLink's serving territory using fiber and coaxial cables. The CLEC serves the communities of Skokomish Reservation, Potlatch, Hoodsport, Lilliwaup, Hamma Hamma, Lake Cushman, Skokomish Valley, Shelton, Squaxin Tribe, Kamaliche, Timberlakes, Shorecrest, and Spencer Lake. They have interconnection agreements with CenturyLink for telephone service and utilize multiple providers for middle mile fiber connections. They provide telecommunication services to approximately 5,000 business and residential customers. This is a significant growth in services from 930 customers in 1993.

Inland Telephone Company

The Inland Telephone Company provides local telephone service in the Dewatto area. Its service area includes the east shore of Hood Canal from the Mason/Kitsap County Line south to Red Bluff. Inland Telephone provides single party service to business and residential customers.

CenturyLink

CenturyLink is the largest provider of local exchange service in Mason County, with a service area that includes all areas of the county not served by the Hood Canal and Inland Telephone Companies. The company provides telephone service to the urban growth areas in the county. Century Link generally provides a full range of telecommunication services, however services available in specific areas depend on customer demand and the capabilities of the local central offices.

Cellular Communications

Cellular communications differs from other types of telecommunications in that cellular communications systems use phones and other communication devices that transmit and receive radio signals on bands reserved solely for such activity. Signals are transmitted and received by low power antennae. The area one antenna can transmit and receive to the individual phones is called a cell. The coverage of the cells overlaps so that, ideally, the user can be transferred from one cell to another without interruption of service.

Fiber Optics

PUD No. 3 provides wholesale fiber optic services to five service providers, who in turn provide retail services to approximately 1,000 devices over 467 miles of fiber optic lines within Mason County. PUD No. 3 is also a major hub for high capacity data lines throughout western Washington. Its strategic location provides redundant service capabilities through two major internet routes.

The demand for service and new facilities for telecommunications is difficult to assess because of the changing technologies and the consumer demand for new services. Known service providers with facilities located or currently applied for in Mason County include United States Cellular, CenturyLink, Air Touch Cellular, and NEXTEL, Sprint, AT&T, T-Mobile.

Table 2. Inventory of Telecommunications Infrastructure

Infrastructure	Number
Cell Phone Towers	64
Antenna Towers	10
Maritime Coast & Aviation Ground Towers	3
Amateur Radio Licenses	122

Telecommunication Regulation

The cellular industry is regulated by the Federal Communications Commission (FCC). Local government authority to regulate telecommunication services are also limited and defined by Federal law. In 1998, Mason County adopted an ordinance to regulate telecommunication facilities. This was a response to the Federal Telecommunications Act of 1996, which established the ground rules for increased competition in the telecommunications industry. The Act removed previous limits on the entry of new providers into an area.

D. Sewer and On-Site Sewage Systems

Mason County Utilities and Waste Management is a Division of the Mason County Public Works Department. It is responsible for managing water, waste water and solid waste facilities in the unincorporated areas of Mason County. This includes operations of the Rustlewood and Beards Cove water systems and the Rustlewood, North Bay/Case Inlet, and Belfair water reclamation/sewer collection and treatment facilities.

In 2013, Mason County Board of County Commissioners established the Belfair Sewer Advisory Committee through Resolution No. 14- 13 in order to gather community input and provide recommendations to the Mason County Board of County Commissioners regarding the development and funding of the existing and subsequent phases of the Belfair Sewer System.

Mason County also manages the On-Site Sewage System Program with the goal of protecting public health and the environment by minimizing the threat of surface and ground water contamination from failing or improperly designed, installed or maintained onsite sewage systems. There are currently about 25,000 on-site sewage systems across Mason County. These sewage systems play an important role of groundwater recharge often overlooked in water and stormwater management discussions. Activities of the On-Site Sewage Program include:

- Soil evaluation to determine site suitability for an on-site sewage system
- Review and inspect on-site system designs and installations.
- Provide homeowner education about on-site sewage system maintenance and operation
- Review building permits
- License onsite sewage system Installers, operation & maintenance service providers and pumpers

E. Solid Waste Management Systems

Mason County Solid Waste Facilities

The Mason County Landfill is located near Shelton in Mason County, Washington (Section 4, Township 20 North, Range 4 West). The site address is 501 West Eells Hill Road, Shelton, Washington.

The facility is located in a sparsely populated area used primarily for tree farming. Two private properties, the Culver (formerly Ruggle) residence and the Shelton Auto Yard, are located within 1 mile of the facility. The 8-acre landfill is situated within a 77-acre property and was the primary municipal solid waste disposal facility for Mason County from the early 1970s until the summer of 1993, when closure construction began. Closure activities were completed in 1993 and consisted of capping, implementing surface water controls, and constructing a gas extraction system.

A solid waste transfer station is currently operating at the facility. Solid waste from a majority of Mason County is transported to this transfer station. Then it is trucked to Chehalis and placed on a train to the Roosevelt landfill in Goldendale, WA. Solid waste from Belfair and Tahuya is transported to Olympic View Transfer Station in Port Orchard. Waste Management then transports it by train to their landfill in Arlington, WA.

The County's four solid waste facilities include:

- Shelton transfer station and recycling facilities, 501 W Eells Hill Road
- Belfair drop box station, 1611 NE Sand Hill Road
- Union drop box station, 1391 E McReavy Road
- Hoodsport drop box station, 260 N Foothills Park Road

Shelton-Matlock Landfill

This landfill is located in the unincorporated Matlock area. It operated for an unknown period of time prior to its closure in 2001. While the landfill was open, it was receiving wood waste from nearby forest product operations. The landfill has a groundwater monitoring system in place and has been monitored since 1997. It is currently in post-closure stage and has continued to have groundwater monitoring as part of the post-closure agreement. As of early 2017, there is discussion on the potential for this landfill to end its post-closure care due to evidence that suggests the landfill has reached stability.

Simpson Dayton Landfill

This landfill is located in the unincorporated Dayton area. This landfill was also operated for an unknown period of time prior to its discontinued use in 2006. The material that was accepted at this site was mostly wood waste and an unlimited amount of wood ash. A groundwater monitoring system has been in place and monitored since 1997. In 2016, the closure process was completed and the application for a post-closure permit was submitted and officially accepted in early 2017. The landfill is now moving into post-closure status with limited monitoring.

City of Shelton – C Street Landfill

The C Street landfill is located on a 16.7 acre parcel located southwest of the intersection of West C Street and US Highway 101. The property was acquired by the City in 1928 for use as a municipal landfill. Landfilling operations occurred at the site between 1928 and 1974. After that time, municipal solid waste was sent to the Eells Hill facility to the northwest of Shelton. The City of Shelton has entered into an Agreement with the Washington State Department of Ecology and is working with the agency to conduct a Remedial Investigation and Cleanup Action Plan as well as to finalize closure of the facility.

Total solid waste tonnage generated in Mason County is reported in Table 3.

Regulating Solid Waste

The Federal Resource Conservation and Recovery Act is our nation's primary law governing the disposal of solid and hazardous waste. Congress passed this Act on October 21, 1976, to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. The Resource Conservation and Recovery Act, which amended the Solid Waste Disposal Act of 1965, set national goals for:

- Protecting human health and the environment from the potential hazards of waste disposal
- Conserving energy and natural resources
- Reducing the amount of waste generated
- Ensuring that wastes are managed in an environmentally-sound manner.

Table 3. Solid Waste Tonnage Produced by Mason County Residents 2010-2016

Total Tonnage	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Exported for land disposal	33,474	31,484	31,447	32,340	33,558	33,779	33,880
Collected through recycling	1,302	1,229	1,318	1,313	1,375	1,464	1,590
Total Tons generated	34,776	32,713	32,766	33,653	34,933	35,243	35,345
Per Capita Annual Tonnage	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
OFM Population for Mason County	60,699	61,100	61,450	61,800	62,000	62,200	62,320
Exported for land disposal	0.551	0.515	0.512	0.523	0.541	0.543	0.544
Collected through recycling	0.05	0.049	0.051	0.05	0.053	0.054	0.026
Total tons generated per capita	0.601	0.564	0.563	0.573	0.595	0.597	0.567

Source: Mason County Public Works Division

Washington State Regulations

Similar to federal regulations, laws for waste disposal are established in the Revised Code of Washington (RCW) and implemented through the Washington Administrative Code (WAC). The laws related to solid waste are found in several sections which include:

- Title 36 Counties - establishes all County authorities and responsibilities
- Title 70 Public Health and Safety – establishes programs and responsibilities for public health and safety
- Title 80 Public Utilities – establishes the Public Utilities and Transportation Commission with its authorities and responsibilities
- Title 81 Transportation – establishes laws relative transportation activities such as motor transport, ferries, pipelines, railroads and air transport.

State law, RCW 70.95, is of particular importance to Mason County's Comprehensive Plan. It requires that county and city governments assume the primary responsibility for solid waste management and implement effective waste reduction and recycling strategies. In addition, RCW 70.95 requires that local solid waste management plans demonstrate how the following goals will be met:

- Washington State's goal is to achieve a statewide recycling and composting rate of 50 percent.
- There is a statewide goal to eliminate yard debris from landfills by 2012 in those areas where alternatives exist.
- Source separation of waste (at a minimum, separation into recyclable and non-recyclable fractions) must be a fundamental strategy of solid waste management.
- Steps should be taken to make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal.

Also, under Washington State Growth Management Act 36.70A, all Counties and Cities are required to establish a process for siting essential public facilities, including those facilities typically difficult to site like solid waste handling facilities and other regional utility facilities, as well as facilities like regional transportation facilities, state education or correctional facilities, substance abuse and mental health facilities, and secure community transition facilities.

F. Water and Stormwater

PUD No. 1

PUD No. 1 owns and manages 40 water systems throughout Mason County serving approximately 1,860 connections and providing 93 million gallons of water annually to customers across the service area (about 50,000 average annual gallons per connection).

Washington State Department of Health – Public Water Systems

In Mason County, there are 300 Group A wells including those managed by PUD 1, 230 are active with over 24,000 connections providing water to over 44,000 people. These wells provide an estimated 2.1 billion gallons of water annually across the County.

Of the 750 existing Group B wells in Mason County (including those managed by PUD 1), 520 are active and provide water to over 6,000 people through 3,000 connections. These wells provide an estimated 935 million gallons of water annually.

Exempt Wells

Currently, there are an estimated 1,490 exempt wells serving 11,000 connections in Mason County, based on data collected by the County from 1992 to the present. These wells provide an estimated 790 million gallons of water annually.

Regulating Water

There are three types of public water systems: Group A, Group B and Two-Party. A Group A system is the largest type of system. Any system with more than 14 connections or that serves 25 or more individuals for 60 or more days per year is considered a Group A public water system. All Group A systems are regulated by the State Department of Health Office of Drinking Water.

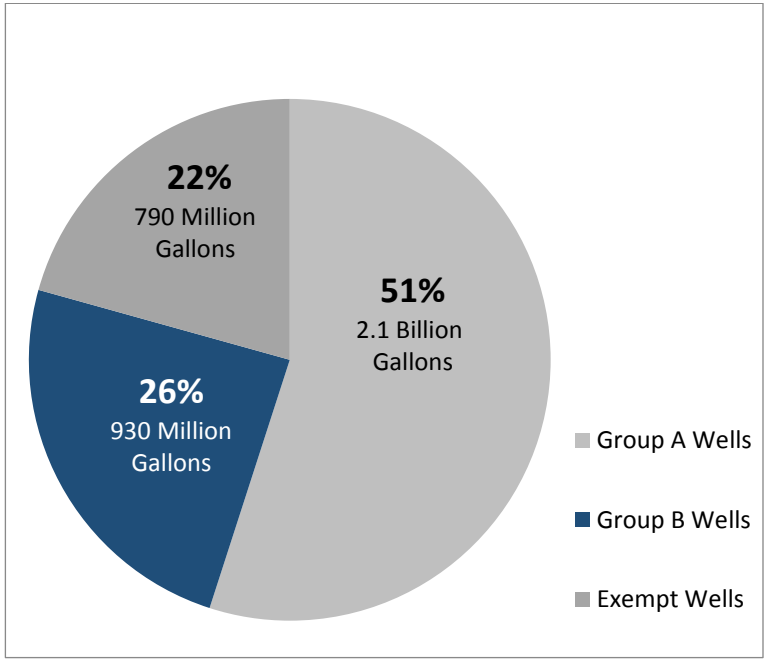


Figure 2. 2016 Mason County Water Consumption by Well Type

Mason County Public Health regulates all Group B Water Systems in Mason County. A Group B water system serves from 1 to 14 connections and less than 25 individuals per day. The regulations governing public water systems are Washington Administrative Code (WAC) 246-290 for Group A systems and WAC 246-291 for Group B systems.

Managing Stormwater

Mason County is in compliance with state and federal requirements and continues to develop and improve its Stormwater Management Program. The County is also working to raise awareness of the importance of stormwater management among development partners and others.

In 2008, Mason County adopted a Countywide Stormwater Management Plan to both protect and enhance water quality. Of special concern are the impacts of continued and increased stormwater discharges to the local water quality of Hood Canal, Oakland and Annas Bays, and the rich shellfish habitat in nearby natural and commercial rearing areas. Pollution from pathogens in sewage and animal wastes are a chronic problem in many areas of Puget Sound and is closely associated with rainfall events and stormwater runoff as well as being influenced by population densities and development levels. Because of fecal contamination, shellfish beds in both Oakland and Annas Bays have been downgraded and shellfish protection districts have been created to improve water quality and preserve natural resources.

As part of the Stormwater Management Plan development process, Mason County Board of County Commissioners created a Stormwater Task Force of eight community members to assist in review and development of the Plan. The composition of the Task Force reflected major stakeholder groups such as business owners, the timber and shellfish industries, the Tribes, environmental groups, the Washington Association of Sewer and Water Districts, the City of Shelton and the general public. Over the course of a series of meetings and briefings, the Task Force facilitated public input and provided feedback that helped to ensure the public's interests were represented and that contributed to shaping the final plan.

The Allyn, Belfair and Hoodsport Stormwater Management Plans complement and support the development of the Comprehensive Countywide Stormwater Management Plan and are incorporated as part of the Comprehensive Plan by reference.

Mason County's 2008 Stormwater Management Ordinance was codified in Mason County Code Chapter 14.46. The adoption and application of this Ordinance based on the 2005 Ecology Manual will further reduce erosion and sedimentation provided effective enforcement authority is established and exercised.

Mason County's Stormwater Management Plan takes a decentralized approach that is based on low impact development (LID) techniques, innovative stormwater management designs with the basic principle that they are modeled after nature. The goal of the Plan is to minimize the impacts of future land use changes, as well as promote the design and construction of onsite LID systems.

Significant steps have been taken in implementation of the County Stormwater Management Plan, including:

- Establishing a Countywide Stormwater Utility.
- Implementing a facility retrofit program to detain and treat the runoff from existing development using LID techniques.
- Treating county road runoff by retrofitting existing facilities, as well as by adding water quality treatment to all new County road designs.
- Pursuing further expansion of these programs, particularly maintenance.

Regulating Stormwater

Under the Federal Clean Water Act regulations, local governments in Washington subject to the federal National Pollutant Discharge Elimination System (NPDES) Storm Water Program, including Mason County, are required to have stormwater management programs.

The U.S. Envornmental Protection Agency controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The Washington State Department of Ecology (DOE) administers the federal NPDES program in the state.

Also, the listing of salmon under the Endangered Species Act (ESA) requires that streams and wetlands be protected. All local governments with salmon habitats are encouraged to develop storm water management plans.

IV. MEETING FUTURE UTILITIES DEMANDS

A projected inflow of 19,400 new residents are expected between 2016 and 2036 in Mason County and services areas of PUD 1 and PUD 3. This will increase the electric service territory population to almost 82,000 by 2036. The growth in housing as shown in Table 4 is similar to trends in population growth, with a projected 7,500 housing units being added in Mason County by 2036 with 3,900 of these new housing units in the Urban Growth Areas.

There were 13,800 jobs in Mason County in 2016. Additionally, employment is expected to grow at an average annual rate of 0.7 percent between 2016 and 2035, manufacturing employment is expected to decline annually by 0.4 percent on average between 2016 and 2035, and local employers are expected to create about 2,100 jobs between 2016 and 2035. The gain in employment is primarily in the areas of government, professional services, and retail.

The biggest changes in employment occur in information, construction, and utilities.

These projections form the basis of the utility forecast for Mason County helping ensure adequate services are in place and identify potential changes or adjustments needed.

Table 4. Projected Housing Needs 2016-2036

	2016 Housing Units	2036 Housing Units	Number of New Housing Units	% Increase 2016-2036
Urban Growth Areas	3,000	4,500	1,500	50%
Rural County	26,500	34,500	8,000	30%
Shelton	3,900	5,000	1,150	30%
Mason County Total	33,400	44,000	10,650	32%

Source: US Census Housing Survey and Office of Financial Management

A. Projecting Energy Demand

One simple measure of the energy intensity is the gross measure of total energy consumed divided by the population. This per capita indicator is a good measure of energy consumption because decisions by individual consumers have an important effect on overall energy consumption. Combined with energy efficiency projections outlined in this document, this measure provides a straight-line projection that provides a picture of anticipated demand based on historic trends. This projection does not take into account innovation and efficiencies expected from the building industry or other innovations that could be as high as 20 percent over the 20 year planning horizon based on Washington State Department of Energy studies.

Table 5. Mason County Residential, Commercial, Industrial Electricity Demand 2016-2036

	1993	2016	2036 Projection
Mason County Population	**38,350**	**62,320**	**83,850**
PUD 3 Electricity (kWh)	493,000,000	610,000,000	770,000,000
PUD 1 Electricity (kWh)	58,700,000	73,100,000	91,000,000
Per Capita kWh	14,390	10,960	10,000

Source: U.S. Energy Information Administration (EIA) State Energy Data System, PUD No. 1, PUD No.3, and the 2010 Census

Average household size was estimated to be 2.57, US Census Bureau, American Community Survey

System-level Impacts of Energy Efficiency

The Energy Independence Act requires electric utilities with 25,000 or more retail customers in Washington to use renewable resources and conservation to help meet their customers' energy needs. The utilities report annually to the State Department of Commerce on their compliance.

Utilities in Washington State use wind power to meet about 80 percent of their mandated renewable requirements. Energy efficiency improvements, solar, and other various qualified sources account for about 15 percent. In 2016, the renewable energy target increased from 3-9 percent of customers' electricity load, and in 2020, the target will increase to 15 percent.

In 2005, in response to Washington Administrative Code 458-20-273, PUD No. 3 serving Mason County participated in the Washington State renewable energy production incentive payment program. Under this program, the PUD facilitates payments from the state program to interconnected electric customers who own and operate eligible renewable energy systems. The renewable sources may include solar PV, wind, anaerobic digesters, or microhydro.

Average annual credits range from $0.12 to $1.08 per kWh of energy produced by their system. The PUD receives a state tax credit equal to the payments made to customers.

In 2016, PUD No. 3 was meeting its renewable energy target at 9 percent of customers' electric load and exceeding its energy conservation target. Washington State Department of Energy anticipates that electric demand side efficiency efforts have the potential to continue to reduce statewide consumption by an estimated 20 percent by 2035.

B. Projecting Water Demand

Table 6. shows an estimate of current and water consumption. Estimating demand for water is more complex than other utilities as we know much less about the amount of water in ground water stores and have a limited ability to estimate potential impacts of water conservation, recycling, reuse and recharge. A collaborative study is necessary to help the County and partner agencies learn more about future supply and demand.

Table 6. Mason County Water Demand 2016

	2016	
Source	**2016 Gallons per Year (millions)**	**2016 Connections**
Group A Systems	2100	24,000
Group B Systems	930	3,000
Exempt Wells	790	11,000
TOTALS	**3,820**	**38,000**

Source: PUD No.1, Washington State Department of Health, and Mason County

System-level Impacts of Recharge

Water conservation, wastewater recycling, and reuse is becoming more important due to increases in:

- Demand on potable water resources,
- The cost of treating wastewater,
- Regulations requiring greater flows for streams and rivers, which reduces irrigation sources, and
- The demand for sustainable building options.

By design, on-site sewage systems, also known as septic systems, naturally recycle wastewater by recharging ground water. To ensure on-site sewage systems are treating waste effectively and not polluting the ground water, there must be a strong commitment to regular and ongoing monitoring to ensure these systems are working properly.

Under existing Washington State Law, several types of water conservation, recycling and reuse are currently permitted and regulated as shown in Table 7. However, additional State policy innovation and flexibility for Washington Counties promoting water conservation, recycling and reuse will be critical over the 20 year planning horizon in order to support projected growth and development in the way Mason County envisions, a way that maintains rural character, quality of life, and unique natural environment.

Table 7. Existing Options for Water Conservation, Recycling or Reuse in Washington State

State Law	Methods	Description	Benefits
WAC 246-272A	On Site Septic - Using Subsurface (Underground) Drip Irrigation	Treats residential wastewater for subsurface irrigation of plants.	All wastewater from building can be used and irrigation can be controlled precisely for maximum benefit
WAC 246-272A	Greywater On Site Septic	On-site sewage system used in a building equipped with waterless toilets	Reduction in total volume of water used and wastewater irrigates vegetation
WAC 246-272A	Greywater for Subsurface Irrigation	Treats residential wastewater for subsurface irrigation of plants.	Reduction in total volume of water used and wastewater irrigates vegetation
WAC 51-56-1600	Greywater and Rainwater Recycling	Recycling of any water, including greywater, inside of a building and using it for flushing toilets and other non-potable water uses	Reduces water use by recycling greywater or rainwater for surface irrigation, industrial processes, toilet flushing, and other non-potable water needs.
WAC 246-272B	Large On-site Sewage Systems	Provides subsurface soil treatment and disposal of sewage for a design flow of 3,500 to 100,000 gallons per day for 10-350 homes.	Can accommodate developments, schools, churches, campgrounds, business parks, parks, resorts, etc.
RCW 90.46	Reclaimed Water	Wastewater (sewage) that is treated to remove solids and impurities and recycled	Reduces water use by recycling wastewater for surface irrigation, industrial processes, toilet flushing, and other non-potable water needs.

*Greywater - Flows from bathtubs, showers, bathroom sinks, washing machines, dishwashers, and kitchen or utility sinks.

The amount of runoff entering streams and the amount of precipitation entering groundwater systems in Mason County can and has been estimated by Washington State Department of Ecology using annual rainfall of 65 inches, based on Western Regional Climate Center data. Assuming one-third of the 65 inches of rainfall infiltrates to groundwater, that is 22 inches or 1.8 feet of water into each acre of land per year.

C. Projecting Solid Waste Needs

Table 8. provides an estimate of future total solid waste tonnage using the OFM Growth Management projections assuming Mason County continues to generate 0.6 tons of solid waste per person. In terms of population and waste stream tonnage, Mason County has been following the mid-range growth rate. Solid Waste projections for the 20 year planning horizon show that the County's waste stream will exceed 50,000 tons of solid waste per year by 2036.

Table 8. Low, Intermediate, and High Projections for Total Waste Stream, 2020 through 2040

Year	2020	2025	2030	2035	2040
High Range Population	76,240	82,620	89,090	95,470	101,580
High-Range Tonnage	45,740	49,570	53,460	57,280	60,950
Mid-Range Population	67,550	71,930	76,400	**80,780**	**84,920**
Mid-Range Tonnage	40,530	43,160	45,840	**48,470**	**50,950**
Low Range Population	58,740	61,080	63,490	65,820	67,930
Low Range Tonnage	35,250	36,650	38,090	39,490	40,760

Source: Mason County Public Works Division

D. Moving Toward Zero Waste

Despite new technologies and processes that have improved the ability of residents, businesses and municipalities to handle, sort, and recycle materials, recycling volumes, including yard and food waste, only remove approximately one percent of the waste stream.

As more landfills in the region close and the County seeks innovative solutions to the problem of higher waste disposal costs, state government has fewer resources to help. Solid waste continues to be a contributor to greenhouse gas (GHG) emissions, which Washington is bound by law to reduce 25 percent by 2020 below 1990 levels and 80 percent by 2050.

Waste reduction is the highest priority for solid waste management and is preferred over recycling and composting because the social, environmental and economic costs are typically lower for waste reduction. All three methods avoid the cost of disposing the diverted materials as garbage, but recycling and composting frequently require significant additional expenses for collecting and processing the materials.

Consistent with Mason County's Comprehensive Solid Waste Management Plan and through a blend of innovative policies, ranging from technical assistance to legislation and initiatives prioritizing waste reduction, Mason County is addressing these challenges and placing the County on the pathway to higher reuse and recycling volumes that will help make zero waste a reality.

V. POTENTIAL IMPACTS OF CLIMATE CHANGE

There are at least two ways in which climate change can affect energy demand and availably. First, long-term changes in temperature will alter electricity demand and change precipitation patterns, river flows and hydroelectric generation. Second, policies enacted to reduce greenhouse gases will affect future resource choices.

Northwest Power and Conservation Council (NPCC) analysis and planning shows that climate induced changes to loads and river flows will not affect resource choices during the period 2016 through 2021. However, beyond 2026, resource decisions may be impacted.

NPCC predicts the Pacific Northwest will have less snow and more rain during winter months, resulting in a smaller spring snowpack and lower summer flows. Winter electricity demands would decrease with warmer temperatures, easing generating requirements. In the summer, demands driven by air conditioning and irrigation loads would rise.

Power supplies projected through 2026 are anticipated to meet demand, even under a climate change scenario. After considering the climate induced shift in river flows and load to the assumptions in NPCC's modeling scenarios, the likelihood of a shortfall in 2035 grows to 15 percent.

Other potential climate change impacts include increased flooding concerns in fall and winter, reduced salmon migration survival due to lower summer river flows and higher water temperatures, and increased summer electricity prices.

Increased diversion of water from electricity generation to salmon migration and survival may mean foregone power supplies and rate revenues.

Washington utility agencies recommend that research continue in this area and suggest that while no immediate actions regarding reservoir operations are indicated, the region should consider alternative reservoir operations that could potentially mitigate for future climate change impacts.

CHAPTER 12 – IMPLEMENTATION

Table of Contents

I. Introduction

The Mason County Comprehensive Plan provides a framework for a wide variety of public decisions affecting growth, development, community character, and public expenditures. Without an implementation process, the County may not achieve its adopted goals and objectives or fail to realize opportunities for improvement in time to take advantage of them.

Implementation of the Mason County Comprehensive Plan is carried out through a process that assures the land use plan and implementing zoning provide reasonable use of private properties.

This implementation process ensures protection of citizen property rights while achieving countywide goals and policies. A permit process system implements the Comprehensive Plan to ensure that there is consideration of applications in a timely manner. Comment and appeal procedures are included as appropriate to provide avenues for public and property owner input.

The County's role in regional growth management includes:

- Coordination with other jurisdictions.
- Regional economic development in partnership with the Economic Development Council.
- Community Planning and Design for Mason County.
- Regional transportation planning through the Peninsula Regional Transportation Planning Organization.
- Comprehensive Plan implementation

KEY ISSUES

How can Mason County make sure its Comprehensive Plan achieves measurable results?

- Update Ordinances as required by State law
- Update Ordinances consistent with the Countywide Planning Policies
- Use the County's full range of planning tools and authorities to implement the Plan
- Report annually on key performance measures and revise as needed
- Coordinate with all jurisdictions within Mason County to ensure consistency and reduce redundancy

II. Plan Implementation Tools and Authorities

Capital Facilities Planning (CFP)

Capital projects are major projects that benefit the County, including the construction of new roads and sidewalks, the purchase of new firefighting equipment, the repair of sewer and water mains, as well as many more public improvements. The CFP (see Chapter 6 of the Comprehensive Plan) outlines County expenditures for the upcoming six and twenty year planning periods. It also outlines ways to finance the proposed expenditures, including the sale of Bonds or user fees from Enterprise Funds. The Mason County Board of County Commissioners updates and approves the CFP annually.

To achieve the goals and objectives described in the Comprehensive Plan, the Mason County has established regulations for zoning, subdivision of land, master planned development, and shoreline management. All are administered through the County Planning Office.

Zoning

County zoning codes regulate land use to promote the health, safety, order, convenience, and general welfare of all citizens. Zoning codes regulate location, size, use and height of buildings, the arrangement of buildings on lots, and the density of population within the Urban Growth Areas and the rural county. The County zoning districts effectively guide development throughout the County.

Subdivision of Land

County controls to regulate subdivision of land include an application process, public notice and informal public hearing, Planning Commission review, legal notice and public hearing by the Board of County Commissioners. After applicants submit completed subdivision paperwork to the Planning Office, staff schedule an informal public hearing by the Planning Commission within 30 days of application acceptance. Before the Planning Commission hearing date, the County mails notice of the hearing to owners of all property within 500 feet of the subject property. The Planning Commission considers various conditions of the application and makes a recommendation to the Board of County Commissioners to approve or deny the proposed subdivision or consolidation.

Master Planned Developments

A Master Planned Development provides an optional method of regulating land use that permits flexibility from the other provisions of County Code, including flexibility in uses allowed, setbacks, height, parking requirements, number of buildings on a lot, and similar regulations.

Applicants must submit a preliminary plan of the proposed development that illustrates its nature and type. The Master Plan must also identify all land uses and proposed square footage:

- the location of buildings
- existing and proposed roadways
- and accesses
- pedestrian ways and sidewalks
- proposed parking areas
- preliminary traffic volume projections
- areas to be preserved
- public and common areas
- preliminary building elevations, including height and materials
- preliminary utilities plan
- the location of the parcel's boundaries
- the net and gross density of the development
- the total area occupied by the development
- lot coverage
- development schedule

The Planning Commission will then hold an informal public hearing and consider the application for consistency with various County guidelines and other requirements. The Planning Commission's report to the Board of County Commissioners will include recommended changes, conditions, or modifications. The County Commission will then hold a public hearing, take action on the application, and make findings on the proposal. This may include a request for plan amendments, approval, denial, or other action deemed appropriate by the Council, such as referral back to the Planning Commission.

Following Commission approval of a Final Master Plan, the County issues an agreement that references all applicable plans and specifies permitted uses, allowable densities, development phasing, required improvements, completion dates for improvements, and additional requirements for each Master Planned Development, in accordance with the conditions established in the County Commission approval of the Final Master Plan and ordinance.

Shoreline Management

The Washington State Legislature has delegated to municipalities the responsibility to regulate the subdivision, use, and development of shorelines of public waters. The goal is to preserve and enhance the quality of surface waters, preserve the economic and natural environmental values of shoreline, and provide for the wise use of waters and related land resources. Mason County accomplishes these goals through the Mason County Code Chapters 8.52, Resource Ordinance and Title 17, Zoning.

Other Land Use Tools

Opportunities exist for Mason County to raise awareness and expand use of other land use tools provided under state law and also incorporated into the Mason County Development Regulations including:

- **Planned Action Environmental Impact Statements** – The County conducts the required environmental analysis before development is proposed to streamline and incentivize development in desired locations. (RCW 43.21C.031)

- **State Environmental Policy Act Mitigation Fees** – Fees collected to mitigate impacts under SEPA can be used to offset infrastructure costs and develop shovel ready sites. (RCW 43.21C)

- **Transfer Development Rights** - voluntary, incentive- based program that allows landowners to sell development rights from their agricultural lands to a developer or other interested party who then can use these rights to increase the density of development at another designated location. (MCC 17.03.037)

- **Clustering** - Clustering development allows grouping of residential structures on a portion of the available land while reserving a significant amount of the site as undeveloped open space. (MCC 16.23)

- **Restoration Planning** - Provides the option to develop a plan, tailored to a specific property, as an alternative to strict adherence to development regulations. Modification of buffers, a streamlined permit process and/or other departures from standards may be permitted on properties that provide a plan of alternative actions that will protect environmental resources and avoid environmental harm. (MCC 8.52.275)

- **Design Guidelines** – Specify that the design, shape, size, and orientation of lots shall be appropriate to the use for which the lots are intended and the character of the area and consistent with the policies of the county comprehensive plan and other land control ordinances. Lot areas in excess of minimum standards may be required for reasons of sanitation, steep slopes, slide hazards, poor drainage, flood hazards, or other unique conditions or features which may warrant protection of the public interest. (MCC 16.38)

- **Voluntary Stewardship Program -** This program is intended to promote local plans that protect and enhance critical areas within areas where agricultural activities are conducted, while maintaining and improving the long-term viability of agriculture in the state of Washington and reducing the conversion of farmland to other uses. These plans establish voluntary incentive programs that encourage good riparian and ecosystem stewardship, protect water quality and fish habitat, and discourage the cessation of agricultural activities.

- **Conservation Easements** – Establish rights in perpetuity to future development which may be acquired by the county on any open space land, farm and agricultural land, and timberland. (Chapter 84.34 RCW)

III. Establishing Annual Progress Reporting

To fulfill Mason County's role in regional growth management and ensure success of the Comprehensive Plan, Mason County will report annually as part of the required periodic review of Mason County's Comprehensive Plan.

The Annual Progress Report will include the collection and evaluation of land use development trends. Certain data, such as population, age, family size, cost and number of housing units, school enrollments, building permits, and others, contribute to an understanding of how these factors relate to public policies and programs. Regular collection, evaluation, and reporting of data assists County policy- and decision-makers, and the public, in identifying whether the Plan's policies are furthering their intended goals, and whether programs and public services are meeting the public's needs. This regular reporting can also streamline and simplify the Comprehensive Plan Update process.

Comprehensive Plan Amendments

The Comprehensive Plan may be amended once annually (with some exceptions under RCW 36.70A) to ensure consistency with population projections, development regulations, and other functional plans.

Amendments to the Comprehensive Plan must be supported by findings from monitoring economic indicators, changes in law, omissions or errors, population changes or declared emergency. Comprehensive Plan amendments may be initiated by the County or by other entities, organizations, or individuals according to the process and procedures specified in Mason County Code 15.09.060.

The docketing cycle for these amendments submitted by both the public and the County is initiated annually by an official notice that specifies the requirements and the process. According to procedures and timelines in Mason County Code, the County Planning Office will evaluate each complete amendment proposal to determine whether it would:

- adversely affect the County's budget;
- meet the State Environmental Policy Act requirements;
- require additional amendments to policies or regulations;
- be more appropriately addressed as part of a different code revision or action;
- be consistent with the Comprehensive Plan goals and other state and local requirements.

After receiving staff recommendations, the Board of County Commissioners conducts a public meeting to consider including each amendment in the annual docket of proposed amendments.

A decision by the Board to include or exclude an amendment from the annual docket is final, procedural only, and does not constitute a decision by the Board as to whether the amendment will ultimately be approved. Applicants whose proposals were not included in the docket are free to resubmit the same or modified proposal in a future year's amendment cycle.

An emergency amendment can be considered any time and may only be adopted if the Board of County Commissioners finds that the amendment is necessary to address an immediate situation of federal, state, countywide, or local concern.

Periodic Urban Growth Area Review

Urban Growth Areas (UGAs) in Mason County includes the incorporated City of Shelton and unincorporated communities of Allyn and Belfair, combined with whatever surrounding unincorporated area is necessary to accommodate urban growth projected to occur over 20 years. The County is required to periodically assess the Urban Growth Area boundaries and densities, and revise their comprehensive plans and development regulations as necessary to accommodate the urban growth projected to occur in Mason County for the 20-year planning period.

The update of the Comprehensive Plan, land use maps and development regulations is made official through legislative action of the Board of County Commissioners. However, the planning process is actually ongoing.

The boundaries separating the Urban Growth Area, Rural and Natural Resource Lands designations are intended to be long-term and unchanging. Amendments or changes to Rural Natural Resource lands and critical area designations should be based on changes in law or local circumstances, errors in designation, or revised when new information on natural resource lands or critical areas becomes available.

Comprehensive Plan policies guide the establishment of more functional plans, regulations, and programs. For example, functional plans would include the Comprehensive Solid Waste Plan, Hazard Mitigation Plan, Utility Plans, etc. These plans must use the policies and population projections adopted through the County Comprehensive Plan to develop their preferred alternatives. Amendments that occur between the periodic updates of the Comprehensive Plan keep the Comprehensive Plan and development regulations continuously up to date. At the end of the periodic update cycle, these various amendments and other required updates are reviewed and incorporated into the official action by the Board of County Commissioners to affirm that the Plan and regulations are updated.

IV. Coordination with other Plans

During the development of Mason County's Comprehensive Plan, some residents expressed an interest in developing sub-area plans and discussed the need for more functional plans. This section outlines the administrative processes for initiation and development of subarea and functional plans and the relationship between these plans and the Comprehensive Plan.

The Comprehensive Plan is based on public input and seeks to assure affordable growth and development. It is required by state law (RCW 36.70A) and serves as an umbrella for coordinated and unified planning within Mason County. Subarea and functional plans result from partnerships uniting the County, other jurisdictions and organizations inside and outside the County, and citizens of a specific area like an Urban Growth Area or community.

Subarea and functional plans take a more detailed approach to planning for public infrastructure and services in an area or for a specific public service or facility type while still maintaining consistency with the Comprehensive Plan and its foundational assumptions and policies as required. These plans focus on enhancing specific subareas of the County in a manner that benefits the entire county.

They should clearly demonstrate consistency with the Countywide Planning Policies and Capital Facilities Plans, as well as identifying ways they support and utilize the implementation tools and authorities of the County outlined in this Chapter.

Appendix 4A

WUE PERFORMANCE REPORT

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Date Submitted: 6/8/2020

Water Use Efficiency
Annual Performance Report - 2019

WS Name: SHELTON CITY OF

Water System ID# : 78170 WS County: MASON

Report submitted by: *Ken Dickinson*

Meter Installation Information:

Estimate the percentage of metered connections: *100%*

If not 100% metered – Did you submit a meter installation plan to DOH? No

Within your meter installation plan, what date did you commit to completing meter installation?

Current status of meter installation:

Production, Authorized Consumption, and Distribution System Leakage Information:

12-Month WUE Reporting Period *01/01/2019* To *12/31/2019*

Incomplete or missing data for the year? *No*

If yes, explain:

Total Water Produced & Purchased (TP) – Annual volume gallons	*365,529,096*	gallons	
Authorized Consumption (AC) – Annual Volume in gallons	*342,398,795*	gallons	
Distribution System Leakage – Annual Volume TP – AC	*23,130,301*	gallons	
Distribution System Leakage – DSL = [(TP – AC) / TP] x 100 %	*6.3 %*		
3-year annual average - %	*11.2 %*		*2017, 2018, 2019*

Goal-Setting Information:

Enter the date of most recent public forum to establish WUE goal: *03/17/2014*

Has goal been changed since last performance report? *No*

Note: Customer goal must be re-established every 6 years through a public process.

Customer WUE Goal (Demand Side):

1. Reduce total water consumption by 1% annually from 2014 to 2020. 2. Maintain a Distribution System Leakage amount equal to or lesser than 8% for the period 2014 to 2020. 3. Reduce residential water consumption by 3% from 2014 to 2020.

Customer (Demand Side) Goal Progress:

Additional Information Regarding Supply and Demand Side WUE Efforts

Describe Progress in Reaching Goals:

- Estimate how much water you saved.
- Report progress toward meeting goals within your established timeframe.
- Identify any WUE measures you are currently implementing.
- If you established a goal to maintain a historic level (such as maintaining daily consumption at 65 gallons per person per day for the next two years) you must explain why you are unable to reduce water use below that level.

The following questions will help DOH better understand water usage, water resources management and drought response. The data will be used to provide technical assistance, not for regulatory purposes.

All questions are voluntary

Month	Date of Measurement	Static Water Level (feet below measuring point)	Dynamic Water Level (feet below measuring point)
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

Water level data:

Please provide the following information (if known) to help us better utilize the water level data.

Well tag Id number:

Well depth:

Water level accuracy (within 0.01 ft < 1 ft ~ 1 ft)

Completion type (e.g., cased open interval, cased open-ended, cased open-ended with perforations, etc…)

Location coordinates (latitude, longitude) and accuracy of the coordinates (< 1ft, ~1ft, >1000ft)

Water level parameter name (e.g. depth below measuring point, depth below top of casing, depth below ground surface)

Elevation of top of casing OR elevation of measuring point if different than top of casing (as specified in question 7)

Monthly/Seasonal Water Usage:

What was your maximum daily water demand for the previous year (in gallons per day)? _____

Month	Volume of Water Produced in gallons
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

Water shortage response:

Did you activate any level of water shortage response plan the previous year?

☐ Yes ☐ No ☐ There was no need to

If you activated a water shortage response plan the previous year, what level did you activate? (Check all that apply)

☐ Advisory Conservation ☐ Voluntary Conservation

☐ Mandatory Conservation ☐ Rationing ☐ Other

What factors caused your water shortage the previous year?

☐ Drought ☐ Fire ☐ Landslides ☐ Earthquakes

☐ Flooding ☐ Water Supply Limitations ☐ Other

Do not mail, fax, or email this report to DOH

Appendix 4B

WUE PUBLIC EDUCATION

WATER

People in Northwestern Washington are often seen as leaders on conservation issues. We live in a spectacular part of the county and we do what we can to ensure it stays that way. Although the Northwest is known for its abundant rainfall, managing our water resources and infrastructure is critical to the safety and health of our community.

Water Conservation

- When washing dishes by hand, don't let the water run while rinsing. Fill one sink with wash water and the other with rinse water.
- Some refrigerators, air conditioners and ice-makers are cooled with wasted flows of water. Consider upgrading with air-cooled appliances for significant water savings.
- Adjust sprinklers so only your lawn is watered and not the house, sidewalk or street.

Water Conservation Facts:- By the Numbers

- **2.5 gallons:** The amount of water per person much of the world is allocated.
- **400 gallons:** The amount of water per person used by the average American citizen; 30 percent of this is used for outdoor purposes, such as watering the lawn.
- **70 percent:** The amount of worldwide water use that is allocated to farming. Most of these farming irrigation systems operate at only 40 percent efficiency. According to a 2002 article by Lester Brown, aquifers are depleting all over the world. In China, they're going down by 2-3 meters per year. In the US, the Ogallala aquifer is shrinking rapidly. In India, aquifers are going down by 3 meters per year, and in Mexico by 3.3 meters per year.
- Small drips or leaks around your home can be big water wasters. A pinhole sized leak can waste as much as 70 gallons a day. That adds up to more than 25,000 gallons a year.

100+ Ways to Conserve Water

Appendix 5A

HYDRAULIC MODEL CALIBRATION

2017 WATER SYSTEM PLAN UPDATE

City of Shelton

Date:	5/16/2017		
Subject:	Hydrant Flushing Procedure	**Project No.:**	10669A.00
	Handout for Model Calibration		

1. Objective

This handout presents procedures and recommendations for conducting hydrant flow testing.

2. General Hydrant Flushing Protocol

This section presents the general protocol for performing hydrant flushing. It is intended to provide a general reference for the operations staff performing flushing operations. In addition to the protocol, safety considerations, and sensitive area considerations are also presented. Specific procedures for performing hydrant flow tests for hydraulic model calibration are described below.

a. Flushing Protocol

The following protocol should be used for each hydrant flush. Safety is a key issue when implementing a hydrant-flushing program. While performing a flush, it is important to avoid damage to private property, to allow adequate drainage, and to use traffic control where necessary. In addition, it is important to be aware of sensitive areas such as creeks and other areas that might suffer erosion from the high flow rates. In addition to safety concerns, chlorinated water may be toxic to fish, and water with high sediment content can adversely affect aquatic life. Therefore, it is important to dechlorinate the water, and to ensure that excessive sediment is not discharged into a sensitive creek.

Hydrant flushing should follow this procedure:

1. Assess the hydrant to be flushed and the area surrounding the hydrant to determine the safety and sensitivity of the site.
2. Locate the hose outlet on the flush hydrant. Remove the outlet cap and install any necessary adaptors.
3. Flush the hydrant at a low flow rate (about 10 gpm) by slightly opening the hose outlet. Flush the hydrant until the water runs fairly clear. Accumulated sediment in the hydrant line may damage the pressure testing equipment; the water should run clear before any testing is attempted.
   Note: *Verify the direction of the water flow away from the test area. Ensure that water is not causing any damage to neighboring property. Water should also discharge properly into a drain inlet. Check the path of the water and visually inspect the drain inlet for plugging or other obstructions. If water drainage is problematic, do not conduct any further testing. Shut off the hydrant, remove all equipment, and choose another hydrant.*
4. Turn the hydrant off and install a pressure gauge on the hose outlet.

5. Slowly open the operating nut one to two turns. Bleed the air out of the gauge, read, and record the static pressure.
6. Once a static pressure reading is taken, close the operating nut slowly to avoid water hammer.
7. Determine which remaining outlet (usually the steamer or pumper outlet) will be used for flushing.
8. Remove the steamer outlet cap and install a combination flow tester/discharge diffuser on the hydrant. Also, set up the dechlorination system of choice.

   Note: *The need to dechlorinate discharges to the environment is more critical with chloramines than with chlorine. This is due in part to the higher disinfectant residual concentration throughout the distribution system and, in the case of chloramines, the stability of the disinfectant residual even when introduced to the environment (i.e., light, heat, soil, etc.). Therefore, it is important to dechlorinate the discharge before it reaches a drainage inlet or another water body. If flushing discharge flows to a sewer dechlorination is not required.*
9. Slowly open the flush hydrant; opening the hydrant too quickly can cause negative pressure in the distribution system. Flush the hydrant until an adequate pressure reading is obtained.
10. Once the flush is completed, slowly turn off the hydrant. If the hydrant is closed too quickly, a water hammer (pressure surge) may occur.

    Note: *Pressure regulated areas require an even slower shutdown of the hydrant. In pressure regulated areas, shut the hydrant down halfway while monitoring the pressure gauge and let the water flow for 30 to 45 seconds. This allows the distribution system to recover and permits water pressures to level off. Then, partially close the hydrant and again allow the system to recover. After the short wait, shut down the hydrant slowly until fully closed. Monitor the pressure gauge and avoid pressure spikes.*
11. After hydrant is closed, remove equipment from hydrant, and close all nozzle caps.

b. Safety Considerations

Before beginning the hydrant flushing, it is important to inspect the site for safety. The following issues should be addressed.

1. Water flow path to a nearby drain inlet should be unencumbered.
2. Drain inlets should be free of debris.
3. Potential flooding/damage to neighboring property should be strictly avoided.
4. The flow trajectory of the water should not endanger passing vehicles or pedestrian traffic.
5. Water should not cause slick or unsafe conditions in traveled areas.
6. No freestanding water should be left in extremely cold conditions; water could become icy and create slick or unsafe conditions.
7. Do not flush a hydrant if the above or any other conditions create an unsafe situation.

c. Sensitive Area Considerations

Sensitive areas are those that could be adversely impacted by a large influx of drinking water. Such areas might include creeks, ponds, or other water bodies.

Chloramine residual in the drinking water helps prevent the regrowth of bacteria. Chloramine is a combined form of chorine and ammonia, which is more stable than free chlorine. The concentration is measured as

total chlorine residual. Both chlorine and chloramine that are present in flush water are toxic to fish and other small freshwater biota and must be removed before the water reaches any natural water bodies. In addition, extremely silty water can potentially suffocate animals living in natural ponds and streams. The following questions should be addressed before flushing a hydrant in any area suspected as sensitive:

- Are the road surfaces free of significant debris that could flow into the drain inlets?
- Are curbs or ditches sufficient to handle hydrant flow without creating a buildup of silt?
- Are the surfaces over which water will flow free of possible contaminants such as oil, soil, etc?
- Will water discharged during the flow test erode unpaved areas, etc?

If any of the above conditions exist, steps should be taken to mitigate the situation and/or re-route the flow away from the sensitive area. If neither mitigation nor re-routing is possible, then the next available (i.e., not in a sensitive area) hydrant should be flushed instead.

3. Hydrant Flow Testing Procedure

For each of the hydrant flow tests one flow hydrant is opened while residual pressure is measured at two pressure hydrants. If a sufficient pressure drop is not generated with one hydrant flowing, a second hydrant should be opened. Generally, the two flow hydrants should be located adjacent to one another with one pressure hydrant upstream and the other pressure hydrant downstream of the flow hydrants.

a. Hydrant Flow Testing Equipment

Table 1 lists the equipment needed for hydrant flow testing. After safety equipment, the most important component for hydrant flushing is the flow diffuser/dechlorination equipment. This equipment reduces the energy of the water as the flow from the hydrant is released to the street gutter. Even though the flushing flow rate may be high, the energy diffuser will minimize damage from erosion and allow the water to flow down the gutter instead of spray across the street. The energy diffuser is sometimes used to mix dechlorination chemical. The two methods for dechlorination of potable water are injecting chlorine neutralizer such as Sodium Bisulfite or allowing the water to flow past a solid form of dechlorination chemical such as sodium Bisulfite or ascorbic acid. A metering pump may inject liquid or the dechlorination equipment may have an eductor and a flow control valve that will suck in the required amount of chemical. Dry chemical tablets may be placed in the flow diffuser, or in porous bags in the gutter. The equipment selected for use by the City will have directions for the proper application of chemical. Always sample water before it flows into a storm drain inlet to ensure it is fully dechlorinated.

Table 1 Hydrant Flow Test Equipment

Item	Quantity
Pressure gauge and necessary adaptor to connect gauge to hydrant	3
Dechlorinating hydrant diffuser with hose (as needed for directing flow) and dechlorinating tablets	3
Handheld pitot gage with conversion chart (not needed if diffuser includes built in pitot gage)	2
Adjustable Combination Hydrant and Spanner Wrench	4
Hand-held radios or push-to-talk type cell phones	4
18 inch pipe wrench	1

Adjustable 12 inch crescent wrench	1
12 inch channellock pliers	1
6 inch screwdriver	1
24 foot engineers tape measure	1
Roll of 1/2 inch x 520 inch PTFE tape for thread sealing	1
Clipboard with testing forms	1
Map for locating hydrants	1
Repair forms for identifying valves and hydrants that need repair	As needed
Cloth rags	As needed
Traffic Cones	As needed
Warning Signs	As needed

b. Hydrant Flow Testing Procedure

The essential guidelines of a hydrant flow test for model calibration are listed below. On the day of hydrant flow testing, all pressure and flow meters should be calibrated by comparing readings when attached to the same hydrant.

1. Identify the flow hydrant and the pressure hydrants. The proposed hydrant flow test sites will be provided by Carollo to the City.
2. Record the location, date, time, and temperature on the testing form provided by Carollo to the City.
3. Take a static pressure reading at each of the flow hydrants (F1 and F2) and pressure hydrants (P1 and P2) and record on testing form.
4. Attach flow gauge to the flow hydrant (F1).
5. Open the flow hydrant (F1). Make sure to avoid opening the flowing hydrant too fast to avoid water hammer. Dechlorinate the water as it is leaving the system.
6. Record flow and flow hydrant residual pressure.
7. Take a residual pressure reading at each pressure hydrant (the pressure should bottom out and then rise slightly before stabilizing). Record the residual pressure.
   A residual pressure drop (ΔP) of 10 psi is preferable, but 5 psi is acceptable.
   a. If $\Delta P \geq 10$ psi, go to next step.
   b. $\Delta P < 10$ psi, repeat steps above with two flowing hydrants. Flowing hydrants should be located adjacent to one another. The back-up hydrant shown on detail maps becomes a pressure hydrant and one of the original pressure hydrants becomes the second flow hydrant.
   c. If $\Delta P \geq 5$ psi with two flow hydrants, go to next step.
   d. If $\Delta P < 5$ psi, then the test failed and should be repeated.
8. Document all data on the testing forms that have been provided in Appendix A.
9. Slowly close the flowing hydrant. If two hydrants are flowing, close one at a time.

c. Contingencies

It is important to be prepared for unplanned events prior to commencing the hydrant flow tests. Some of the following issues may arise during hydrant flushing:

1. Loss of system pressure or water supply to a specific area.
2. The hydrant may continue to leak after shut down.
3. Customer complaints may arise after flushing a particularly sensitive area.

If there is a significant loss of pressure during a hydrant flow test, it could be an indication that there are valves in the system that are closed but should not be. Review the system maps to find valves that may be causing the low-pressure issue. Verify that they are open and repeat the flushing procedure.

Once a flush is complete, the operations staff will close the flow hydrant and pressure hydrants. If any of these facilities are not functioning properly, i.e. the hydrant continues to leak, a report should be made to repair the equipment.

Customer complaints that could arise during the hydrant flow tests include low water pressure, discolored water, odor, damaged laundry, etc. Both the crew working in the field, as well as staff answering the phones at the utility office should be sensitive to these issues and be prepared to answer any questions. Low water pressure will be corrected when the flow tests are complete. Customer water that is discolored or has an odor should be flushed from the plumbing by allowing the water to run until it is clear.

4. System Data Needs

Data required for the calibration consists of records of tank levels, and flows from booster stations, wells, and pressure reducing valve stations (PRVs), if available throughout the distribution system. This data should be recorded at the time of the hydrant flow testing, if possible. A spreadsheet was provided to the City to record this information at each hydrant test site.

If available, SCADA monitoring data can be provided. A target time interval of 5 to 15 minutes is sufficient for model calibration.

The data required is listed in Table 2.

Table 2 Data Gathering Parameters (if easily available)

Facility Type	Measurement	Unit	Interval	Source
Hydrant Testing Period				
Reservoirs	Level	ft	5 min	SCADA
Booster Pump Stations	Flow	gpm	5 min	SCADA
Booster Pump Stations	Discharge HGL	gpm	5 min	SCADA
Pressure Reducing Valve Stations	Flow	gpm	5 min	SCADA

a. Format of Data

i. SCADA Data

All SCADA data needs to be provided in MS Excel or a MS database format. Table 3 presents a sample format for the SCADA data.

Depending on the interval of data available and record keeping capabilities of the SCADA system, modifications may need to be made to the SCADA system prior to the hydrant testing week. It would be preferable to our team to obtain SCADA data on 5-minute intervals. However, 15-minute or hourly intervals

would be sufficient if 5-minute intervals are not possible. Please note the wells and booster pumps that are running at the time of the test for 15-minute and greater interval data. If the SCADA data is queried from each facility independently, the time of each data point should be included in the output report.

ii. Manual Facilities

For any manually operated facilities operated during the data gathering periods, an operational log should be substituted for the requested facility parameters. It is assumed that flow totalizers are used to take daily readings of the amount of water pumped during each 24-hour period. For any manually operated pump used during the hydrant testing period, the hours that the pump is on or off, along with the flow rate during each operation period will be needed. Photocopies of the log sheets for these pumps would be sufficient. If the City finds it more convenient, a handwritten or electronic log of all sites would also be sufficient.

Table 3 Sample SCADA Data Format

TANK 3 LEVEL		TANK 2 LEVEL		PS9 PRESSURE SUCT		PS9 PRESSURE DISC	
Time	Feet	Time	Feet	Time	psi	Time	psi
2/1/09 1:00	27.61	2/1/09 1:00	25.73	2/1/09 1:00	44.53	2/1/09 1:00	120.59
2/1/09 1:15	27.52	2/1/09 1:15	25.54	2/1/09 1:15	44.65	2/1/09 1:15	117.05
2/1/09 1:30	27.35	2/1/09 1:30	25.39	2/1/09 1:30	44.20	2/1/09 1:30	119.63
2/1/09 1:45	25.12	2/1/09 1:45	25.29	2/1/09 1:45	45.34	2/1/09 1:45	119.42
2/1/09 2:00	25.59	2/1/09 2:00	25.13	2/1/09 2:00	45.13	2/1/09 2:00	115.52
2/1/09 2:15	25.60	2/1/09 2:15	27.56	2/1/09 2:15	45.26	2/1/09 2:15	117.21
2/1/09 2:30	25.55	2/1/09 2:30	27.60	2/1/09 2:30	44.59	2/1/09 2:30	117.29
2/1/09 2:45	27.96	2/1/09 2:45	27.90	2/1/09 2:45	45.01	2/1/09 2:45	117.05
2/1/09 3:00	25.76	2/1/09 3:00	27.67	2/1/09 3:00	45.75	2/1/09 3:00	116.55
2/1/09 3:15	25.41	2/1/09 3:15	26.51	2/1/09 3:15	44.22	2/1/09 3:15	116.91
2/1/09 3:30	25.56	2/1/09 3:30	27.31	2/1/09 3:30	44.42	2/1/09 3:30	115.15
2/1/09 3:45	25.06	2/1/09 3:45	26.96	2/1/09 3:45	45.04	2/1/09 3:45	119.02
2/1/09 4:00	25.11	2/1/09 4:00	27.00	2/1/09 4:00	44.17	2/1/09 4:00	120.00

Notes:
(1) This sample was taken from a different SCADA system and thus may not represent the exact format of the City's SCADA output.

Table 1 - Fire Hydrant Test Results City to fill out

City of Shelton

Water System Plan

Hydrant Test #1

Date:	6/20/2017
Time:	10:30am
Pressure Zone:	UMVPZ

Flowing Hydrant		**Pressure Hydrant 1**		**Pressure Hydrant 1**	
Hydrant # / location	MV278	Hydrant # / location	MV277	Hydrant # / location	MV279
Static Pressure (psi)	66	Static Pressure (psi)	65	Static Pressure (psi)	62
Residual Pressure (psi)	50	Residual Pressure (psi)	60	Residual Pressure (psi)	69
Flow (gpm)	1060				
Flush Duration (psi)	30sec				

Hydrant Test #2

Date:	6/20/2017
Time:	10:50am
Pressure Zone:	Mountain PZ

Flowing Hydrant		**Pressure Hydrant 1**		**Pressure Hydrant 1**	
Hydrant # / location	MV247	Hydrant # / location	MV246	Hydrant # / location	MV249
Static Pressure (psi)	64	Static Pressure (psi)	63	Static Pressure (psi)	65
Residual Pressure (psi)	52	Residual Pressure (psi)	58	Residual Pressure (psi)	58
Flow (gpm)	1060				
Flush Duration (psi)	30sec				

Hydrant Test #3

Date:	6/20/2017
Time:	11:10am
Pressure Zone:	Mountain PZ

Flowing Hydrant		**Pressure Hydrant 1**		**Pressure Hydrant 1**	
Hydrant # / location	MV057	Hydrant # / location	MV056	Hydrant # / location	MV058
Static Pressure (psi)	58	Static Pressure (psi)	58	Static Pressure (psi)	59
Residual Pressure (psi)	50	Residual Pressure (psi)	52	Residual Pressure (psi)	52
Flow (gpm)	1130				
Flush Duration (psi)	30sec				

Hydrant Test #4

Date:	6/20/2017
Time:	12:45pm
Pressure Zone:	Capitol Hill PZ

Flowing Hydrant		**Pressure Hydrant 1**		**Pressure Hydrant 1**	
Hydrant # / location	CH012	Hydrant # / location	CH010	Hydrant # / location	CH013
Static Pressure (psi)	73	Static Pressure (psi)	72	Static Pressure (psi)	79
Residual Pressure (psi)	45	Residual Pressure (psi)	65	Residual Pressure (psi)	52
Flow (gpm)	1060				
Flush Duration (psi)	30sec				

Hydrant Test #5

Date:	6/20/2017
Time:	1:05pm
Pressure Zone:	High School PZ

Flowing Hydrant		**Pressure Hydrant 1**		**Pressure Hydrant 1**	
Hydrant # / location	DT102	Hydrant # / location	DT100	Hydrant # / location	DT105
Static Pressure (psi)	60	Static Pressure (psi)	68	Static Pressure (psi)	58
Residual Pressure (psi)	42	Residual Pressure (psi)	60	Residual Pressure (psi)	42
Flow (gpm)	1060				
Flush Duration (psi)	30sec				

Hydrant Test #6 Without Angleside BPS Off

Date:	6/20/2017
Time:	1:40pm
Pressure Zone:	Angleside PZ

Flowing Hydrant		**Pressure Hydrant 1**		**Pressure Hydrant 1**	
Hydrant # / location	AS020	Hydrant # / location	AS019	Hydrant # / location	AS021
Static Pressure (psi)	39	Static Pressure (psi)	32	Static Pressure (psi)	61
Residual Pressure (psi)	30	Residual Pressure (psi)	32	Residual Pressure (psi)	60
Flow (gpm)	920				
Flush Duration (psi)	30sec				

Hydrant Test #7 With Angleside BPS ON

Date:	6/20/2017
Time:	1:30pm
Pressure Zone:	Angleside PZ

Flowing Hydrant		**Pressure Hydrant 1**		**Pressure Hydrant 1**	
Hydrant # / location	AS020	Hydrant # / location	AS019	Hydrant # / location	AS021
Static Pressure (psi)	38	Static Pressure (psi)	32	Static Pressure (psi)	61
Residual Pressure (psi)	30	Residual Pressure (psi)	32	Residual Pressure (psi)	60
Flow (gpm)	920				
Flush Duration (psi)	30sec				

Table 2 - Fire Hydrant Test SCADA Data
City of Shelton
Water System Plan
SCADA DATA INFORMATION TO RECORD AT EACH HYDRANT TEST:

Hydrant Test #1

Reservoir Levels (ft):		City Sources Flows (gpm):		Pump Station Status/Flow (gpm):	
Angleside		City Well #1		Angleside BSP	
Capitol Hill		City Well #3	Not running	Mountain View BPS	
High School		City Well #4		Capitol Hill BPS	
Mountain View					
UMVPZ	121.6				

Other Comments: PRV station at Tarragon Ave. running 584 gpm. This station connects UMVPZ to Mt. View

Hydrant Test #2

Reservoir Levels (ft):		City Sources Flows (gpm):		Pump Station Status/Flow (gpm):	
Angleside		City Well #1		Angleside BSP	
Capitol Hill		City Well #3		Mountain View BPS	
High School		City Well #4	Not running	Capitol Hill BPS	
Mountain View	59.8				

Other Comments: PRV running 608 gpm.

Hydrant Test #3

Reservoir Levels (ft):		City Sources Flows (gpm):		Pump Station Status/Flow (gpm):	
Angleside		City Well #1		Angleside BSP	
Capitol Hill		City Well #3		Mountain View BPS	
High School		City Well #4	1100gpm	Capitol Hill BPS	
Mountain View	59.1				

Other Comments: PRV running 214 gpm.

Hydrant Test #4

Reservoir Levels (ft):		City Sources Flows (gpm):		Pump Station Status/Flow (gpm):	
Angleside	58.3	City Well #1		Angleside BSP	
Capitol Hill	64.3	City Well #3		Mountain View BPS	
High School	18.7	City Well #4		Capitol Hill BPS	500gpm
Mountain View	63.7				
UMVPZ	122.3				

Other Comments:

Hydrant Test #5

Reservoir Levels (ft):		City Sources Flows (gpm):		Pump Station Status/Flow (gpm):	
Angleside	57.6	City Well #1		Angleside BSP	
Capitol Hill	65.8	City Well #3		Mountain View BPS	
High School	19.5	City Well #4		Capitol Hill BPS	
Mountain View	59.1				
UMVPZ	121.1				

Other Comments:

Hydrant Test #6

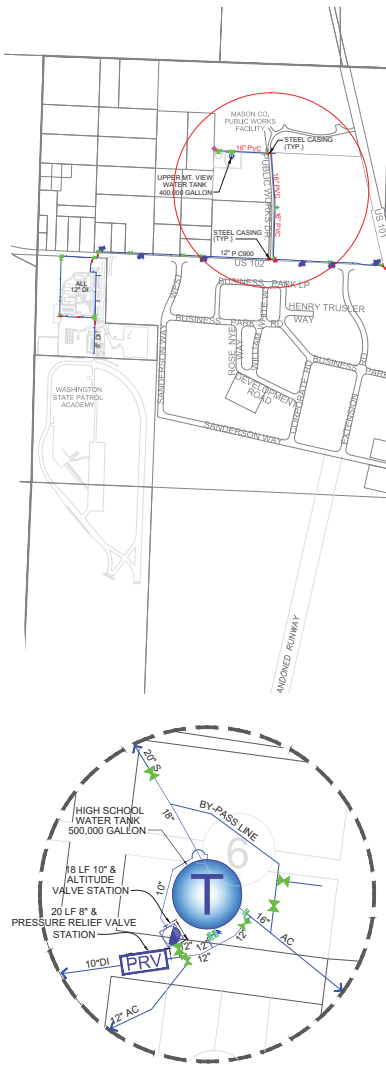
Reservoir Levels (ft):		City Sources Flows (gpm):		Pump Station Status/Flow (gpm):	
Angleside	59	City Well #1		Angleside BSP	
Capitol Hill	65.8	City Well #3		Mountain View BPS	
High School	19.5	City Well #4		Capitol Hill BPS	
Mountain View	59.1				
UMVPZ	120				

Other Comments:

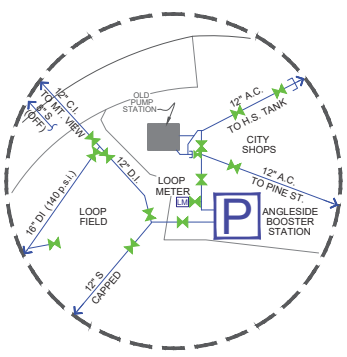
Hydrant Test #7

Reservoir Levels (ft):		City Sources Flows (gpm):		Pump Station Status/Flow (gpm):	
Angleside	58.3	City Well #1		Angleside BSP	1250gpm
Capitol Hill	65.8	City Well #3		Mountain View BPS	
High School	19.6	City Well #4		Capitol Hill BPS	
Mountain View	59.1				
UMVPZ	119.3				

Other Comments:



DETAIL 1
NTS



DETAIL 2
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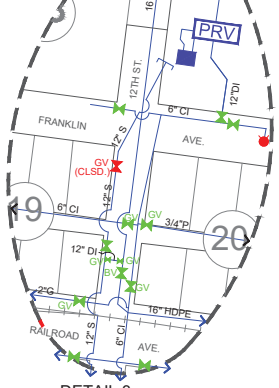

DETAIL 3
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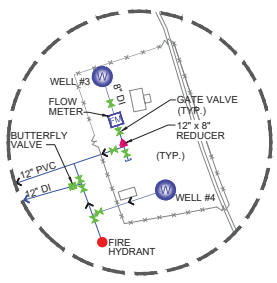

DETAIL 5
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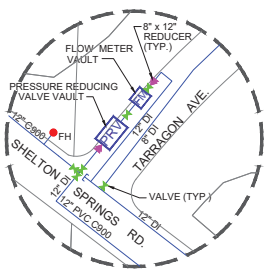


DETAIL 4
NTS

THIS MAP IS A REPRESENTATION OF THE CITY SHOWING APPROXIMATE LOCATIONS OF UTILITY STRUCTURES AND LINES. IT IS NOT A SURVEY ACCURATE DRAWING. THIS CITY OF SHELTON UTILITY MAP IS NOT VERIFICATION OF ALL UNDERGROUND UTILITY STRUCTURES AND LINES. FOR FIELD VERIFICATION OF UTILITIES

CONTACT:
UNDERGROUND UTILITY LOCATION CENTER
DEPT. 1082
P.O. BOX 34936
SEATTLE, WA 98124-1936
PH. #1 800 424-5555

LEGEND

- FIRE HYDRANT (City Maintained)
- FIRE HYDRANT (Private, no City maint.)
- GATE VALVE
- BUTTERFLY VALVE
- BLOWOFF ASSEMBLY
- AIR/ VACUUM ASSEMBLY
- REDUCER/ INCREASER
- CITY WATER TANK
- PUMP STATION
- PRESSURE RELIEF VALVE STATION
- ALTITUDE VALVE STATION
- WELL
- BV BUTTERFLY VALVE
- GV GATE VALVE (OPEN)
- GV GATE VALVE (CLOSED)
- WATER LINE

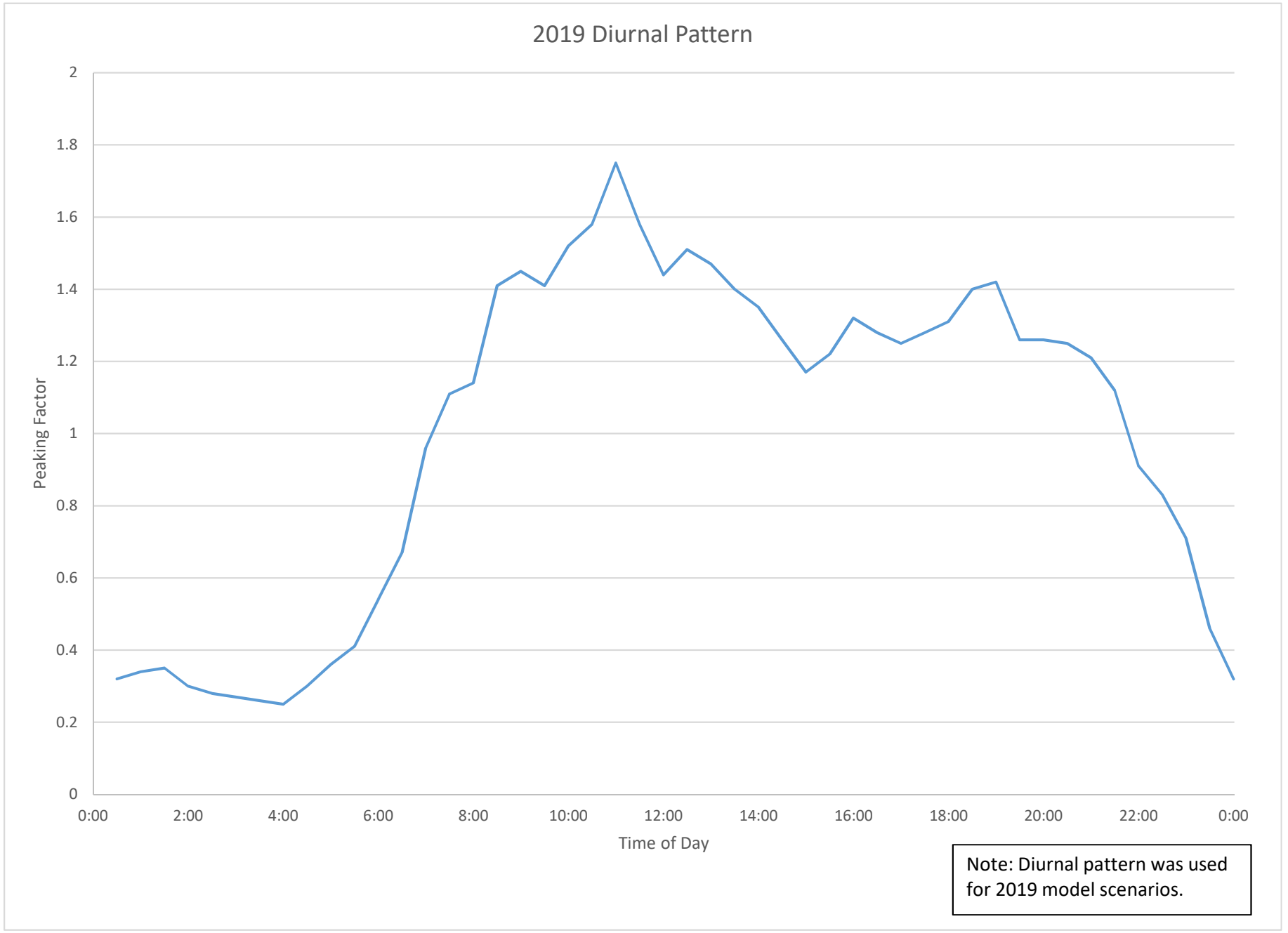
PIPE MATERIAL ABBREVIATIONS

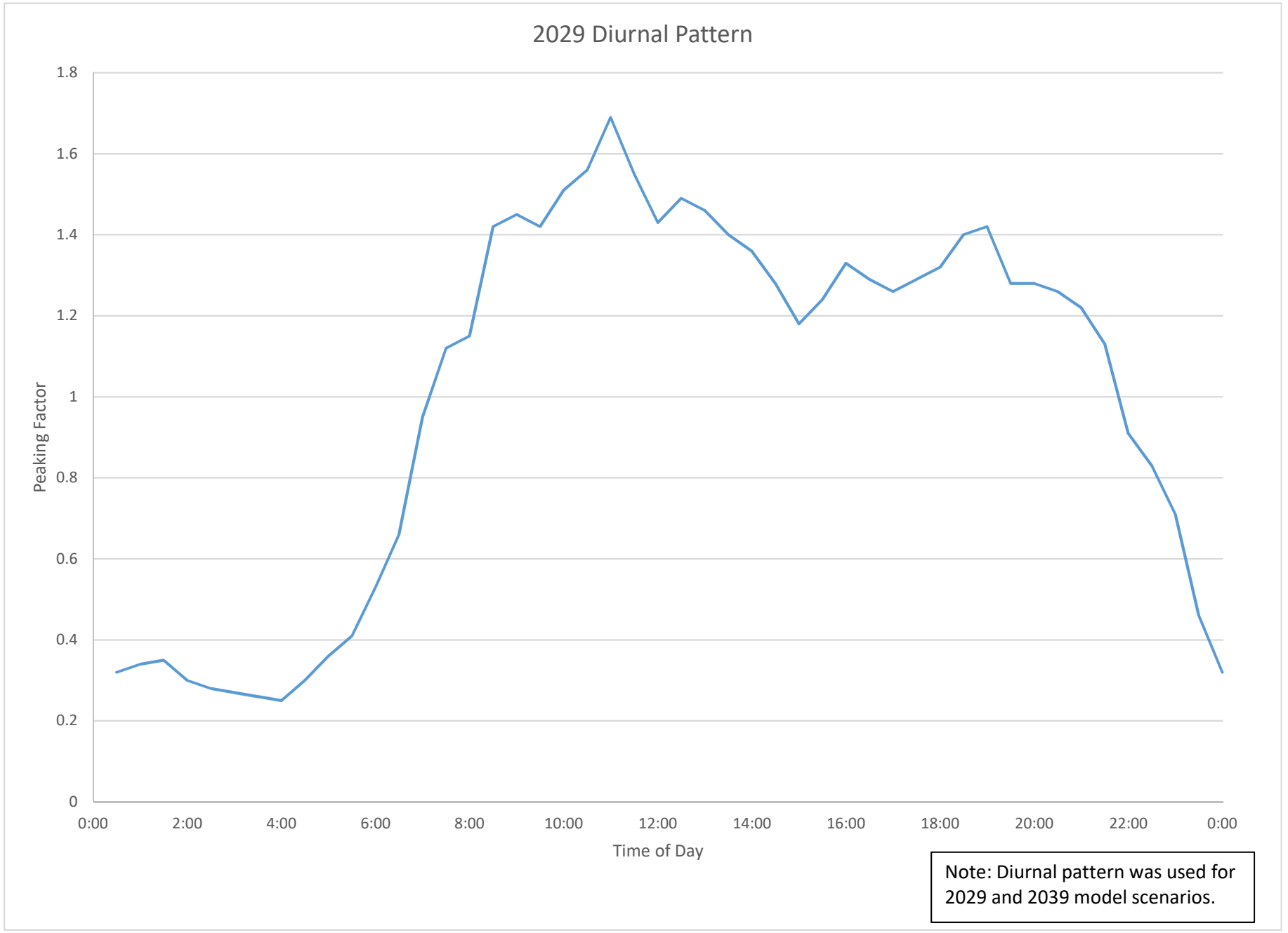
AC	=	ASBESTOS CONCRETE
C	=	COPPER
CI	=	CAST IRON
DI	=	DUCTILE IRON
G	=	GALVANIZED
H	=	HDPE (HIGH DENSITY POLYETHELYNE)
P	=	PVC (POLYVINYL CHLORIDE)
PE	=	POLYETHELYNE
S	=	STEEL
W	=	WOOD

PIPE MAT'L. ABBREVIATION
PIPE DIAMETER - (INCHES)
WATER LINE ##LETTER

CITY OF SHELTON'S
WATER MAP

05.2017 WATER MAP. dwg


2019 Diurnal Pattern
Peaking Factor
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00
Time of Day
Note: Diurnal pattern was used for 2019 model scenarios.


2029 Diurnal Pattern
Peaking Factor
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00
Time of Day
Note: Diurnal pattern was used for 2029 and 2039 model scenarios.

Appendix 5B

WATER RIGHTS SELF-ASSESSMENT

Water Right Self-Assessment Form for Water System Plans

331-372 • 1/13/2017

All water right permits, claims, and certificates must be evaluated in a water right self-assessment for all sources used to supply the water system. The self-assessment compares the parameters and other limitations of existing water rights against current and forecasted water production, as described in your water system plan, to determine whether the rights are adequate to serve your system's current and future water needs.

You must account for all sources of supply and total quantities of water withdrawn from the source. If you purchase water from another purveyor through a non-emergency intertie, you must complete the INTERTIES section of the self-assessment.

A Note on Exempt Wells

If you're seeking DOH approval of a new Group A or Group B water system using an exempt well, you must complete the self-assessment, although certain fields will not apply. Talk to your DOH regional planner about using the Water Right Self-Assessment form for a Small Water System Management Program instead of this version.

Local governments must ensure that an adequate potable water supply is available from the exempt well before issuing a building permit. Before developing a permit exempt well, check with your local authorities on their criteria for establishing an adequate potable water supply for your planned public water system.

Water Right Parameters

Below is a brief description of the parameters associated with a typical water right. For the self-assessment, you only need to describe the last two bulleted items if they apply to your water rights.

Source Type – this refers to whether the source is surface water, groundwater or a spring.

Source Location – this refers to the location of points of groundwater withdrawal or surface water diversion for each right.

Purpose of Use – this refers to the type of use, such as municipal water supply, community domestic, industrial or agricultural purposes.

Place of Use – this describes where water can be put to beneficial use under the right. Under the 2003 Municipal Water Law, RCW 90.03.386, the place of use for a water right held for municipal water supply purposes may be the system's service area as identified in an approved water system plan or small water system management program. See Ecology Policy 2030 for information on how Ecology administers the Municipal Water Law.

Washington State Department of Health

If you need this publication in an alternative format, call 800.525.0127 (TDD/TTY call 711). This and other publications are available at www.doh.wa.gov/drinkingwater.

Period of Use – this refers to time-of-year limitations in which the water right may be put to use. If any water right has a time-of-year limitation, please include this information in the INTERRUPTIBLE WATER RIGHTS section.

Provisions or Limiting Conditions – this refers to any provisions or conditions placed on the water right. If a water right has a limiting condition or other provision, such as a collection and reporting requirement, other than a time-of year limitation, include this information in the ADDITIONAL COMMENTS section at the bottom of the self-assessment and in the water system plan narrative.

See Ecology Policy 1040 for more information on water right terminology. If you have questions about your water rights, please contact the Ecology regional office in your area.

Completing the Water Right Self-Assessment Form

The self-assessment is a Word document to allow users to make changes or to expand the document. You may use another format, if preferred, as long as all required information is included. Below is a description of all fields and how to complete them. This form is divided into four different sections. Each section is described in the headings below.

See the column identifiers (A, B, C, etc) at the bottom of each column for guidance in completing the necessary calculations.

Water Right Permit, Certificate, or Claim Number: This number is assigned by Ecology when a permit application is filed. It's listed at the top of the permit or certificate. For water right claims, this is the registration number stamped in the lower left hand corner of the claim form.

WFI Source #: Identify the individual sources (e.g. well #1, well #2) as defined on the DOH Water Facilities Inventory form. If a water right is associated with multiple sources, list all sources in the same row in this column. If a source is associated with multiple water rights, identify each water right on a separate row.

If you have any source(s) that is not currently being used (categorized as standby, back-up, or emergency), and the source has an associated water right that is not listed in column #1, please include the source and water right information in the ADDITIONAL COMMENTS section. This will identify that the source is still intended for a beneficial use under RCW 90.03.015(4). See Ecology Policy 1040.

EXISTING WATER RIGHTS SECTION *(olive green color, top section)*

This section refers to existing water rights. It does not include any water right applications that have been submitted to Ecology.

Primary Qi (Instantaneous Quantity): This is also known as instantaneous flow rate. It's the amount of water allowed to be taken under the right from the source during a period of peak operation. For surface water, this is generally expressed in terms of cubic feet per

second (cfs). For groundwater, this is generally expressed in terms of gallons per minute (gpm). One cfs equals 448.8 gpm. Please indicate the units of measurement you are using for each source. If there are situations where the flow rate will be limited (e.g. limitations established on the source when other sources are utilized), please note them in the ADDITIONAL COMMENTS section in the form and in the WSP narrative.

Non-Additive Qi: This term was formally known as "supplemental." Your water rights may use the old terminology. See Ecology Policy 1040 for more information. Not all water rights have non-additive quantities. If a water right has non-additive Qi quantities, include the non-additive quantity in this field. This is generally listed in the "quantity, type of use, period of use" section on both permits and certificates. *Non-additive quantities should not be included in the primary Qi totals.*

Primary Qa (Annual Quantity): This is the amount of water that can be taken from the source under the right on an annual basis. It's usually expressed in terms of acre-feet. An acre-foot is the amount of water necessary to submerge an acre of land to a depth of one foot. One acre-foot equals 43,560 cubic feet or 325,851 gallons of water.

Non-Additive Qa: This term was formerly known as "supplemental." Your water rights may use the old terminology. See Ecology Policy 1040 for more information. Not all water rights have non-additive quantities. If a water right has non-additive Qa quantities, include the non-additive quantity in this field. This is generally listed in the "quantity, type of use, period of use" section on both permits and certificates. *Non-additive quantities should not be included in the primary Qa totals.*

CURRENT SOURCE PRODUCTION SECTION *(light green color, top section)*

This section refers to how much water is withdrawn from the source under each water right for the most recent full calendar year. You will need to determine any excess or deficiency for each water right after calculating how much water was withdrawn compared to how much water is allowed under each water right. If demand has decreased over past years, you may wish to include historic maximum production information in the ADDITIONAL COMMENTS section. This will provide a more complete picture of the use of your water rights.

Use the water use data and demand projections from your water system plan to define current and projected water needs. You can determine if you'll need additional water rights based on the comparison of existing water rights, current water production, and projected 10- and 20-year needs.

Total Qi (Instantaneous Quantity): This refers to the total maximum instantaneous flow rate withdrawn from the source under each water right during the most recent calendar year. For surface water, this is expressed in terms of cubic feet per second (cfs). For groundwater, this is expressed in terms of gallons per minute (gpm). One cfs equals 448.8 gpm.

Current Excess or Deficiency (Qi): Please calculate the excess or deficiency for each water right after comparing the total amount withdrawn against each water right. Please use parentheses for deficient amounts.

Total Qa (Annual Quantity): This refers to the total volume of water withdrawn from each source under each water right during the most recent calendar year. It's usually expressed in acre-feet.

Current Excess or Deficiency (Qa): Please calculate the excess or deficiency for each water right after comparing the total amount withdrawn against each water right. Please use parentheses for deficient amounts.

10-YEAR FORECASTED SOURCE PRODUCTION SECTION *(light blue color, top section)*

This section refers to how much water you project to withdraw from each source in ten years as determined in your water system plan. Please complete this section in the same manner (using the same units of measurement) as the current source production section using your 10-year forecasted amounts.

20-YEAR FORECASTED SOURCE PRODUCTION SECTION *(darker blue color, top section)*

This section refers to how much water you project to withdraw from each source in twenty years as determined in your water system plan. Please complete this section in the same manner (using the same units of measurement) as the current source production section using your 20-year forecasted amounts. If you are unable to provide 20-year forecasts for each source, you may choose to include the combined 20-year total at the bottom.

PENDING WATER RIGHTS SECTION *(second section of form)*

Please complete this section for any water right applications that have been submitted to Ecology. Please include the application number, whether it's a new or a change application, the date submitted, and the total quantities requested.

INTERTIES SECTION *(third section of form)*

This section must be completed by purveyors who purchase any amount of wholesale water. If your system sells water to another public water system, include the quantity sold in the CURRENT SOURCE PRODUCTION section.

Purchasers of wholesale water must account for all water obtained through the intertie for non-emergency supply purposes. This is to ensure that all sources of supply are considered when evaluating whether new water rights are needed within 20 years.

Please identify the maximum quantity of water, expressed in the same manner as the above sections, allowed under each intertie contract. If there are limiting conditions or temporary

agreements that effect the long-term use of the intertie, you must account for such limiting conditions when evaluating the current and forecasted water supply needs in your water system plan.

Finally, purchasers of wholesale water are responsible for ensuring that the underlying water right (held by the purveyor selling water) are adequate for such use. You should confirm that the selling system has accounted for the wholesale area in their water system plan to ensure that the water right authorizes the distribution of water through the intertie.

INTERRUPTIBLE WATER RIGHTS SECTION *(bottom section of form)*

This section refers to water rights that have an annual time-of-year interruption. Please complete this section for any water right listed in the above fields that has a time-of-year interruption. Please include the water right number, describe the limitation, and the time period of interruption. Purveyors with interruptible rights should develop a water shortage response plan as part of their water system plan to describe how demand will be met during periods of interruption through aggressive demand-side conservation, fixing leaks or other means.

ADDITIONAL COMMENTS SECTION *(bottom section of form)*

If the system has any source that is not currently being used on a regular basis (such a source may be categorized as stand-by, back-up, emergency), you should identify the source in this section if the source has an associated water right that is not listed in the above sections. The purpose is to identify that such water rights are still intended for a future beneficial use as required under RCW 90.03.015(4). See Page 2, Item 9 (b) in ECY Policy 2030. For these water rights, please briefly describe the future intended use of the source and when you expect to utilize the water right. This does not refer to sources categorized as seasonal sources.

You should also include any other comments in this section that will explain aspects of your water right portfolio that are not identified above.

Water Right Self-Assessment Form for Water System Plan

Mouse-over any link for more information. Click on any link for more detailed instructions.

Water Right Permit, Certificate, or Claim # *If water right is interruptible, identify limitation in yellow section below	WFI Source # If a source has multiple water rights, list each water right on separate line	Existing Water Rights Qi= Instantaneous Flow Rate Allowed (GPM or CFS) Qa= Annual Volume Allowed (Acre-Feet/Year) This includes wholesale water sold				Current Source Production – Most Recent Calendar Year Qi = Max Instantaneous Flow Rate Withdrawn (GPM or CFS) Qa = Annual Volume Withdrawn (Acre-Feet/Year) This includes wholesale water sold				10-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold				20-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold			
		Primary Qi Maximum Rate Allowed	Non-Additive Qi Maximum Rate Allowed	Primary Qa Maximum Volume Allowed	Non-Additive Qa Maximum Volume Allowed	Total Qi Maximum Instantaneous Flow Rate Withdrawn	Current Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume Withdrawn	Current Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 10 Years	10-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 10 Years	10-Year Forecasted Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 20 Years	20-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 20 Years	20-Year Forecasted Excess or (Deficiency) Qa
745	S01	2,250 gpm		3,620 ac-ft													
1008-A	S02	3,000 gpm		1,190 ac-ft				246 ac-ft									
2072-A	S05	1,200 gpm			1,344 ac-ft			661 ac-ft									
G2-25241	S04	1,000 gpm			1,500 ac-ft			258 ac-ft									
	TOTALS =	7,450 gpm		4,810 ac-ft		1,458 gpm	5,992 gpm	1,165 ac-ft	3,645 ac-ft	2,681 gpm	4,769 gpm	2,016 ac-ft	2,794 ac-ft	3,500 gpm	3,950 gpm	2,632 ac-ft	2,178 ac-ft
Column Identifiers for Calculations:		A		B		C	=A-C	D	=B-D	E	= A-E	F	=B-F	G	=A-G	H	=B-H

PENDING WATER RIGHT APPLICATIONS: Identify any water right applications that have been submitted to Ecology.

Application Number	New or Change Application?	Date Submitted	Quantities Requested			
			Primary Qi	Non-Additive Qi	Primary Qa	Non-Additive Qa

INTERTIES: Systems receiving wholesale water complete this section. Wholesaling systems must include water sold through intertie in the current and forecasted source production columns above.

Name of Wholesaling System Providing Water	Quantities Allowed In Contract		Expiration Date of Contract	Currently Purchased Current quantity purchased through intertie				10-Year Forecasted Purchase Forecasted quantity purchased through intertie				20-Year Forecasted Purchase Forecasted quantity purchased through intertie			
	Maximum Qi Instantaneous Flow Rate	Maximum Qa Annual Volume		Maximum Qi Instantaneous Flow Rate	Current Excess or (Deficiency) Qi	Maximum Qa Annual Volume	Current Excess or (Deficiency) Qa	Maximum Qi 10-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 10-Year Forecast	Future Excess or (Deficiency) Qa	Maximum Qi 20-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 20-Year Forecast	Future Excess or (Deficiency) Qa
1															
2															
3															
TOTALS =															
Column Identifiers for Calculations:	A	B		C	=A-C	D	=B-D	E	=A-E	F	=B-F	G	=A-G	H	=B-H

INTERRUPTIBLE WATER RIGHTS: Identify limitations on any water rights listed above that are interruptible.

Water Right #	Conditions of Interruption	Time Period of Interruption
1		
2		
3		

ADDITIONAL COMMENTS:

Appendix 6A

DRINKING WATER QUALITY MONITORING PROGRAM

Water Quality Monitoring Schedule

System: SHELTON CITY OF **PWS ID: 78170 N** **Region: SOUTHWEST**
Contact: Matt C Deemer **Group: A - Comm** **County: MASON**

NOTE: To receive credit for compliance samples, you must fill out laboratory and sample paperwork completely, send your samples to a laboratory accredited by Washington State to conduct the analyses, AND ensure the results are submitted to DOH Office of Drinking Water. There is often a lag time between when you collect your sample, when we credit your system with meeting the monitoring requirement, and when we generate the new monitoring requirement.

Coliform Monitoring Requirements

	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022
Coliform Monitoring Population	21413	21413	21413	17463	17463	21413	21313	21313	21313	21313	21313	21413
Number of Routine Samples Required	20	20	20	20	20	20	20	20	20	20	20	20

- Collect samples from representative points throughout the distribution system.
- Collect required repeat samples following an unsatisfactory sample. In addition, collect a sample from each operating groundwater source.
- For systems that chlorinate, record chlorine residual (measured when the coliform sample is collected) on the coliform lab slip.

Chemical Monitoring Requirements

Distribution Monitoring

Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*	
Lead and Copper	30	Jan 2019 - Dec 2021	standard - 3 year	08/22/2018	***Aug 2021***	
Asbestos	0	Jan 2020 - Dec 2028	waiver - 9 year	09/10/2013		
Total Trihalomethane (THM)	2	Jan 2021 - Dec 2021	reduced - 1 year	11/09/2020	***Nov 2021***	
Halo-Acetic Acids (HAA5)	2	Jan 2021 - Dec 2021	reduced - 1 year	11/09/2020	***Nov 2021***	

Water Quality Monitoring Schedule

Notes on Distribution System Chemical Monitoring

For *Lead and Copper*:
- Collect samples from the COLD WATER side of a KITCHEN or BATHROOM faucet that is used daily.
- Before sampling, make sure the water has sat unused in the pipes for at least 6 hours, but no more than 12 hours (e.g. overnight).
- If you are sampling from a faucet that has hot water, make sure cold water is the last water to run through the faucet before it sits overnight.
- If your sampling frequency is annual or every 3 years, collect samples between June 1 and September 30.

For *Asbestos:* Collect the sample from one of your routine coliform sampling sites in an area of your distribution system that has asbestos concrete pipe.

For *Disinfection Byproducts (HAA5 and THM):* Collect the samples at the locations identified in your Disinfection Byproducts (DBP) monitoring plan.

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
- Washington State grants monitoring waivers for various test panels /analytes. Please note that we may require some monitoring as a condition of some waivers. We have granted complete waivers for dioxin, endothal, glyphosate, diquat, and insecticides.
- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

Source S02 *WELL #1 AHB646* *Well* *Use - Permanent* *Susceptility - High*

Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*
Nitrate	1	Jan 2021 - Dec 2021	standard - 1 year	10/12/2020	***Mar 2021***
Complete Inorganic (IOC)	1	Jan 2020 - Dec 2028	waiver - 9 year	10/09/2018	Oct 2027
Iron	1	Jan 2020 - Dec 2022	standard - 3 year	10/09/2018	Oct 2022
Volatile Organics (VOC)	1	Jan 2020 - Dec 2022	standard - 3 year	07/11/2019	Jul 2022
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	04/23/2018	
Pesticides	0	Jan 2020 - Dec 2022	waiver - 3 year	04/13/2009	
Soil Fumigants	0	Jan 2020 - Dec 2022	waiver - 3 year		
Gross Alpha	1	Jan 2020 - Dec 2025	standard - 6 year	09/08/2016	Sep 2022
Radium 228	1	Jan 2020 - Dec 2025	standard - 6 year	09/08/2016	Sep 2022

Source S04 *WELL #3 AHB645* *Well* *Use - Permanent* *Susceptility - Low*

Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*
Nitrate	1	Jan 2021 - Dec 2021	standard - 1 year	10/12/2020	***Oct 2021***
Complete Inorganic (IOC)	1	Jan 2020 - Dec 2028	waiver - 9 year	10/09/2018	Oct 2027

Water Quality Monitoring Schedule

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
- Washington State grants monitoring waivers for various test panels /analytes. Please note that we may require some monitoring as a condition of some waivers. We have granted complete waivers for dioxin, endothal, glyphosate, diquat, and insecticides.
- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

Source S04 *WELL #3 AHB645* *Well* *Use - Permanent* *Susceptility - Low*

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Due
Iron	1	Jan 2020 - Dec 2022	standard - 3 year	10/09/2018	Oct 2022
Volatile Organics (VOC)	1	Jan 2020 - Dec 2022	standard - 3 year	07/09/2013	***Mar 2021***
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	04/23/2018	
Pesticides	0	Jan 2020 - Dec 2022	waiver - 3 year	04/13/2009	
Soil Fumigants	0	Jan 2020 - Dec 2022	waiver - 3 year		
Gross Alpha	1	Jan 2020 - Dec 2025	standard - 6 year	10/20/2016	Oct 2022
Radium 228	1	Jan 2020 - Dec 2025	standard - 6 year	10/20/2016	Oct 2022

Source S05 *WELL #4 AEC942* *Well* *Use - Permanent* *Susceptility - Low*

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Due
Nitrate	1	Jan 2021 - Dec 2021	standard - 1 year	08/21/2020	***Oct 2021***
Complete Inorganic (IOC)	1	Jan 2020 - Dec 2028	waiver - 9 year	07/14/2016	Jul 2025
Volatile Organics (VOC)	1	Jan 2020 - Dec 2025	waiver - 6 year	10/12/2020	
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	04/25/2017	
Pesticides	0	Jan 2020 - Dec 2022	waiver - 3 year	04/29/2008	
Soil Fumigants	0	Jan 2020 - Dec 2022	waiver - 3 year		
Gross Alpha	1	Jan 2020 - Dec 2025	standard - 6 year	08/19/2015	***Aug 2021***
Radium 228	1	Jan 2020 - Dec 2025	standard - 6 year	08/19/2015	***Aug 2021***

Water Quality Monitoring Schedule

Other Information

Other Reporting Schedules	*Due Date*
Measure chlorine residuals and submit monthly reports if your system uses continuous chlorination:	monthly
Submit Consumer Confidence Report (CCR) to customers and ODW (Community systems only):	07/01/2021
Submit CCR certification form to ODW (Community systems only):	10/01/2021
Submit Water Use Efficiency report online to ODW and to customers (Community and other municipal water systems only):	07/01/2021
Send notices of lead and copper sample results to the customers sampled:	30 days after you receive the laboratory results
Submit Certification of customer notification of lead and copper results to ODW:	90 days after you notify customers

Special Notes

None

Southwest Regional Water Quality Monitoring Contacts

For questions regarding chemical monitoring:	Sophia Petro: (360) 236-3046 or sophia.petro@doh.wa.gov
For questions regarding DBPs:	Regina Grimm, p.e.: (360) 236-3035 or regina.grimm@doh.wa.gov
For questions regarding coliform bacteria and microbial issues:	Southwest Office: (360) 236-3030 or SWRO.Coli@doh.wa.gov

Additional Notes

The information on this monitoring schedule is valid as of the date in the upper left corner on the first page. However, the information may change with subsequent updates in our water quality monitoring database as we receive new data or revise monitoring schedules. There is often a lag time between when you collect your sample and when we credit your system with meeting the monitoring requirement.

We have not designed this monitoring schedule to display all compliance requirements. The purpose of this schedule is to assist water systems with planning for most water quality monitoring, and to allow systems to compare their records with DOH ODW records. Please be aware that this monitoring schedule does not include constituents that require a special monitoring frequency, such as monitoring affiliated with treatment.

Any inaccuracies on this schedule will not relieve the water system owner and operator of the requirement to comply with applicable regulations.

If you have any questions about your monitoring requirements, please contact the regional office staff listed above.

Appendix 6B

CONSUMER CONFIDENCE REPORT

City of Shelton

ANNUAL WATER QUALITY AND EFFICIENCY REPORT

2020 Report for the Year 2019

The City is pleased to provide you with our 2019 Annual Water Quality Report. You will be happy to know that our drinking water is safe and meets all state and federal requirements for water-quality standards, safety, and appearance. Our goal is, and always has been, to provide you a safe and dependable supply of drinking water. We encourage public interest and participation in our utility decisions affecting drinking water. Citizen input is welcomed at our regularly scheduled Council Meetings. Please visit the City's website at www.sheltonwa.gov or contact the City Clerk's office for a schedule of meetings.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda. This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it. If you have any questions about this report or concerning your water utility, please contact the Water Department at (360) 432-5192 or the Public Works Department at (360) 426-9731.

Water System Information

Public Water System ID# 78170N

City of Shelton-Public Works Department
525 W Cota Street
Shelton, W A98584

Water System Lead Worker - Matt Deemer
Water Quality Specialist - Ken Dickinson
KDickinson@ci.shelton.wa.us

THE PURPOSE OF THIS REPORT:

The Federal Safe Drinking Water Act (SDWA) and the US Environmental Protection Agency (EPA) requires that every community water system must prepare and distribute a consumer confidence report (water quality report) annually to the public it serves. This annual report describes your drinking water sources, provides actual water quality test results, compares those results to stringent federal water quality standards, and informs you about important water quality issues. Although this report is technical in nature, we have attempted to provide this information in such a way as to make it meaningful to our customers. Our goal is to help you understand what is in your water and how it may affect you. So please, take a few minutes to read this important information regarding the quality of the water you and your family drink every day.

2019 Test Results for the City of Shelton
Total Water System

Compounds Pesticides	Results	Units	MRL	Date Collected
Chlorpyrifos	ND	Ug/L	0.03	5/19-11/19
Dimethipin	ND	Ug/L	0.2	5/19-11/19
Ethoprop	ND	Ug/L	0.03	5/19-11/19
Oxyfluorfen	ND	Ug/L	0.05	5/19-11/19
Profenofos	ND	Ug/L	0.3	5/19-11/19
Tebuconazole	ND	Ug/L	0.2	5/19-11/19
Permethrin Total	ND	Ug/L	0.04	5/19-11/19
Compounds SVOCs	**Results**	**Units**	**MRL**	**Date Collected**
Butylated	ND	Ug/L	0.03	5/19-11/19
*O-Toluidine	ND	Ug/L	0.007	5/19-11/19
*Quinoline	ND	Ug/L	0.02	5/19-11/19
Alcohols	**Results**	**Units**	**MRL**	**Date Collected**
*1-Butanol	ND	Ug/L	2	5/19-11/19
*2-Methoxyethanol	ND	Ug/L	0.4	5/19-11/19
*2-Propen-1-OL	ND	Ug/L	0.5	5/19-11/19
Compounds Metals	**Results**	**Units**	**MRL**	**Date Collected**
Germanium	ND	Ug/L	0.3	5/19-11/19
Manganese	Well 1 15.5, Wells 3, 4 ND	Ug/L	0.4	5/19-11/19
Compounds	**Results**	**Units**	**MRL**	**Date Collected**
Bromide	ND	Ug/L	20	5/19-11/19
Total Organic Carbon	ND	Ug/L	1000	5/19-11/19

Wells 1, 3, 4

EPA Unregulated Contaminants Level 1, 3, 4

Chlorine: Disinfectant Residual Results

Contaminant	MCLG	MCL	Your Water	Range
Chlorine Cl_2 (mg/L)	4	4	.01 to 1.0	.01 to 4.0

2019 Volatile Organic Compounds

Contaminant	MRDLG	MRDL	Your Water	Range
Trihalomethanes TTHM [Total ppb]	NA	80	29.6	NA
Haloacetic Acids HAA5 (ppb)	NA	60	9.9	NA

2019 Coliform Bacteria and Fecal Coliform

Contaminant	MCLG	SRL	MCL	Unit Measure
Total Coliform Bacteria	0	0	Presence of coliform bacteria in 5% of monthly samples	# per 100 mL
Fecal coliform (E.coli)	0	0	A routine sample & repeat sample are total coliform positive, & one is also fecal coliform or E.coli positive	# per 100 mL

2019 Test Results by Water Source Nitrates

Source	Contaminant	MCLG	SRL	MCL	Unit measure
Well #1	Nitrate	10	0.5	10	Ug/L
Well #3	Nitrate	10	0.5	10	Ug/L
Well #4	Nitrate	10	0.5	10	Ug/L

2019 Volatile Organic Compounds

Source	Contaminant	SRL	MCL	Unit measure
Well #1	EPA/State regulated	0.5	Varies	Ug/L

EPA Unregulated Contaminants Monitoring (UCMR4)

Compounds	Results	Units	SRL	Trigger
Halo-acetic acids	3.2	Ug/L	1	45
Halo-acetic acids	2.2	Ug/l	1	45
Trihalomethanes	9.3	Ug/L	0.5	60
Trihalomethanes	9.3	Ug/L	0.5	60

Water Pressures

Standards recommend that normal water pressure should range between 30 and 80 pounds per square inch (psi). If water pressure is greater than 80 psi the customer should consider installing a pressure-reducing valve (PRV) to reduce pressure to a normal level of between 30 and 80 psi. The City is working to resolve areas that have a pressure of 30 psi by adding additional storage and pumping capabilities to the City water system.

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City is responsible for providing high quality drinking water and is also required to test for lead and copper contamination every 3 years; the next testing is in June 2021.

Although the City complies with state lead free requirements, the City cannot control the variety of materials used in private plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested.

What do the tables mean?

Every year the City is mandated by the Department of Health to test for contaminant compounds. The tables on the back page display the results for each City water source and the compounds tested in 2018. Each table also lists the ideal goals for public health (MCLG), the highest level allowed by regulation (MCL), the amount detected, and the usual sources of such contamination. Below is a key and definitions to terms in the tables.

Key & Definition to Tables

Term	Definition
AL	Action Level: The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.
MCLG	Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLs as feasible using the best available treatment technology.
MFL	Million Fibers per liter
mg/L	Milligrams per liter
mL	Milliliter
MRDLG	Maximum Residual /Disinfectant Level Goal: The level of a drinking water disinfectant
below	which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminates (e.g. chlorine, chloramines, chlorine dioxide).
MRL	Method Reporting Limit
N/A	Not Applicable
ND	Not Detected
pCi/L	Picocuries per liter (a measure of radioactivity)
PPB	Parts per billion or Micrograms per liter
PPM	Parts per million or Milligrams per liter (mg/l)
RDL	Reporting Detection Limits

Source Information

The City has four water sources. We currently draw water from Well #1, Well #3, and Well #4. The wells and Shelton Springs are all located on a City owned 266-acre water shed and the wells draw water deep from underground aquifers. The most recent evaluation of the City's Water System Model (Carollo, March 2016) indicated that redevelopment (replacement) of Well #1 is needed to supply the systems existing customers. At the time of this publication the Shelton City Council is considering refurbishing the well and replacing the pump. Also slip lining the distribution water line from Well #1 to the High School Tank.

All City supplied water is treated with the least amount of chlorine necessary to provide safe drinking water to everyone, while minimizing taste and odor issues. Staff collects samples daily to verify if the appropriate residual level of chlorine exists in the system required for public safety. Shelton Springs is an additional water source that the City can use in the event of a water emergency. It is not chlorinated.

For further information on the City's water system, please refer to the 2010 Water Comprehensive Plan, (new Water Comprehensive Plan will be available sometime in 2019) available from our Public Works office. The 2010 Water Comprehensive Plan includes a water system analysis, demand forecasting, water conservation and reliability, and a source water assessment and protection plan.

To ensure that tap water is safe to drink, the Department of Health and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington Department of Agriculture regulations established limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health affects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or EPA website http://water.epa.gov/drink/.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791 or EPA website http://water.epa.gov/drink/info/.

Backflow Prevention (Cross Connection Control)

In a continuing effort to ensure that we maintain the highest quality of water, the City has a Cross Connection Control Program that requires customers with a potential backflow or cross connections to install a backflow prevention assembly. It also requires (in compliance with state law) customers to have them tested by a certified backflow assembly tester annually. The most common cause of backflow is backsipohonage due to lowered main pressure caused by instances of high water withdrawal (i.e., during firefighting). When backsiphonage occurs, water can be siphoned from a home or business bringing unwanted materials into the distribution system. For example, typical in-ground sprinkler systems may have stagnant or polluted water in the pipes that could be siphoned back into the water system and forced back into your home. For this reason, the City requires all sprinkler systems to have a backflow prevention assembly installed. A Double Check Valve Assembly (DC) is the minimum assembly allowed for sprinkler systems in the city. If you have any questions regarding this program, or would like more information, please call (360) 432-5192.

Tastes and Odors

Taste and odor problems within the distribution system are generally caused by pressure surges in the main water system, which causes sediment in the pipes to become suspended in the water. Among the causes of pressure disturbances are watermain breaks, street construction, or the use of firefighting connections. This is why the City flushes its water mains periodically. The most common cause of pressure changes in home plumbing systems is the corrosion of galvanized plumbing systems. This situation is usually indicated by yellow or reddish water and appears in the first water drawn from the faucet each day.

Appendix 6C

COLIFORM MONITORING PLAN AND DETECTION ADVISORY

Coliform Monitoring Plan

Coliform Monitoring Plan

Coliform Monitoring Plan for: City of Shelton

A. System Information

Water System Name	County	System I.D. Number
City of Shelton	Mason	78170N
Attach copy of current WFI		
Number of Routine Samples Required Monthly by Regulation: 10	Number of Sample Sites Needed to Represent the Distribution System: 13	

B. Routine and Repeat Sample Locations

Location/Address for Routine Sample Sites	Location/Address for Repeat Sample Sites
X1. 427 E. I St. sample Tap in meter Box	1-1. 427 E. I St. in meter Box 1-2. 2202 Laurel St. (U) 1-3. 2136 Laurel St. (D) 1-4. Well #4 Well House Tap
X2. #12 X Mas Tree Ln. sample Tap in meter Box	2-1. #12 X mas Tree Ln. meter Box 2-2. #10 X mas Tree Ln. (U) 2-3. #13 X mas Tree Ln. (D) 2-4. Well #4 Well House Tap
X3. 211 W. Y St. sample Tap in meter Box	3-1. 211 W. Y St. meter Box 3-2. 220 W. Y St. (U) 3-3. 223 W. Y St. (D) 3-4. Well #4 Well House Tap
Location/Address for Routine Sample Sites	Location/Address for Repeat Sample Sites
X4. 1206 N. 8th St. sample Tap in meter Box	1-1. 1206 N. 8th St meter Box 1-2. 1207 N. 8th St. (U) 1-3. 1120 Elizabeth (D)

	1-4. Well #4 Well House Tap
X5. Birch & Otter St. sample Tap By Meter Box	2-1. Birch & Otter St. By meter Box 2-2. 411 E. Birch St. (U) 2-3. 512 Otter St. (D) 2-4. Well #3 Well House Tap
X6. 503 Fir St sample Tap in Meter Box	3-1. 503 Fir St. Meter Box 3-2. 502 Fir St. (U) 3-3. 621 Elk St. (D) 3-4. Well #3 Well House Tap

If the number of Routine samples needed to cover the distribution system requires that more than three Routine sites are needed, attach additional sheets as needed.

Coliform Monitoring Plan for: _____

A. System Information

Water System Name	County	System I.D. Number
Attach copy of current WFI		
Number of Routine Samples Required Monthly by Regulation:	Number of Sample Sites Needed to Represent the Distribution System:	

B. Routine and Repeat Sample Locations

Location/Address for Routine Sample Sites	Location/Address for Repeat Sample Sites
X1. ToBin & Walnut sample Tap in meter Box	1-1. ToBin & Walnut meter Box 1-2. 1619 ToBin St. (U) 1-3. 402 Walnut (D) 1-4. Well #3 Well House Tap
X2. 203 S. 7th St. sample Tap in meter Box	2-1. 203 S. 7th St. meter Box 2-2. 709 Cota St (U) 2-3. 706 Cota St (D) 2-4. Well #3 Well House Tap
X3. 1000 W. Pine St sample Tap in meter Box	3-1. 1000 W. Pine St. meter Box 3-2. 902 W. Pine St. (U) 3-3. 1139 Franklin St. (D) 3-4. Well #3 Well House Tap
Location/Address for Routine Sample Sites	**Location/Address for Repeat Sample Sites**
X4. 528 Laurel St sample Tap in meter Box	1-1. 528 Laurel St meter Box 1-2. 628 N. 6th St (U) 1-3. 521 Laurel St (D)

	1-4. WELL #3 WELL HOUSE TAP
X5. 1220 BAYVIEW ST. SAMPLE TAP IN METER BOX	2-1. 1220 BAYVIEW ST. METER BOX 2-2. 351 12TH ST. (U) 2-3. 1226 BAYVIEW ST. (D) 2-4. WELL #3 WELL HOUSE TAP
X6. 704 MERIDIAN AVE SAMPLE TAP IN METER BOX	3-1. 704 MERIDIAN AVE METER BOX 3-2. 1901 S. 7TH ST. (U) 3-3. 2005 S. 7TH ST. (D) 3-4. WELL #3 WELL HOUSE TAP

If the number of Routine samples needed to cover the distribution system requires that more than three Routine sites are needed, attach additional sheets as needed.

	1-4.
X5. 910 DEARBORN SAMPLE TAP IN METER BOX	2-1. 910 DEARBORN METER BOX 2-2. 907 DEARBORN ST. (U) 2-3. 911 DEARBORN ST. (D) 2-4. WELL #3 WELL HOUSE TAP
X6.	3-1. 3-2. 3-3. 3-4.

If the number of Routine samples needed to cover the distribution system requires that more than three Routine sites are needed, attach additional sheets as needed.

C. Routine Sample Rotation Schedule

Month	Routine Site(s)	Month	Routine Site(s)
January	1	July	3
February	2	August	4
March	3	September	1
April	4	October	2
May	1	November	3
June	2	December	4

D. Month Following Unsatisfactory Samples

Description of Sample Collection Locations for Month Following Unsatisfactory Samples
THE MONTH AFTER 5 Follow up samples will BE submitted, mark as "ROUTINE" Type samples. We will collect THOSE samples FROM 3 ROUTINE sample sites, AS WELL AS FROM 2 OF THE REPEAT sample sites.

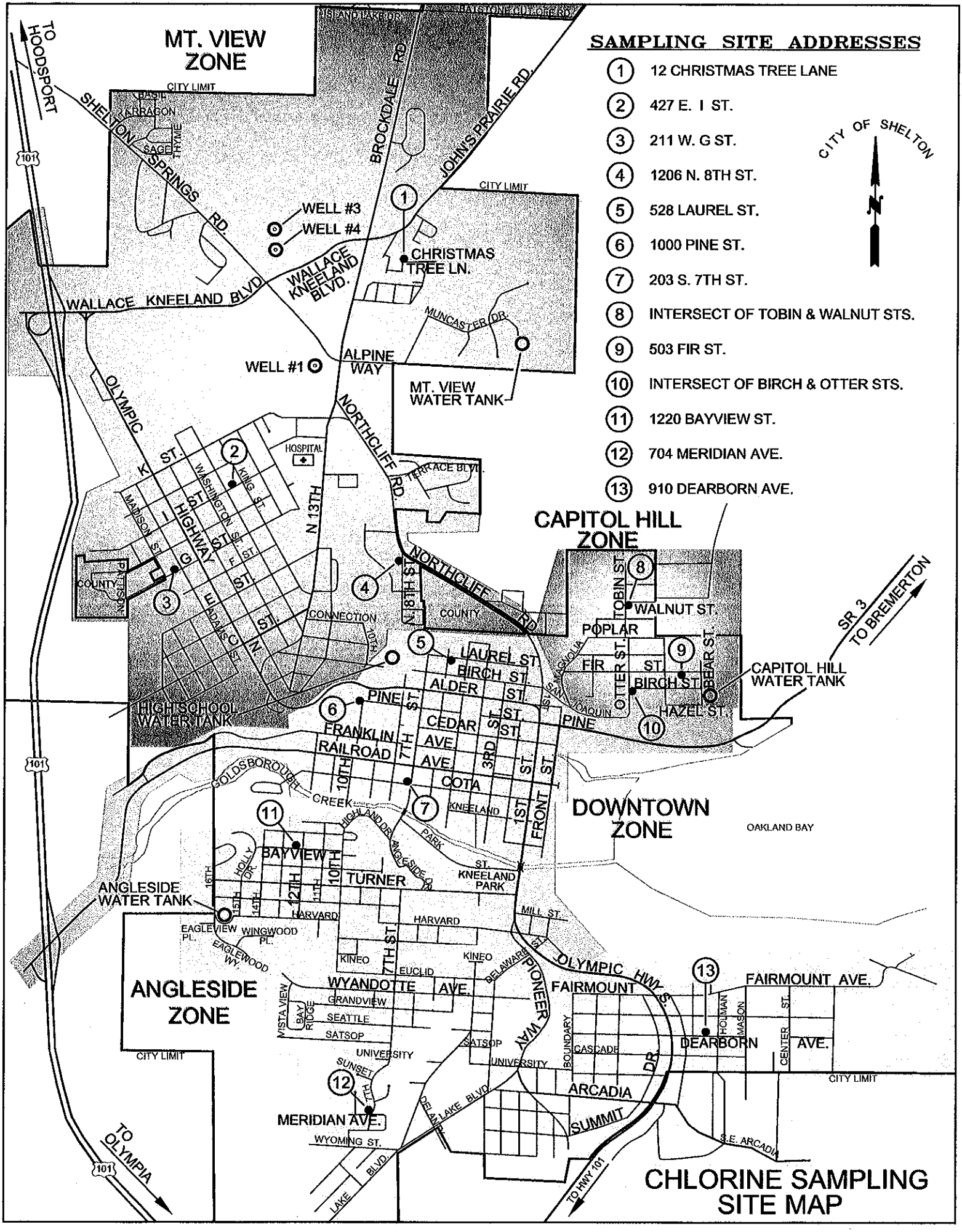
E. Preparation Information

System Name	Date Plan Completed	Dates Modified
CITY OF SHELTON		
Name of Plan Preparer K.D.	**Position**	**Daytime Phone #** ( )
State Reviewer	**Date Last Review**	

F. System Map

G. Emergency Telephone Numbers

In case of an emergency, the following numbers will be called:
Ecology's Emergency telephone number: 360-407-6300
ODW Emergency Numbers: 360-236-3030 and 1-877-481-4901


MT. VIEW ZONE
CAPITOL HILL ZONE
DOWNTOWN ZONE
ANGLESIDE ZONE
SAMPLING SITE ADDRESSES
1 12 CHRISTMAS TREE LANE
2 427 E. I ST.
3 211 W. G ST.
4 1206 N. 8TH ST.
5 528 LAUREL ST.
6 1000 PINE ST.
7 203 S. 7TH ST.
8 INTERSECT OF TOBIN & WALNUT STS.
9 503 FIR ST.
10 INTERSECT OF BIRCH & OTTER STS.
11 1220 BAYVIEW ST.
12 704 MERIDIAN AVE.
13 910 DEARBORN AVE.
CITY OF SHELTON
TO HOODSPORT
SHELTON SPRINGS RD.
CITY LIMIT
BASIL
ARRAGON
SAGE
THYME
BROCKDALE RD.
JOHNS PRAIRIE RD.
ISLAND LAKE DR.
BALSTONE CUTOFF RD.
WELL #3
WELL #4
CHRISTMAS TREE LN.
WALLACE KNEELAND BLVD.
MUNCASTER DR.
WELL #1
ALPINE WAY
MT. VIEW WATER TANK
OLYMPIC
K ST.
HOSPITAL
NORTHCLIFF RD.
TERRACE BLVD.
WASHINGTON ST.
KING ST.
MADISON ST.
HIGHWAY 101
I ST.
G ST.
F ST.
PARKING COUNTY
N 13TH
N 18TH ST.
COUNTY
CONNECTION
10TH
EDWARDS
N ST.
LAUREL ST
BIRCH ST
ALDER ST.
PINE ST.
HIGH SCHOOL WATER TANK
FRANKLIN
RAILROAD
CEDAR ST.
AVE.
3RD ST.
7TH
10TH
COTA
1ST ST.
FRONT ST.
GOLDSBOROUGH CREEK
KNEELAND PARK
HIGHLAND DR.
ANGLESIDE DR.
PARK ST.
OAKLAND BAY
BAYVIEW
HOLLY DR.
16TH
15TH
14TH
12TH
11TH
10TH
TURNER
ANGLESIDE WATER TANK
EAGLEVIEW PL.
WINGWOOD PL.
EAGLEWOOD WY.
HARVARD
MILL ST.
KINEO
7TH ST
EUCLID
WYANDOTTE AVE.
GRANDVIEW
SEATTLE
SATSOP
UNIVERSITY
VISTA VIEW
BAY RIDGE
SUNSET
12TH
MERIDIAN AVE.
WYOMING ST.
DELAWARE
PIONEER WAY
OLYMPIC HWY S.
FAIRMOUNT
FAIRMOUNT AVE.
BOUNDARY
CASCADE
DR.
HOLMAN
MASON
CENTER ST.
AVE.
DEARBORN
CITY LIMIT
ARCADIA
SUMMIT
DELAWARE BLVD.
S.E. ARCADIA
LAKE BLVD.
TO OLYMPIA
TO HWY 101
TOBIN ST.
WALNUT ST.
POPLAR
MAGNOLIA
OTTER ST.
FIR ST.
BIRCH ST.
BEAR ST.
HAZEL ST.
JOAQUIN
CAPITOL HILL WATER TANK
SR 3
TO BREMERTON
CHLORINE SAMPLING SITE MAP

Boil Water Notice and Coliform Detection Advisory

NOTICE TO WATER SYSTEM CUSTOMERS

Fecal Coliform (or E. Coli) Maximum Contaminant Level (MCL) Exceeded
Acute MCL Violation

The City of Shelton water system, DOH Identification Number 78170N, located in Mason County submitted routine coliform drinking water samples to a certified laboratory during the month of _____, (year). The test results indicated that at the time the sampling was conducted there was a contamination problem in the system.

The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of fecal coliform or E. Coli in water systems constitutes a serious health concern. Fecal coliform or E. Coli are generally not harmful themselves. But their presence in drinking water is serious because they are usually associated with sewage or animal wastes.

The presence of these bacteria in drinking water is generally a result of a problem with water treatment or the pipes that distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue.

These symptoms, however, are not just associated with disease causing organisms in drinking water. EPA has set an enforceable drinking water standard for fecal coliform and E. Coli to reduce the risk of these adverse health effects. Drinking water which meets this standard is usually associated with little or none of the risk and should be considered safe.

The problem has been under investigation and the following steps have been or are being taken at this time:

Insert current mitigation efforts.

In order to ensure the safety of the City's water customers throughout the duration of this emergency, **IT IS RECOMMENDED THAT WATER USERS HEAT ALL TAP WATER INTENDED FOR HUMAN CONSUMPTION TO A ROLLING BOIL FOR THREE TO FIVE FULL MINUTES.** Bottled drinking water may also be obtained in grocery and convenience stores. The City of Shelton will notify water system customers when the tap water is again safe to drink.

The City of Shelton is presently working to correct the problem. You may call _____ (24 hours/day) with any further questions or concerns.

Oct. 29. 03

"Building A Stronger Community TOGETHER"

DRINKING WATER WARNING

The City of Shelton Water System, ID # 78170N, located in Mason County is contaminated with fecal coliform.

Fecal coliform bacteria were confirmed in the water supply on Wednesday, October 29, 2003. These bacteria can make you sick and are a particular concern for people with weakened immune systems.

DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST. Bring all water to a boil, let it boil 3–5 minutes, and let it cool before using. Boiled or purchased bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until *further notice*. Boiling kills bacteria and other organisms in the water.

Fecal coliform and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some elderly, and people with severely compromised immune systems. The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice about drinking water from their health care provider.

What happened? What is the suspected or known source of contamination?

Fecal bacteria were confirmed in a water sample result reported October 29, 2003. At this time, the source of contamination is not known. It is possible that contaminants may have entered the water system during the tremendous rainfall that occurred last week.

The following is being done to correct the problem:

We have turned on the chlorinators that are installed at each of our wells. It will likely take several days before you will notice chlorine in your water.

Staff from the State Department of Health and the Shelton Water Department will inspect the water system looking to identify where contaminants may have entered the water system. Any needed repairs will be performed promptly.

We will notify you when you no longer need to boil the water. We anticipate resolving the problem as soon as possible and appreciate your patience as we solve this problem.

For more information, please contact City of Shelton Public Works Department at 426-9731.

Please share this notice with all the other people who drink this water, especially those who may not have receiv this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do th by posting this notice in a public place or distribution copies by hand or mail.

This notice is sent to you by the City of Shelton Water System on October 29, 2003.

Questions & Answers

Public Health Advisory: Coliform

September 2002
331-179

Why must I boil my water?

Recent testing shows that your water system is contaminated with organisms that could cause illness.

Who can be affected? Can I become ill?

Anyone who drinks contaminated water may become ill. Infants, young children, the elderly, and people with severely compromised immune systems are more at risk of illness.

Who are people with compromised immune systems?

People who are on chemotherapy, organ or bone marrow recipients, those with HIV or AIDS, malnourished children, infants, and some of the elderly have compromised or weakened immune systems. An infection from a disease-causing organism may lead to very serious health problems for these people.

Can these diseases be spread in ways other than drinking the water?

Yes. Many of these disease-causing organisms are shed in the feces of infected people. In fact, some infected people do not have any symptoms but still shed these organisms. Childcare workers, young children who attend childcare, and caregivers for people who are sick and shedding these organisms are at the greatest risk of becoming ill. Washing hands with soap and water after using the toilet and before preparing food prevents the spread of diseases to others.

What are the symptoms to watch for?
What should I do if I think I have a waterborne illness?

Disease-causing organisms in water can cause diarrhea, stomach cramps, bloating, gas, fatigue, weight loss, nausea, vomiting, and/or fever. Symptoms may appear as early as a few hours to several days after infection and may last more than two weeks. If you are ill with these symptoms, contact your health care provider.

How can I make the water safe?

Boiling is the best way to ensure water is free of illness-causing organisms. Bring the water to a rolling boil for 3-5 minutes. When it cools, refrigerate the water in clean covered containers.
If you don't want to boil your water, you can disinfect the water using household bleach. Do not use bleach that contains perfume, dyes, or other additives. Use 1/8-teaspoon bleach per gallon of water, mix thoroughly, and then let stand for 60 minutes before using.

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

HELPING TO ENSURE SAFE RELIABLE DRINKING WATER

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The City of Shelton routinely monitors for the presence of drinking water contaminants. Last month, the presence of total coliform bacteria was detected in our water system.

No immediate risk to health exists because of this situation. Total coliform is quite common in the environment and generally not harmful. Additional tests were taken and no harmful coliform, such as fecal coliform bacteria or *E. coli*, were detected in our drinking water. The presence of total coliform is an indication that there could be a problem with our distribution system.

What Should I Do?

This is not an emergency. You do not need to boil your water or take any other action. However, total coliform bacteria are considered a possible indicator that disease-causing organisms may also be present.

People with severely compromised immune systems, infants, and some elderly may be at increased risk of health effects. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of health effects are available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or the state Department of Health Division of Drinking Water at 1-800-521-0323.

What Is Being Done To Resolve the Problem?

The City is working with State Department of Health officials to identify the source of the coliform bacteria. The City water crew has flushed the system, taken additional water samples, and inspected for obvious system problems.

Within the next ten days, the City will introduce a low level of chlorine into the water to disinfect the distribution system. Chlorine will be introduced into the drinking water at a concentration level routinely used by other local water utilities. Chlorination will continue for approximately two weeks, at which time conditions in the water system will be re-evaluated.

You may notice a change in the smell and taste of your water. However, the level of chlorine introduced into the water is well within accepted health standards and is not considered a health risk. If you have a health issue that makes chlorine a concern, you should discuss this with your health care provider.

The City will keep you informed about progress and resolution of this matter through our monthly utility statements (beginning in May) and on the City's website: www.ci.shelton.wa.us.

For more information, please contact the City of Shelton Public Works Department at 426-9731.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

We appreciate your cooperation and apologize for any inconvenience that this may cause in your household or business. We anticipate eliminating this problem quickly and restoring delivery of high quality water to you as soon as possible.

This notice is being sent to you by the City of Shelton Public Works Department.

State Water System ID# 78170N

Appendix 7A

WELLHEAD PROTECTION PLAN

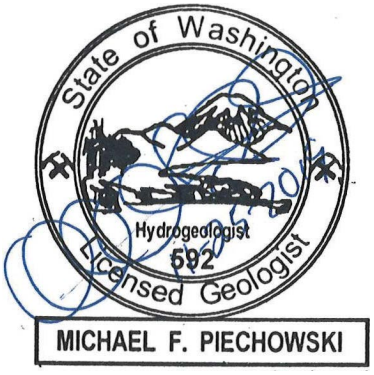
CITY OF SHELTON
WELLHEAD PROTECTION PLAN
SHELTON, WASHINGTON

NOVEMBER 2019

by

Matthew G. Lutz, GIT
Staff Geologist

Michael F. Piechowski, LHG
Principal Hydrogeologist



FIGURES

APPENDIX

WATER WELL DATABASE
US EPA INFORMATIONAL PAMPHLET
HAZARDOUS SPILL NOTIFICATION LETTER
SUSCEPTIBILITY SURVEYS
EDR (PROVIDED ELECTRONICALLY ON ATTACHED CD)

Executive Summary

Wellhead Protection Area Definition

A wellhead protection area (WHPA) is a representation of where the water produced by a given well comes from. It is based upon delineated capture zones, which describe the area of an aquifer (and all overlying material) that can contribute water to the well in a given period of time. Capture zones are typically defined as time-of-travel periods of six months, one, five, and ten years.

The City of Shelton relies on three main wells (Wells 1, 3, and 4) for their groundwater needs and has an emergency backup source at Shelton Springs if needed. There are three aquifers in which the groundwater is pumped out of: the Recessional Aquifer, the Sea Level Aquifer, and the Deep Aquifer. Shelton Springs is in the Recessional Aquifer, but this source is currently inactive due to water quality concerns. As it is a backup source, it is included in this update. Wells 1, 3, and 4 are all screened in the Sea Level Aquifer, which is the main aquifer for the City. Well 1 also appears to be completed in the Deep Aquifer and pumps from both aquifers when the well is on.

The City of Shelton WHPAs were originally defined using three different methods in the initial development of the City's Wellhead Protection Plan. We evaluated the changes to the system since the initial delineation and determined that with minor adjustments, the previously-developed models and calculations were still valid. Consequently, a similar set of approaches was employed for the delineation of capture zones for this update.

The capture zones for Shelton Springs within the Recessional Aquifer were modeled in a numerical model generated in Groundwater Modeling System (GMS), a pre- and post-processor for MODFLOW. The capture zones For Wells, 1, 3, and 4 in the Sea Level Aquifer were delineated via the hydrogeologic mapping approach, where the results from an analytical model, the aquifer's potentiometric surface, and the aquifer's hydraulic conductivity were combined to calculate time-of-travel capture zones. The Deep Aquifer capture zones for Well 1 were calculated using an analytical model.

Numerical models are a highly detailed, three-dimensional representation of water flow through the identified hydrogeologic layers. The hydrogeologic mapping approach is a detailed, two-dimensional representation that combines an analytical model with hydrogeologic data. An analytical model is a less detailed two-dimensional representation of water flow through a homogeneous, isotropic groundwater system with a uniform gradient.

The capture-zone modeling results indicate a generally southwesterly trending groundwater flow within the all three aquifers. For the capture-zone modeling, Wells 3 and 4 were considered one point of withdrawal due to their close proximity. Within the six-month time of travel zone, all of the capture zones for the wells completed in the Sea Level Aquifer coalesced into a single zone.

Existing and Potential Contamination Hazard Identification

The inventory of potential contamination sources within the WHPA was performed according to the Washington State Department of Health guidance document: *Inventory of Potential Contaminant Sources in Washington's Wellhead Protection* Areas (1993). Environmental Data Resources, Inc. (EDR), an on-line database research company, reviewed 26 federal and state environmental databases for any known or potential contaminant sites within a circle with a 1.85-mile radius that encompasses all of the delineated WHPAs. This resulted in a list of 235 potentially hazardous sites that were reviewed as a part of this update. The locations, types of listing, and nature of these sites were evaluated, resulting in a subset of 112 listings considered to pose a risk to groundwater. These were mapped, then evaluated further.

An evaluation of various land-use categories and activities within the City was also performed. The results were ranked as to their respective risks and included in the list of potential hazards. Robinson Noble completed the field survey of the capture zones and added three additional sites to the potential hazards list.

After completing this process, 76 sites or categories of land-use were identified as known or potential hazards to the City's wells. These were prioritized and ranked such that the wellhead protection implementation process can address each site or land use in a systematic manner. Each site was ranked according to four factors. The factors are proximity of potential hazard to the WHPA, type of contamination, severity of the contamination, and straight-line distance from the wells to the potential hazard.

Protection Strategies and Implementation Tasks

The completion of wellhead protection planning provides no safeguards unless effective management strategies are implemented to prevent potential contamination of groundwater sources. With the hazards identified, the Wellhead Protection Plan (WHPP) provides six strategic strategies and 26 specific tasks for the City to undertake to complete the process. Also included is a detailed review of the Washington State Spill Response Plan and a contingency plan to address the possible loss of one or more water sources.

1.0 Introduction

1.1 Wellhead Protection Program

The City of Shelton operates a Group-A public water system that uses ground water as a source and is mandated under federal and state law to implement a wellhead protection program (Section 1428 of the 1986 Amendments to the federal Safe Drinking Water Act, WAC 246-290, and RCW Chapters 43.20.050, 70.119A.060, and 70.119A.080). In response to the 1986 Amendments to Section 1428 of the Federal Safe Drinking Water Act, the Washington Administrative Code (WAC) was modified in July 1994 to include mandatory wellhead protection measures for Group A public water systems (WAC 246-290). The 2010 changes to WAC 246-290-135 require the delineation of a six-month time-of-travel zone in addition to the 1-, 5-, and 10-year zones. The overall goal of the state wellhead protection program is to prevent the contamination of ground waters used by public water systems. This is to be accomplished by the definition of management zones around public wells, detection of any existing ground water contamination sources, and through the management of potential sources of groundwater contamination prior to their entry into the drinking water system. The state Department of Health requires that a Wellhead Protection Plan (WHPP) shall, at a minimum, include the following aspects:

- A completed susceptibility assessment
- A delineated wellhead protection area
- An inventory of potential contamination threats
- Distribution of findings to required entities
- Contingency plans for alternative sources of drinking water
- Appropriate spill/incident response measures

Under the WAC, local public water systems have primary responsibility for developing, implementing, and updating local wellhead protection programs. Due to the limited jurisdictional and regulatory authority afforded most purveyors, it is essential that they work with other local, state, and federal agencies possessing the appropriate authority. The Washington State Department of Health (Health) oversees the wellhead protection program.

1.2 Scope of the City of Shelton's Wellhead Protection Plan Update

The City of Shelton is solely dependent on groundwater sources to serve its needs. The Shelton Public Works Department oversees the water distribution system and serves water to an area approximately slightly larger than the incorporated area of the city. Approximately 9,000 customers are served through 3,350 connections. The City currently operates three production wells to meet water supply demands. At the present time and into the near future, the use of groundwater constitutes the City's primary and most economical guaranteed source of supply.

The last update of the City's Wellhead Protection Plan was approximately 20 years ago. There have been some significant changes to the water system since the last update. Shelton Springs, formerly the main water source for the City, is now considered an emergency backup source. Well 2 failed and was replaced by Well 4. There has been a significant amount of development and growth in the region. While the current land uses in and around the wellhead protection areas do

not generate large sources of potential hazards, current and historical land uses including gas stations, dry cleaners, aggregate mining, industrial warehouses, vehicle repair shops, and recycling centers do present potential hazards.

This wellhead protection plan update focuses on three primary areas:

- A hydrologic evaluation of the aquifers used by the City and the delineation of WHPAs for each of the City's production wells,
- An inventory of potentially hazardous materials inside the delineated WHPAs, and
- The development of management, spill response, and contingency plans.

2.0 Hydrogeologic Assessment

2.1 Introduction

The basis for the wellhead protection process is the representation of where the water produced by a given well comes from. This is called a capture zone, which describes the area of an aquifer (and all overlying material) that can contribute water to the well within a given period of time. Capture zones are defined for time-of-travel periods of six months, and one, five, and ten years. There are several methods to define the capture zones, as described in the Washington State Wellhead Protection Program Guidance Document (Washington Department of Health, 2010). For this plan, we refined the numerical model, the hydrogeologic mapping model, and the analytical model that were originally developed for the 1999 Shelton Wellhead Protection Plan. An analytical model is a two-dimensional representation of water flow through the identified hydrogeologic layers. Hydrogeologic mapping can account for changes in aquifer properties, unlike analytical modeling, and is therefore more accurate and detailed than analytical modeling. A numerical model is a very detailed three-dimensional representation of the hydrogeology.

2.2 Previous Studies

In the late 1960s, the U.S. Geological Survey conducted a comprehensive, regional hydrogeologic study of Mason County. This investigation, Water Supply Bulletin No. 29 (Molenaar and Noble, 1970), contained geologic mapping and the collection and interpretation of basic information concerning groundwater resources. The basic data includes a well database and water quality analyses. This information was used extensively for this assessment and was supplemented with more recent information.

Studies specific to the study area include the City of Shelton Water System Plan, an Environmental Impact Statement (EIS) study for a development in the study area, well construction reports, and other consultant reports. As part of the City's Water System Plan (Economic & Engineering Services, Inc., 1988), Hart Crowser Inc. conducted a hydrogeologic assessment of the water resources of the City of Shelton. An approximate recharge area for Shelton Springs and three cross sections that transect the study area were presented therein. Of particular value to this project was a Draft EIS pertaining to the Evergreen Heights Subdivision (Howard Godat & Associates, Inc., 1995) located in the northern portion of the study area. Within that EIS is a hydrogeologic assessment conducted by Robinson & Noble. Water levels measured in ten on-site test borings allowed for a detailed potentiometric surface map of the property that provided important information regarding the groundwater flow directions in the northeastern portion of the study area.

In 1999, Robinson & Noble, Inc. conducted a hydrogeologic assessment of the Shelton Springs as it related to a proposed expansion of a nearby school. Much of this study focused on the Reces-

sional Aquifer System. Later in 1999, Robinson & Noble, Inc. prepared the original Wellhead Protection Plan for the City of Shelton. That effort provided the basis for the current update to the City's Wellhead Protection Plan.

2.3 Database

Since the preparation of the City's original Wellhead Protection Plan (WHPP), the City of Shelton has ceased the use of the Shelton Springs as a primary source due to concerns regarding water quality but maintains the springs as a backup source. The City has sufficient production capacity from their wellfield to rely solely on wells for supply. Well 2 reached the end of its useful service life and has been replaced by Well 4, which is a similarly constructed well located approximately 20 feet from Well 2.

Though there have been some changes to the water system, these changes are minimal enough to allow us to use the same well database and groundwater modeling efforts from the previous WHPP without compromising accuracy. The 1999 calculations were inherently conservative, based on the water right limits, not the actual use at the time. As the water rights are unchanged, the calculations remain valid, but we have updated our database and figures with the locations of the new wells. Figure 1 shows the map of the study area with the locations of Wells, 1, 3, and 4, as well as Shelton Springs.

The 1999 WHPP developed an extensive water well database (presented in the appendix) for the study area. The database includes the wells of record in the study area at the time for which a quarter-quarter section location, or finer, was available. Well logs with insufficient location information were not included in the database. A total of 195 well records were collected, of which 165 were obtained from the Washington State Department of Ecology. This data set was supplemented by logs and information found in published studies and Robinson & Noble files for the area. The well locations were plotted on Figure 2. Well locations were cross-checked between the information sources when possible. We have updated this database with new wells where appropriate, such as the City's Well 4.

Information in the database is considered to be generally accurate. However, errors may exist for individual wells because field verification for each well was not possible or feasible. The database includes thirty well logs collected from the USGS Water Supply Bulletin No. 29. These wells have been field-checked, and their locations are reliable. For wells with multiple information sources, data accuracy was improved by cross-referencing data between the sources. For wells with a single data source, particularly DOE well reports, the data is less reliable.

Well logs were collected for an area of 12 square miles. Database well coverage throughout the study area is variable (Figure 2). Well densities range from 1 to 47 wells per section. Well log information is especially sparse south of Island Lake, and unfortunately, this is an important area for this study.

2.4 Study Area Physiography and Climate

The City of Shelton is located in southeast Mason County in the southern Puget Sound region. The city is situated along Oakland Bay at the western end of Hammersley Inlet. U.S. Highway 101 passes through the western portion of the city, Washington Highway 3 intersects US 101 just south of the city and passes through the downtown area and the eastern portion of Shelton. Olympia is located approximately 20 miles to the southeast, and Bremerton lies approximately 30 miles to the northeast. A map showing the City's location in relation to Mason County and Washington State is provided in the appendix. The ground elevation in the study area ranges from sea level to approximately 300 feet.

The 12-square-mile study area is made up of the northernmost portion of the City of Shelton and the upland area surrounding Island Lake. The surface geology in the upland area is comprised of mostly recessional outwash, and in the lowland area around the City it is mostly alluvium deposits.

The climate of the Puget Sound Lowlands is mild with cool, dry summers and wet winters. The wet season is typically October through March. Average annual precipitation is approximately 60 inches with nearly all of it falling as rain.

2.5 Conceptual Model

In order to accurately reflect the variable conditions of the study area in a model, a conceptual model is first constructed. The primary effort used to construct the conceptual model of the Shelton area was summarized in Robinson Noble's 1999 report, in which the hydrogeologic units that make up the area (four aquifers and four non-aquifers/confining units) were defined. Figure 3 presents the conceptual model for the study drawn as a schematic cross section. Figure 4 presents the approximate boundaries of the estimated maximum aquifer recharge area and surface water drainage basin of Shelton Springs. The western half of the Shelton Springs basin boundary was drawn with less certainty than other areas and is shown as dashed on Figure 4.

2.6 Physical Definition of the Hydrogeologic System

The hydrogeology of the study area is described in layers; each layer represents a different hydrostratigraphic unit. The nomenclature used is shown on Table 1. Hydrostratigraphic units are groupings of sediments that exhibit similar hydrogeologic properties, but they may or may not conform with stratigraphic units. Typically, hydrostratigraphic units are used to describe the aquifers and confining units.

The hydrostratigraphic units for the two shallowest units used herein generally conform with established stratigraphic units. The deeper hydrostratigraphic units do not conform to stratigraphic units. Sediments have been divided into eight units: the Vashon Recessional Aquifer System, the Vashon till confining materials, Vashon Advance Aquifer System, Quaternary confining materials, Quaternary permeable interbeds, the Sea Level Aquifer System, Deep confining units, and the Deep Aquifer System. They are briefly described in Table 1.

Table 1: Descriptions of Hydrostratigraphic Units

Hydrostratigraphic Unit	Unit Description
Recessional Aquifer System	Includes Vashon recessional outwash and higher permeability ice-contact deposits perched above the Vashon till. Regionally discontinuous.
Vashon Till	Includes Vashon till and lower permeability ice-contact deposits. Locally forms basins that are filled with discontinuous deposits of recessional outwash. Is regionally discontinuous below the Recessional Aquifer System.
Vashon Advance Aquifer System	Includes Vashon advance outwash and high permeability deposits immediately below the Vashon till.
Quaternary Confining Materials	Includes low permeability sediments below the Advance Aquifer System.
Quaternary Permeable Interbeds	Includes high permeability sediments below the Advance Aquifer and separated from the Sea Level Aquifer System.
Sea Level Aquifer System	Includes older permeable deposits. Regionally extensive.
Deep Confining Materials	Includes all low permeability sediments below the Sea Level Aquifer System.
Deep Aquifer System	Includes permeable sediments within the deep confining materials.

The thickness and distribution of the units are based largely upon a cross-sectional analysis of the study area. For this study, two cross sections were constructed from geologic logs, A-A' and B-B' (Figures 5 and 6), respectively. The cross sections were located (see Figure 2) to transect the spring's recharge area and include the City of Shelton's major production wells. Each unit is described in more detail below.

2.6.1 Recessional Aquifer System

Based on the hydrogeologic evaluation of surface and subsurface information, the Recessional Aquifer System occurs within saturated portions of the highly permeable Vashon recessional outwash deposits. Numerous database wells are completed in this aquifer system. Out of the 195 wells in the database, 36 (18 percent) are believed to be completed in the Recessional Aquifer System. Most of these wells are domestic wells with relatively limited drawdown available and, thus, limited capacity. The Recessional Aquifer, where present, is unconfined and perched above the low permeability Vashon till. For much of the study area, the Vashon till appears to be rather continuous and regionally impedes flow between the recessional and advance outwashes, acting as a confining layer. The saturated thickness of the aquifer varies with the season, but appears to average at approximately 20 feet thick. The aquifer is perched at an elevation of approximately 200 feet MSL. The topography of the till surface forms separate groundwater basins within the Recessional Aquifer System. As previously described, one such basin contains the aquifer which supplies Shelton Springs. The discharge from this basin is apparently funneled through a low point in the till, forming Shelton Springs.

The potentiometric surface map for the Recessional Aquifer (Figure 7) is based upon available water level elevation data within the larger of the two possible recharge areas. Water level data used included the surface elevation of Island Lake, observation well water levels, and the elevation of Shelton Springs. Using this data, lines of equal water level elevation were drawn in a general pattern based on the shape of the northern basin boundary. Groundwater flow is generally from north

to south, although in the vicinity of the springs, it also flows towards the springs from the west-northwest and east-northeast.

The gradient of the Recessional Aquifer is approximately 20 feet per mile. Because of this rather steep gradient and the highly permeable nature of the recessional deposits, the travel time of ground water within the aquifer is likely rapid. Observations and flow measurements at Shelton Springs indicate that spring flow varies from 500 to 3,500 gallons per minute (or 1 to 8 cubic feet per second).

2.6.2 Vashon Till Confining Unit

The low permeability sediments of the Vashon till create a confining unit within the Shelton study area. The fine-grained materials of the till impede downward movement of ground water and limit surface water infiltration. Although this unit has a low permeability, leakage through it does occur, and permeable zones with sufficient water for some domestic use are often present. Where the till occurs above the local water table, small perched zones often develop. While regionally the till is discontinuous, it appears to be relatively continuous within the study area where the average thickness is approximately 30 feet.

2.6.3 Vashon Advance Outwash

Below the Vashon till are the Vashon advance outwash deposits. These deposits, which locally consist of mostly sands and lesser gravel, form a moderately productive aquifer system. Although this unit is not utilized by the City of Shelton or other major industries in the area, the Vashon advance deposits are a major source of ground water for numerous small business and domestic supply wells. Within the study area, more than half of the well logs on file with Ecology are for wells completed in this aquifer (or the permeable interbeds within the underlying confining unit). Locally, this unit has an average thickness of approximately 50 feet.

2.6.4 Quaternary Confining Materials

Below the Vashon advance outwash deposits is a moderate to thick sequence of fine grained, low permeable sediments. The average thickness of this unit is estimated to be approximately 100 feet within the study area. A number of localized zones of permeable material are present within this unit and numerous domestic wells are completed in these permeable interbeds. Regardless, this package of sediments comprises a fairly extensive confining unit both in and around the study area, and provides a major impediment to the vertical movement of water between the Vashon deposits and the underlying Sea Level Aquifer System.

2.6.5 Sea Level Aquifer System

A proportionately smaller number of data base wells are completed in the Sea Level Aquifer System than in the shallower units. Of the 195 wells in the data base, 25 (11%) are completed in the Sea Level Aquifer System. Regardless of the lower number of wells, this aquifer system is highly productive and most of the major production wells in the study area are completed in this zone.

The Sea Level Aquifer is composed of older sediments which are highly permeable. Transmissivity values for the City of Shelton's three production wells completed in this zone are approximately 100,000 to over 250,000 gallons per day per foot (gpd/ft). Aquifer thickness within the study area averages approximately 80 feet, and the aquifer is generally encountered between 80 and -50 feet MSL. This aquifer appears to be fairly extensive in the region.

The potentiometric surface map of the Sea Level Aquifer System (Figure 8) is based primarily on available water level elevation data from well logs and the overall topography of the study area. Using this data, lines of equal water level elevation were drawn in a general pattern based on the

shape of the land surface. Groundwater flow is generally from north to south in the western part of the study area with a trend to the southeast in the southeastern portion.

The apparent gradient of the Sea Level Aquifer is approximately 20 feet per mile in the northern portion of the study area, and it steepens to approximately 75 feet per mile to the south near Oakland Bay. Because of this rather steep gradient and the highly permeable nature of these deposits, the travel time of ground water within the aquifer is likely rapid.

2.6.6 Deep Confining Unit

Below the Sea Lever Aquifer is an older sequence of low permeable sediments collectively designated as the deep confining unit. This unit is approximately 250 feet thick within the study area. While isolated lenses of permeable, water-bearing material occur in this sequence, overall this unit impedes the vertical movement of water between the Sea Level and Deep Aquifer Systems.

2.6.7 Deep Aquifer System

A few of the deepest wells within the study area penetrate the Deep Aquifer System. This unit consists of approximately 200 feet of sediments with highly variable permeability. Based on pumping data from Well 1, the transmissivity of the aquifer in this region is estimated to be approximately 50,000 gpd/ft. This system is typically encountered between -300 and -500 feet MSL and, as with the Sea Level System, this aquifer is thought to be regionally extensive.

The potentiometric surface map of the Deep Aquifer System (Figure 9) is based on limited water level elevation data from well logs, the overall topography of the study area and surrounding region, and the general position of regional sinks such as Oakland Bay and Hood Canal. Based on the limited available data, it is estimated that the Deep Aquifer has a relatively uniform regional gradient with ground water flowing generally from northwest to southeast.

The apparent gradient of the Sea Level Aquifer is less than 10 feet per mile. As such, the travel time of ground water within the aquifer is likely slower than in the higher elevation systems.

3.0 WHPA Delineation

The primary purpose of this project is to calculate the six-month, one-, five-, and ten-year capture zones for the City's three active production wells. We also included delineations for Shelton Springs because the Springs remain in use as a backup source. Capture zones are a subset of the zone of contribution, also called a steady-state capture zone. The zone of contribution is simply the total area contributing groundwater flow to a well. Generally, the area extends upgradient from the point of withdrawal until the groundwater basin edge is reached. Capture zones, more specifically called time-of-travel related capture zones, are the area around a well that contributes flow during a specified period of time. Zones of contribution were not estimated for the city's production wells because the groundwater basin boundaries for the deeper aquifer systems are likely distant from the study area.

Travel time-related capture zones can be difficult to define because of the time consideration — the time necessary for a particle of water to move along flow paths must be determined. Assuming that particles of contamination move at the same velocity as water particles, travel time particle paths predict the rate at which contamination, entering the aquifer at a given distance from a well, will reach that well. However, it must be remembered that particles of contamination may move slower, at the same rate, or more quickly than water particles, depending on a number of factors including contamination type and aquifer composition. Consequently, actual capture zones for specific contaminants may be larger or smaller than the general zones delineated here.

Velocity, and therefore travel time, is a function of the gradient, the hydraulic conductivity (K), and the effective porosity of an aquifer. Because these three factors vary throughout each of the aquifer systems within the study area, the exact determination of travel times cannot be considered absolute. The size and shape of capture zones are also dependent on production or discharge rates. Production rates typically vary with time, adding another uncertainty factor into capture zone definitions.

3.1 Modeling

Several general methods exist for delineating capture zones. From generally least to generally most accurate, they are: the calculated fixed-radius method, analytical modeling, hydrogeologic mapping and analysis, analytic element modeling, and numerical modeling. Accuracy, however, is dependent on more than the delineation method; it is also dependent on data availability and methodology skill. Modeling was completed in the 1999 Wellhead Protection Plan and the well production rates have not varied since then, so we were able to use to re-use the models from 1999. The three styles of modeling are briefly discussed below.

Analytical modeling, which assumes a relatively homogenous aquifer condition, was used in defining capture zones in the Deep Aquifer System, where little is known about the heterogeneity of the aquifer. To account for a known non-uniform gradient and known changes in hydraulic conductivity in the Sea Level Aquifer, hydrogeologic mapping was combined with an analytical modeling approach to determine this aquifer's capture zones. For Shelton Springs and the associated Recessional Aquifer System, analytical modeling was insufficient for describing the complex hydrologic conditions, so numerical modeling had to be employed to define the capture zones for this system. Figures 10 and 11 show the hydraulic conductivities used to model the Recessional and the Sea Level Aquifers.

3.2 Travel Time-Related Capture Zones

3.2.1 Recessional Aquifer

The City of Shelton no longer uses the water from Shelton Springs; however, it is still ready for service as an emergency backup supply if needed. On average, the discharge at the springs is estimated to be approximately 2,700 gpm with an annual range of between 800 and 6,400 gpm. Aquifer conditions in the associated Recessional Aquifer are not heterogeneous and as such, a numerical modeling approach was used to simulate flow in this system.

The capture zones for the Recessional Aquifer were determined directly using MODPATH in the calibrated numerical model of the aquifer. Six-month, one-, five-, and ten-year particle traces were generated and the corresponding zones were determined by enclosing the appropriate interval traces. The six-month, one-, five-, and ten-year calculated capture zones for Shelton Springs are presented in Figure 12.

3.2.2 Sea Level Aquifer System

The City of Shelton currently has three active production wells located between Shelton and Island Lake. Well 1 was drilled in April 1948 and originally tested at 1,485 gallons per minute (gpm). Well 3, drilled in February 1993, was originally tested at 900 gpm. Well 4 was drilled in August 2005 and tested at 1,000 gpm.

All three of the city's production wells are completed within the Sea Level Aquifer System. Additionally, Well 1 is also perforated in the Deep Aquifer System and draws ground water from both zones. Modeling of the Sea Level Aquifer was, therefore, conducted with Wells 3 and 4 pumping

at capacity and Well 1 pumping at half capacity. Likewise, modeling of the Deep Aquifer System was conducted with Well 1 pumping at half capacity.

In order to address the uncertainty in the definition of K and account for any regional variability in its value in the Sea Level Aquifer models, model runs were made using both half and twice the defined K values. From these model runs, a suite of six-month particle traces for the half-defined K and twice-defined K scenarios were generated to define six-month capture zones respectively for the two extremes of modeled K conditions. These particle traces were then superimposed on the pumping-modified potentiometric map, and the delineation of capture zones were expanded to one-, five-, and ten-year zones by calculating tracks for the individual particles along the potentiometric surface. Results from the half- and twice-defined K cases were combined to designate a composite, probable limit of capture zone area for each time period. The six-month, one-, five-, and ten-year calculated capture zones resulting from this process for the Sea Level Aquifer are presented in Figure 13.

3.2.3 Deep Aquifer System

Because aquifer parameter data is extremely limited for the Deep Aquifer System, analytical modeling by itself was deemed appropriate for capture zone definition within the aquifer. As with the Sea Level Aquifer, the uncertainty in the definition and regional variability in K for the Deep Aquifer System was accounted for with model runs using both half and twice the defined K values. Six-month, one-, five-, and ten-year capture zones were defined for both of these model runs by the WinFlow software. Results were then combined as with the Sea Level System. The six month-, one-, five-, and ten-year calculated capture zones for the Deep Aquifer are presented in Figure 14.

3.2.4 Results

The capture zone modeling results indicate a northwesterly trending groundwater flow within all three of the City's aquifer systems. The close proximity of Wells 1, 3, and 4 and their common completion in the Sea Level Aquifer results in capture zones that coalesce into a single larger wellhead protection area. Well 1 has its own, separate wellhead protection area for the Deep Aquifer. Shelton Springs also has its own wellhead protection area for the Recessional Aquifer.

4.0 Contaminant Source Inventory

The inventory of potential contamination sources within the WHPA was performed according to the guidance document entitled Inventory of Potential Contaminant Sources in Washington's Wellhead Protection Areas (Heath 2010). This section summarizes the basic steps for conducting an inventory, including:

- Review and identification of potential and known contaminant sources
- Data management
- Prioritizing risks to the WHPA

A summary of common sources of groundwater contamination is presented in Table 2. These sources were considered when performing the contamination inventory for the City's WHPA.

Table 2 – Potential Contaminated Sources Listed by Type

Category I
Sources Designed to Discharge Substances
Subsurface Percolation (e.g. septic tanks and cesspools)
Injection Wells
- Hazardous waste
- Non-hazardous waste (e.g. brine disposal and drainage)
- Non-waste (e.g. enhanced recovery, artificial recharge solution mining, and *in situ* mining)

Land Application
- Wastewater (e.g. spray irrigation)
- Wastewater byproducts (e.g. sludge)
- Hazardous waster
- Non-hazardous waste

Category II
Sources Designed to Store, Treat, and/or Dispose of Substances; Discharge through Unplanned Release
Landfills
- Industrial hazardous waste
- Industrial non-hazardous waste
- Municipal sanitary

Open Dumps, Including Illegal Dumping (Waste)
Residential (or Local) Disposal (Waste)
Surface Impoundments
- Hazardous waste
- Non-hazardous waste

Waste Tailings
Waste Piles
- Hazardous waste
- Non-hazardous waste

Materials Stockpiles (Non-waste)
Graveyards
Animal Burial
Above-ground Storage Tanks
- Hazardous waste
- Non-hazardous waste
- Non-waste

Underground Storage Tanks
- Hazardous waste
- Non-hazardous waste
- Non-waste

Containers
- Hazardous waste
- Non-hazardous waste
- Non-waste

Open Burning Sites
Detonation Sites
Radioactive Disposal Sites

Category III
Sources Designed to Retain Substances during Transport or Transmission
Pipelines
- Hazardous waste
- Non-hazardous waste
- Non-waste

Materials Transport and Transfer Operations
- Hazardous waste
- Non-hazardous waste
- Non-waste

Category IV
Sources Discharging Substances as a Consequence of Other Planned Activities
Irrigation Practices (e.g. return flow)
Pesticide Applications
Fertilizer Applications
Animal Feeding Operations
De-Icing Salt Applications
Urban Runoff
Percolation of Atmospheric Pollutants
Mining and Mine Drainage
- Surface mine-related
- Underground mine-related

Category V
Sources Providing Conduit or Inducing Discharge through Altered Flow Patterns
Production Wells
- Oil (and gas) wells
- Geothermal and heat recovery wells
- Water supply wells

Other Wells (non-waste)
- Monitoring wells
- Exploration wells

Construction Excavation

Category VI
Naturally Occurring Sources whose Discharge is Created and/or Exacerbated by Human Activity
Ground Water - Surface Water Interactions
Natural Leaching
Saltwater Intrusion/Brackish Water
- Upconing (or intrusion of other poor-quality natural water)

4.1 Contaminant Source Inventory Methodology

Three main sources of potential hazard identification were used for the study. Environmental Data Resources, Inc. (EDR), a database research company, reviewed the federal and state environmental databases listed in Table 3 for any known or potential contaminant sites within a 1.85-mile radius of the center of the WHPA, the radial distance selected was sufficiently large to cover the entire calculated time-of-travel capture zones for all the aquifers. The EDR report is presented in the appendix. To evaluate the potential impact of land use on water quality, we reviewed the City's current zoning map. Finally, Robinson Noble completed a windshield survey of the capture zones to verify the listed site locations and identify sites that may not have been included in the database.

Table 3: Federal and State Environmental Databases searched by EDR

Database Acronym	Database Name	Database Source
NPL	National Priority List	U. S. Environmental Protection Agency (EPA)
De-listed NPL	NPL Deletions	EPA
RCRIS-TSD	Resource Conservation and Recovery Information System-Treatment, Storage, or Disposal Sites	EPA
CSCSL	Confirmed and Suspected Contaminated Sites List	Washington State Department of Ecology (Ecology)
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information	EPA
CERC-NFRAP	Comprehensive Environmental Response, Compensation, and Liability Information	EPA
CORRACTS	Corrective Action Report	EPA
SWF/LF	Solid Waste Facility Database	Ecology
LUST	Leaking Underground Storage Tank Database	Ecology
UST	Underground Storage Tank	Ecology
RAATS	RCRA Administrative Action Tracking System	EPA
RCRIS-SQG	Resource Conservation and Recovery Information System-Small Quantity Generators	EPA
RCRIS-LQG	Resource Conservation and Recovery Information System- Large Quantity Generators	EPA
HMIRS	Hazardous Material Information Reporting System	EPA
PADS	PCB Activity Database System	EPA
ERNS	Emergency Response Notification System	EPA
FINDS	Facility Index System	EPA/ National Technical Information Service (NTIS)
TRIS	Toxic Chemical Release Inventory System	EPA
NPL Lien	NPL Liens	EPA
TSCA	Toxic Substance Control Act	EPA
MLTS	Material Licensing Tracking System	EPA

MINES	Mines Master Index File	EPA
CONSENT	Superfund (CERCLIS) Consent Decrees	EPA
WA ICR	Washington Independent Cleanup Reports	Ecology
Coal Gas	Former Manufactured Gas (Coal Gas) Sites	EDR

4.2 Potential Contamination Ranking

The potential hazardous sites and land uses discovered through the zoning map examination, database search, and field survey were ranked as to the highest potential for contamination of the well sources. This process will better allow the City to concentrate its wellhead protection efforts on issues of the highest concern.

4.3 Methodology for Establishing Risk Priority

The methodology for prioritizing risks in the City's WHPA was partially based on the U.S. Environmental Protection Agency (EPA) Guidance document entitled Managing Ground Water Contamination Sources in Wellhead Protection Areas: a Priority Setting Approach (1991). The ranking effort was also based on the level of confidence in data and information that is currently available for known and potential contamination sites.

Each site was ranked according to four factors called decision levels. The decision levels are listed below in Table 4 (Level I represents the highest hazard risk criteria, Level IV is the lowest).

Table 4: Overall Risk Prioritization

Decision Level	Available Data and Information
I	Proximity of potential hazard to the WHPA
II	Type of contamination
III	Severity of contamination
IV	Straight-line distance from the wells to the potential hazard

Each of the known and potential hazards was first scored and then ranked using decision level one. Sites with equal level one rankings were then further scored and ranked using decision level two. If sites were still equal in priority, they were further sub-prioritized under decision level three, etc. Once sites were differentiated in priority, no further ranking was necessary. The criteria for scoring sites within each level are discussed below.

4.3.1 Decision Level I – Proximity to WHPA

For the first decision level, the sub-prioritization of contaminated sites was based on their location within the wellhead protection areas; the shorter the travel time, the higher the priority. Scores for each site and hazard category are summarized on Table 5.

Table 5: Decision Level I: Proximity to Source

Sub-Priority Score	Proximity to Source
1	6-month time-of-travel from the source, WHPA Zone 1
2	1-year time-of-travel from the source, WHPA Zone 2
3	5-year time-of-travel from the source, WHPA Zone 3
4	10-year time-of-travel from the source, WHPA Zone 4
5	Within Buffer, outside WHPA Zone 4

4.3.2 Decision Level II – Type of Contamination

For the second decision level, the sites were ranked based on the type of the contamination or potential contamination. Sites with known contamination, defined as those with documented releases of contaminants according to the environmental database survey results, were ranked higher than sites with potential contamination or land areas that are used in ways that could pose a risk to the groundwater. This category's scoring is summarized on Table 6.

Table 6: Decision Level II: Type of Contamination

Sub-Priority Score	Known or Suspected Contamination	Type of Contaminated Site	Notes
1	Known	Independent Cleanup Reports (ICR), Confirmed and Suspected Contaminated Sites (CSCSL), Leaking Underground Storage Tanks (LUST), Spills	Known, serious contamination; extent of contamination possibly unknown.
2	Known or Suspected	SWF/LF, TPCHD Closed Landfills, Voluntary Cleanup Program (VCP), Independent Cleanups	Contamination known or suspected to exist onsite; may be partially controlled.
3	Potential	EDR Hist Auto, EDR Hist Cleaner, Suburban-Unsewered, Petroleum Pipelines, Underground Storage Tanks (UST), SPILLS, Industrial Lands and Airports	Sites that have high potential for contamination.
4	Potential	Commercial land, Facility and Manifest Data (Haznet), Non-Generator (RCRA Nongen), Hazardous Waste Manifest Data (MANIFEST), Surface mining	Large amounts of potential contaminants stored or used at sites.
5	Potential	Neighborhood commercial land, Facility Identification system listing (ALLSITES), Facility Index System (FINDS)	Small amounts of potential contaminants which could possibly be released.
6	Potential	Rural land, Suburban-sewered, Golf Courses, Schools	Land with human development have a risk of leaks or spills of lower-level contaminates.

4.3.3 Decision Level III – Severity of Contamination

For the third contamination level, sites were ranked based on a score given by four criteria: the aquifer location, the quantity of contamination, the aquifer conductivity, and the location of the contamination. Sites within the WHPAs of the Recessional and Sea Level Aquifers scored more points than those within the deep aquifer due to the aquifer's vertical proximity to the contamination and their greater hydraulic conductivities. A large quantity of contaminant or potential contaminant is scored higher than a lower quantity of contaminant. A contaminant stored underground is scored higher than a contaminant stored at the surface. Sites scoring higher were given a higher priority.

4.3.4 Decision Level IV – Straight-line Distance from Wells

For potentially hazardous sites with similar characteristics based on prioritization decision levels one, two, and three, the straight-line distance from the site to the closest City well was used as a tie breaker. The sites closer to the wells were given a higher priority.

4.4 Land Use

Land zoning within the study area includes, (in order of prevalence): rural/open land, neighborhood residential, industrial, commercial, and medical/education (Figure 15). Since some of these zones share many features and types of uses, many of the potential contaminants will likewise be similar. The large majority will fall into one of the three categories listed below.

4.4.1 Undeveloped Areas

Much of the land within the WHPA is not zoned and remains undeveloped. Undeveloped areas in the WHPA (including rural land outside the city limits), designated open-space districts, and the planned development district are expected to have the lowest potential for contamination due to the nature of and low impact of activities occurring there.

4.4.2 Residential Land Use

The City of Shelton has several residential areas that are located within the WHPAs. Potential contaminant issues related to residential land use include: nitrate loading and potential contamination as a result of the disposal of household chemicals through septic systems, small livestock operations, fertilizer and pesticide applications, and petroleum hydrocarbons, specifically subsurface heating-oil tanks. The principal concern for unsewered residential areas is the impact of nitrogen. Properly maintained septic systems convert nitrogen to nitrates, which are then transported in the environment in the groundwater system. Livestock operations and other hobby farming can also add nitrates to the groundwater. Hobby farms and lawns and flowerbeds represent potential hazards because they typically receive applications of fertilizers, herbicides, and pesticides. The presence of multiple sources of pesticides can result in the potential for additive loading to the groundwater system resulting in a possible progressive decline in water quality.

4.4.3 Commercial and Industrial Land Use

The majority of the commercial and light manufacturing land use is found on the outskirts of the City. The most likely potential contaminants related to either commercial or industrial uses include, but are not limited to, petroleum hydrocarbons and metals. These potential contaminants are generally due to the historical or current presence of heating oil and fuel in USTs. Additional potential contaminants could also be associated with painting contractors, hydraulic-repair shops, auto-repair facilities, radiator repair, and metal fabricators.

Petroleum hydrocarbons are a serious concern for wellhead protection in commercial and industrial areas, as well as residential areas. There are numerous potential sources for petroleum hydrocarbons within the WHPA. These include gasoline stations, industrial and commercial operations

that fuel and maintain equipment and vehicles, home/commercial heating-oil tanks, and bulk transport of such fuels. Petroleum hydrocarbons are typically stored in USTs in volumes ranging from several hundred gallons (residential use) to up to tens of thousands of gallons per tank (gasoline service stations). Large spills involving petroleum hydrocarbons are a greater risk than small spills (leaks, etc.).

Groundwater contamination from metals is a potential threat at commercial and industrial sites that handle or use materials with significant metallic constituents (plating operations, paints, waste oil, etc.) and historical pesticide use areas (historical pesticides were typically metal-based compounds).

Of additional concern are those portions of the WHPA that are not sewered; and thus use septic systems for waste disposal. Septic systems are considered a potential hazard because they deliver bacteria, nitrate-rich water, and other contaminants (if disposed of improperly into a drain or toilet) directly into the subsurface. This is a particular concern in unsewered industrial and commercial areas where there is the potential for the use (and improper disposal) of numerous hazardous chemicals.

4.5 Identified Contaminant Sources

In all of the federal and state databases reviewed by EDR, our field survey, and our supplementary research, 76 sites within the WHPP study area (Table 7) were identified as either potential hazards (24 of the 76) or sites where actual contamination has occurred (52 of the 76). The 76 sites are described in the table below, ranked from highest to lowest risk to the groundwater resource. Locations of the site-specific hazards are plotted on Figure 16, using the relative ranks as the site identification number. Non site-specific hazards, such as land use, were not specifically mapped.

Table 7: Identified Contaminated Sites, Sorted by Rank

Hazard Ranking	EDR #	Database	Name	Address
1			Natural Gas Pipe line	
2			Gravel Pit 2	
3			Neighborhood Commercial	
4			Suburban residential - Sewered	
5			Olympic College Shelton	937 Alpine Way
6			Olympic Middle School	800 E K St
7			Open Space	
8			Commercial Land	
9	CCC		O'Reilly Auto Parts	301 E Wallace Kneeland Blvd
10			Oakland Junior High	3301 N Shelton Springs Rd
11			Urban Residential	
12	111	ICR	US West Soc	140 Bell Ln
13	19	LUST	Mason County Transportation Coop	3740 Shelton Springs Rd
14	35	LUST	Hiawatha Inc	681 E Johns Prairie Rd
15	53	VCP	Barnes Machine Inc	7902 E Johns Prairie Rd

16	12	SWF/LF	Wilson Recycling	2278 E Brockdale Rd
17	121	UST	L & R Diesel Service	211 Bell Ln
18	75	EDR Hist Auto	Gardens Shelton Chevron	106 E Wallace Kneeland Blvd
19	BBB		K & P Cleaners	301 E Wallace Kneeland Blvd #223
20	114	SPILLS	James Food Mart	301 E Wallace Kneeland Blvd
21	63	EDR Hist Auto	Transmissions Plus Auto-motive	31 E Vance Ct
22	126	SPILLS	Private Residence	E 250 Hiawatha Blvd
23	42	SPILLS	Private Residence	855 E Johns Prairie Rd
24			Suburban residential - un-sewered	
25	DDD		Strader Residence	13 E Cherry Park
26	67	SPILLS	Walmart Store 2121	100 E Wallace Kneeland Blvd
27			Industrial Land	
28	45	RCRA NonGen / NLR	BPA Right of Way Paint Dump	1892 E Johns Prairie Rd
29	7	HAZNET	Shelton High School	3737 N Shelton Springs Rd
30	6	ALLSITES	Shelton Springs Neighbor-hood	
31	177	FINDS	Mason General Hospital	901 Mountain View Dr
32	166	ALLSITES	Shelton Elementary	402 E K St
33	95	RGA LUST	AM/PM Gas Station	106 E Wallace Kneeland Blvd
34	174	CSCSL	Bonneville Power Admin Shelton Substation	2508 Olympic Highway N
35	100	SWF/LF	Bradys Nursery	920 E Johns Prairie Rd
36	124	SWF/LF	Mason County Garbage & Recycling	81 Wilbur Way
37	38	SWF/LF	Jim's Automotive, Inc	2911 E Brockdale Rd
38	15	HIST CDL	Private Residence	310 E Blevins Rd
39	107	SPILLS	Apex Collision Services Inc	1347 E Johns Prairie Rd
40	144	UST	Simpson Community Credit Union	2948 N Olympic Highway
41	88	SPILLS		Hiawatha Blvd & Adonai Ct
42	5	EDR Hist Auto	Lees & Sons Auto Service	71 E Boardwalk Rd
43	AAA		First Choice Automotive Services	1142 E Johns Prairie Rd, Shelton
44	205	SPILLS	Private Residence	1707 Northcliff Rd
45	222	SPILLS	Mason City PUD 3	237 Professional Way
46			Gravel Pit 3	

47	71	MANI-FEST	Repairs Plus	E 1022 Johns Prairie Rd
48	186	RCRA NonGen / NLR	Mason City PUD 3	116 E K St
49	101	FINDS	Whiskey Ridge Manufac-turing	21 Adonai Ct
50	109	FINDS	Cable Corporation	820 E Hiawatha Blvd
51	162	ALLSITES	Mason Co PUD 3 Mt View Substation	350 E L St
52	129	FINDS	Olympic Mountain Millwork	822 E Hiawatha Blvd
53			Rural Land	
54	27	ICR	Airport Grocery Deli & Gas	11900 Highway 101
55	44	UST	Shelton Flight Inc	Hwy 101 Sanderson Field
56	37	UST	Olympic Air Inc	11771 N Hwy 101
57	214	EDR Hist Auto	Jack Pot Gas Station	2210 Olympic Hwy N
58	211	EDR Hist Auto	B & N Enterprises	2235 Olympic Hwy N
59	207	UST	Hood Canal Communica-tions	2218 Olympic Hwy N
60	102	SPILLS	Private Residence	524 E Meyer Lake Dr
61	184	SPILLS	Mason County PUD #3	116 K St
62	155	FINDS	Oil Can Henry's Shelton	2919 Olympic Hwy N
63	159	SPILLS	Advanced Automotive Ser-vice	2921 Northview Circle
64	188	SPILLS	Les Schwab	2505 Olympic Hwy # 200
65	228	SPILLS	Private Residence	809 Terrace Blvd
66	229	SPILLS	PUD	801 Terrace Blvd
67	132	SPILLS	Burgermaster Shell Food Mart	3001 Olympic Hwy N
68			Gravel Pit 1	
69			Highway 101	
70	48	RCRA Non Gen / NLR	Olympic Fabrication LLC	410 W Enterprise Rd
71	62	FINDS	Shelton Water Reclamation Facility	10891 SR101
72	46	FINDS	Sanderson Field	400 W Enterprise Rd
73	43	FINDS	PUD #3 of Mason County	43 W Sanderson Way
74	50	FINDS	Green Crow Shelton Log Yard	12721 US Hwy 101
75	197	FINDS	Camp Grisdale	
76	200	FINDS	Shelton Veterinary Hospital	104 E J St

*__Bold__ Indicates the location of the site is mapped on Figure 16

4.6 Potential Groundwater Concerns

For wellhead protection planning, it is important to understand the potential sources and types of contamination to the WHPAs. However, potential pathways for contaminant migration are also important to understand because these contaminant pathways can increase the vulnerability of an aquifer by decreasing travel time from a source to a wellhead. The following section briefly summarizes the main mechanisms for transport of contaminants to the subsurface.

Discharge onto the Ground Surface: Direct discharge to the ground surface occurs when contaminants or waste materials are spilled or placed onto the ground. These materials percolate into the subsurface, potentially aided by the infiltration of precipitation. In cases where a sufficient volume of material is released, the contaminants eventually reach the water table and migrate downgradient in the aquifer.

Direct Discharge to the Subsurface: Discharge to the subsurface occurs from septic systems and dry wells. Discharge into the subsurface is a more direct mechanism for transport because contaminants are discharged closer to the water table and because subsurface discharge bypasses the upper layers of soil which may have the ability to absorb and disperse many types of contaminants.

Abandoned Wells: Old, improperly constructed, or improperly decommissioned wells can serve as direct conduits for contaminant transport into the aquifer. In such wells, transport can occur between the ground surface and aquifer zones because of breached or damaged casings, lack of seals, inadequately constructed seals, or the lack of a secure wellhead.

Stormwater Runoff: Precipitation falling onto the ground either induces infiltration into the subsurface or runs off as overland flow. The quality of the water which infiltrates or runs off is dependent on the type of land use and the presence or absence of contaminants on the ground surface. Stormwater infiltration issues are similar to those of discharge to the ground surface. Stormwater runoff is considered differently because it runs over the surface of the ground, picking up and dissolving potential contaminants, and may eventually discharge these contaminants to ground water via infiltration from ditches or ponds designed to enhance the infiltration of stormwater.

The potential concerns due to water infiltration or runoff are diverse and reflect the land use activities in the area of interest. Improved roadways, parking areas, and residential developments can contribute heavy metals and petroleum hydrocarbons which originate primarily from automobiles. Industrial and commercial areas can discharge the same constituents as automobiles in addition to a variety of organic pollutants commonly used as a part of typical business practices (e.g., solvents, degreasers, paints, and dry-cleaning fluid).

5.0 Management Strategies and Implementation Tasks

5.1 Introduction

The completion of wellhead protection planning provides no safeguards unless effective management strategies are implemented to prevent potential contamination of groundwater sources. The City of Shelton does not own or control all of the land within its WHPAs. Maximum effectiveness can be achieved in implementing the WHPP through a cooperative effort between the City, neighboring purveyors, and the state and local agencies which regulate potentially harmful activities within the WHPA. A key component to its management of the area will be the notification of the existence and extent of the management area to the proper agencies in Mason County, neighboring communities, and local residents.

5.2 Wellhead Protection Management Strategies

The following sections detail proposed strategies developed to protect the integrity of the City's water sources.

5.2.1 Long-Term Management and Cooperation

This WHP program is designed to be a continuing management activity to meet the City's future planning needs or to adapt to changes in the physical conditions of the aquifer system. As such, the management strategies and practices outlined within this study provide a general direction, but will periodically need to be refined to fit specific conditions. Additional adaptations may be needed to address future activities and regulations, or changes in current regulations that may affect the WHPA.

5.2.2 Establish a WHP Committee

The City currently maintains an Emergency Management Committee to address community response to various potential emergency situations. Wellhead protection issues and spill response planning could naturally fall to this committee. It is recommended that this committee be expanded to address the following wellhead protection planning efforts:

- Evaluate the implementation status of the WHP tasks
- Review federal, state, and local programs regarding the WHP
- Review changes in surface activities within the WHPA
- Meet WHP regulations and requirements

The group should strive to focus on promoting existing or future water quality and quantity resource protection programs for the WHPA.

5.2.3 Land Management Activities

The City should encourage owners or agencies responsible for large land parcels and developments to use and monitor best management practices (BMP) for control, reduction, and restriction of potential contaminants into the WHPA.

5.3 WHP Land Use Strategies

The City of Shelton has no authority to directly control land use for those areas of the WHPA that are outside the city limits. Therefore, the City must develop a cooperative relationship with those state and local agencies that administer land use programs. At the present time, the best strategy for the City is to seek special designations for the WHPA from pertinent agencies. The City should evaluate and seek different designations that may be most beneficial.

Possible Special Protection Area Designations

- A Special Protection Area designation under the state ground water quality standards (WAC-173-200)
- A Special Use Area by the Department of Agriculture
- An Environmentally Sensitive Area under various County-level programs

5.4 WHP Regulatory Strategies

This WHPP update is designed to use the existing statutory rules and regulations to protect ground water quality. The City, in coordination with state and local agencies having statutory authority in the area, should monitor regulated activities within the WHPA. The following regulatory strategies are recommended.

Well Drilling Inspections inside the WHPA: The City should encourage the delegation of well construction inspection authority be transferred from Ecology to either the City or County Health Department. Regardless of the responsible agency, the City should encourage more frequent well construction inspection than currently occurs.

Washington State Environmental Policy Act (SEPA)/Hydrogeologic Evaluations: The City should request the Mason County Department of Community Development to require hydrogeologic evaluations that specifically address impacts to ground water quality and quantity parameters for any development within the WHPA which requires SEPA action or seeks Determination of Non-Significance (DNS) designation. Additionally, the City should enter into a Memorandum of Understanding (MOU) with both agencies seeking City comment on the effects such development will have on the groundwater system. Designation of the area as a Special Protection Area will be the first step toward gaining such an agreement.

Septic Tanks: The City should request Mason County to require that the approved final septic system as-builts be recorded with property deeds. Additionally, the City should support the implementation of laws and regulations requiring proper inspection and maintenance of septic systems within the WHPA zones.

5.5 Planning Strategies

A substantial degree of future protection for the WHPA will be achieved through present-day planning and coordination. In order to accomplish the required level of future protection, the following strategies are recommended.

Sewers: The City, in coordination with the managers of any non-city-owned local sewer systems, should develop emergency plans to be implemented in the advent of sewage leaks or spills. The City could encourage the County to require all industrial and commercial facilities within the WHPA to connect to sanitary sewers, if such services are reasonably available.

Stormwater Management: The City should conduct or promote research on the impact of stormwater discharge and storm water infiltration on water quantity and quality. Additionally, the City, in coordination with the responsible agencies, should evaluate the adequacy of storm water facilities, including proper routing, retention, and detention. We do not recommend the permitting of new drywell infiltration facilities within delineated WHPAs. A balance must be found that allows optimum recharge of storm water to groundwater systems while adequately protecting the water quality of the aquifers.

Emergency Response for Transportation Corridors: The City should notify the appropriate emergency response organizations of the location of the WHPA and establish formal communication protocols with the first-response emergency units.

Petroleum Pipelines: The City should document the location and use of petroleum pipelines and to establish emergency response plans for pipeline failure. These efforts should be coordinated with the pipeline companies and the federal, state, and county agencies responsible for emergency, petroleum-product spill response.

Hazardous Material Transport: The City should investigate the feasibility of re-routing the transport of hazardous materials away from the WHPA six-month and one-year time of travel zones.

5.6 Data Management Strategies

One of the principal goals of the WHPP is the development of a data collection network and analysis plan capable of providing the City with advance warning of contamination to the City's water

supply. The following data management strategies seek to establish and maintain scientific data upon which future WHPP actions can be based.

Groundwater Monitoring Plan: The City should actively participate in the collection and analysis of regional and local groundwater information. The development of a proper groundwater monitoring plan will be crucial to the City's capability to protect their water sources. This can be accomplished in cooperation with the Regional Water Associations of Mason County; Mason County Public Health Department; the Washington State Department of Health, Department of Natural Resources (DNR), and Ecology; and other entities seeking to monitor the groundwater resources of the region.

Abandoned Well Inventory: The City should locate and inventory improperly decommissioned, abandoned, and unused wells. Owners of these wells could be notified of the potential liability such wells cause and be educated on the benefits of well decommissioning.

Herbicide and Pesticide Survey: The City could inventory and monitor major herbicide and pesticide use within the WHPA. This inventory may be used to guide future ground water monitoring and WHP-related education programs. In addition, the City could encourage county, state, and private land managers to use vegetation management practices that protect groundwater quality.

Underground Storage Tanks Inventory: The City could inventory and locate underground storage tanks. Besides those presently identified by the current hazard inventory, this inventory should include new tanks placed after the hazard inventory was finished and residential home heating oil USTs/and or other tanks that were not previously identified.

Drywell Monitoring: The City should encourage Mason County Surface Water Management to develop an evaluation and monitoring plan for existing drywells within the WHPA. As mentioned earlier, we recommend prohibiting the use of drywells as a means of stormwater control within WHPAs.

5.7 Education Strategies

Education of the public and industrial/commercial occupants of the WHPA concerning groundwater protection is a critical portion of the WHPP. Through proper education, the degree and potential for future contamination can be greatly reduced; therefore, the following recommendations are made.

If not already begun, the City should begin groundwater educational programs to educate the WHPA residents, particularly on groundwater quality issues. The WHPA could be targeted for distribution of literature regarding septic-tank maintenance, fuel-oil storage-tank maintenance and abandonment, residential use of herbicides and pesticides, and hazardous material use, disposal and storage. Mason County Public Health Department maintains a cooperative program to assist water purveyors in Mason County with their WHPPs. This includes educational materials that will support this process. Included in the appendix is an example from the EPA of an informational pamphlet to hand out or mail to water customers.

In addition to City-run programs, the City could participate in and support small-quantity waste disposal programs and actively work with state and local government in developing and creating public education programs concerning ground water.

6.0 Wellhead Protection Implementation Tasks

In order to accomplish the protection of the WHPA, it is recommended that the City adopt the WHP Implementation Tasks listed below. These tasks have been ordered in their recommended

priority of implementation. The City may institute all or a portion of these tasks, depending upon available funding, time, or other concerns.

Task 1: Expand the City's Emergency Management Committee to include WHP planning. This group will:

- Promote adoption of the WHPA into the Comprehensive Plans for Mason County
- Focus the applicable state and local programs to the area
- Review management strategies
- Incorporate new data
- Evaluate new requirements
- Oversee educational programs
- Evaluate new approaches to WHP

Task 2: Establish formal communication with first responders. This task is fully described in the Spill Response Section of the WHPP.

Task 3: The City should also supply notification of the existence of the WHPA to the Health and Planning/Land-Use departments of Mason County. The City should request that:

I. Mason County Health Department assist small water systems with wellhead protection by initiating a small system WHP Coordination Program, and
II. Mason County planning department consider the WHPA in their designations of critical areas regulations, susceptibility mapping, and development permitting.

The City should provide susceptibility data to each county to update their maps.

Task 4: Consider seeking designation of the WHPA as a special protection area. As mentioned previously, there are numerous special designations the City may wish to seek in order to protect the WHPA. The City should evaluate the protection offered by these designations and seek those most appropriate for the WHPA.

Task 5: It is recommended that the City seek to create awareness of the wellhead protection area by posting metal "WATER SUPPLY PROTECTION AREA" signs at the borders of the WHPA.

Task 6: Communicate the location of the WHPA, explain basic WHP concepts, and address specific WHP concerns to industrial/commercial site owners and local gravel mine owners.

Task 7: Increase public awareness of homeowners who are connected to the City's water system through notification letters to customers within the WHPA. This notification letter should be given to homeowners either at the time of service hookup or as part of property escrow.

The City should deliver a copy of the wellhead protection plan to the Mason County library system. This will allow interested residents to learn more about the wellhead protection program of the water system.

In addition, the City can inform local residents of the WHPA and the goal of protecting the water supply through a press release sent to The Shelton-Mason County Journal for publication in the local or "Your Town" sections of the paper.

Task 8: Encourage the enforcement of the requirement that engineering as-builts of new septic systems be recorded with property deeds. These as-builts should be drawn and submitted by septic tank designers who are registered professional designers licensed by Washington State. Support the implementation of state laws and regulations regarding septic system inspection and

maintenance programs. Participate in public education programs to notify public concerning the impact of septic systems on the WHPA. Promote and coordinate public education programs concerning proper septic tank maintenance and proper hazardous waste disposal.

Task 9: Review routine leak detection procedures for sewer lines. Request utilities use "leakproof" piping for new sewer construction and replace older lines. Develop emergency response procedures for sewer force main breaks within the 6-month and 1-year travel zone of the WHPA. At this time, there are not apparently such mains. However, the City should confirm the current lack of force mains and investigate the possibility of future construction.

Task 10: Document the location and use of petroleum pipelines and develop appropriate emergency procedures.

Task 11: Participate in a regional groundwater data development and management program. This will help assure that an adequate regional database is developed.

Task 12: Support Mason County in seeking delegation of well drilling inspection authority. This could provide advance notice of drilling to the City and allow more frequent inspection of wells drilled within the WHPA than currently occurs.

Task 13: Assure that the hydrogeologic impact of surface development is adequately evaluated during the SEPA process.

Task 14: Document the type and amount of herbicide and pesticide application. This activity should focus upon transportation corridors and recreation parcels. Work with the Washington State University (WSU) Cooperative Extension Office and the county to modify future groundwater monitoring and WHP-related education programs. Data collected should be used to guide which water quality analyses are to be performed as monitoring progresses. Data can also be used in the education of the public on the handling and disposal of hazardous materials.

Task 15: Annually review the Model Toxics Control Act (MTCA), RCRA notifiers, and LUST sites files within the WHPA. Monitor Ecology's progress in the cleanup of MTCA and LUST Sites within the WHPA. Encourage Ecology and county inspection of RCRA hazardous waste generator facilities.

Task 16: Review the annual Superfund Amendments and Re-authorization Act (SARA) Title III reports. This would be a function of the WHP Committee in order to document and inventory the chemicals used in the WHPA. This review could be used to guide groundwater monitoring and WHP-related education programs.

Task 17: Promote and coordinate the public education programs regarding household hazardous materials use, storage and disposal with each county local hazardous waste management program.

Task 18: The City should develop data on the number and size of exempt underground storage tanks within the 1-year WHPA. Promote and coordinate public education programs concerning underground tank hazards, leak-detection methods, and proper removal and closure procedures. These programs should target owners of exempt underground tanks.

Task 19: Seek to have Ecology prioritize the investigation of contaminated and potentially contaminated sites within the WHPA. This could assure that those areas with existing contamination within the WHPA and any subsequent contamination events are given highest priority in relation to the amount and type of contamination in clean-up activities and budgets.

Task 20: Encourage development and use of best management practices. This effort should focus upon large land units including large residential developments, schools, golf courses, parks, mining operations, and forest parcels.

Task 21: Request County, State, and private landowners to utilize vegetation management practices to protect water quality.

Task 22: Encourage thorough analysis of groundwater impacts for siting, operation and reclamation of mines. Seek to have the proper agencies require mine operators to install monitoring wells. These wells should be capable of monitoring for potential impacts from site operations for mines within and adjacent to the WHPA. Seek to have the owners document the use of hazardous materials in mining activities within and near the WHPA.

Task 23: The City should inventory decommissioned, abandoned or unused wells in the six-month, 1- and 5- year time-of-travel zones. The owners of these wells should be informed about proper well decommissioning procedures. Should the City have existing, unused wells within these zones, they should be considered for decommissioning if there is no future planned use.

Task 24: The City could seek to have appropriate agencies require sewer hook-up for all industrial-commercial facilities within the WHPA if sewer service is reasonably available.

Task 25: Investigate the need for re-routing transport of hazardous materials through the WHPA.

Task 26: Work with responsible parties to assess adequacy of stormwater systems. This task should evaluate the existing stormwater detention facilities, establish priority for stormwater upgrades, and seek maximum infiltration of storm water where possible. We do not recommend allowing the use of drywell infiltration facilities within WHPAs. An evaluation of local stormwater detention, retention, and routing priorities should likewise be considered. Promote research on the impacts of stormwater discharge from residential areas. Encourage the periodic monitoring of existing drywells. Review water quality data generated under general National Pollutant Discharge Elimination System (NPDES) Storm Water Permit.

7.0 Spill Response Plan

7.1 Introduction

The purpose of this section is to outline and evaluate spill response procedures and capabilities for the City's WHPA. To conduct this evaluation, major spill response organizations were identified. Local response organizations were contacted to determine their response capabilities, back-up assistance, and general understanding of wellhead protection issues.

Spill events vary in size and can involve the release of highly toxic or completely inert materials. Events can occur under conditions where the spill is easily contained or where clean up time is plentiful, or they can occur where surface water, waterways, or groundwater are under immediate threat. This range of possibilities has prompted a spill response (and emergency response) system which is nationwide in scope and can involve federal agencies, yet is designed to handle the more common, small-scale (yet potentially dangerous) spills. This assessment takes into account this range of possible spills and responses.

The ability of the City to affect the protocols and procedures of the national and state response systems is limited. However, the majority of spills are small and require local response, as a minimum. Therefore, for the purposes of this effort, focus is given to local response capabilities and to the needs associated with these local response systems.

7.2 Spill Response in the Wellhead Protection Areas

Hazardous spills could potentially affect the groundwater supply for much of the defined WHPA. Should such a spill occur, within the WHPA, a 911 call should be made immediately. The 911 operator will ask several questions concerning the location and nature of the spill and send either personnel trained in hazardous materials incidents from the nearest fire department or send directly for a full Hazardous Materials (HAZMAT) team from Mason County. In order to inform emergency responders of the sensitive nature of the area and allow them to evaluate what hazardous spill response measures are necessary, notification letters have been prepared for the City fire department, neighboring fire jurisdictions, the Mason County Sheriff, and the Washington State Patrol (copies of these letters and contact information are included in the appendix).

The State Patrol is the pre-designated Incident Command Agency for all incidents occurring on state highways. Without a pre-arranged agreement with the City for HAZMAT incidents, the State Patrol must contact an agency with jurisdiction and capability (such as a local fire district) to secure a HAZMAT team response. This situation represents a potential delay, and therefore, may increase the risk to the surface and groundwater quality. If the City is able to secure an agreement with nearby HAZMAT teams (either directly or through the City Fire Department), the response time may be lessened significantly.

The role of Ecology will be described in detail in the remainder of the section. This agency provides an important function in spill management and cleanup. They are not generally considered a "first response" agency, but because of their regional offices and their environmental protection responsibilities, they are often quickly on site, and can provide clean up or containment advice and services (though usually through contractors).

7.3 State and Regional Support for Local Spill Response Capability

Spill-response planning has been underway throughout Washington State and within the county for many years. As a result, there are many response plans in existence, each focusing on a specific geographical area or type of substance. In addition, organizations involved in the storage and transportation of hazardous materials have been required to develop contingency plans. Accordingly, this assessment of spill-response capability and recommendations for enhanced response is intended to be consistent with existing spill-response plans for the area and the state.

The foundation for systems and procedures outlined in this section are described in documents such as the "Statewide Master Oil and Hazardous Substance Spill Contingency Plan" (Ecology, 1991) and the "Washington State Comprehensive Emergency Management Plan" (Washington Military Department Emergency Management Division, 2019).

Ecology is continuing the development of the State Master Oil and Hazardous Substance Spill Contingency Plan. The next major phase in the effort is the production of a volume of the plan specifically focused on operational issues. This document, when completed, will provide spill responders and key agency staff with the information and procedural guidelines necessary to effectively respond to spills. These procedures will include such items as enforcement protocols and laboratory support procedures.

The following are the spill-response plans in effect in Washington State which cover inland (non-marine) areas such as wellhead protection areas and aquifer recharge areas:

- National Oil and Hazardous Substances Pollution and Contingency Plan (NCP) prepared by the EPA

- Oil and Hazardous Substance Pollution Contingency Plan for Federal Region 10 (RCP) - prepared by Region 10 of EPA
- Washington Statewide Master Oil and Hazardous Substance Spill Contingency Plan - prepared by Ecology
- Washington State Emergency Response Plan - prepared by the Department CTED.
- Local Emergency Response Plans - prepared by county governments

7.4 Spill Response Terminology

The term contingency plan should not be confused with the water-supply contingency plan developed in Section 8. Contingency planning for the purpose of this section should be construed to mean "spill response contingency" plans.

In the various contingency plans applicable to Washington State, there are repeated references to an "Incident Commander (IC)" and an "On-Scene (Site) Coordinator (OSC)." The IC is the person who is in command of an incident during its emergency phase and OSC is the person who is in charge of spill or release management and cleanup. While there is an IC in charge of the situation, the OSC takes direction from this person. After the emergency response is complete, the authority is transferred to the OSC for final cleanup.

7.5 Spill Response Organizations

Depending on the magnitude of the spill event, numerous organizations at all levels of government, the private sector, and some voluntary organizations, can have a role in spill response and cleanup. Each of the plans mentioned above describes the relationship and roles of these organizations in terms of the particular concern. Listed below are a few of the organizations which might be, depending on the size and nature of the release, involved in a spill response in a wellhead protection area or ground water recharge area.

The Ecology Spill Response Team consists of Washington State Department of Ecology regional office personnel. This team is responsible for determining the source, cause, and responsible party, as well as initiating appropriate enforcement action. Additional responsibilities include ensuring containment, cleanup, and disposal are carried out adequately. The team coordinates its actions with other state, federal, and local agencies.

The Local Response Team (LRT) consists of state and local government agencies, industry personnel, academic organizations, and other private interests that may assist the OSC in pollution response and planning. The composition and level of participation in the LRT is dependent upon the area involved, the hazard posed, and the type of assistance required. Normally, the LRT will consist of the state environmental response agency and clean-up contractors.

The Technical Assistance Team (TAT) is a contractor used by the EPA Region 10 office to provide technical oversight at spills and uncontrolled hazardous waste sites. Requests for the TAT are made via the EPA. Once on site, the TAT will report the situation to the EPA duty officer who then decides whether an EPA OSC needs to be on scene.

Initially, the resource damage assessment program was an Ecology-led effort designed to organize the state natural resource trustee agencies into an effective resource damage assessment taskforce. The state Natural Resource Damage Assessment team (NRDA) consists of representatives from Ecology, Health, CTED, the Department of Fish and Wildlife (DFW), the Parks and Recreation Commission, and the Department of Natural Resources (DNR). In the event of a major pollution

event which damages natural resources, this committee's mission is to organize personnel, materials, and equipment necessary to conduct reconnaissance evaluations and initiate detailed assessments of natural resource damages.

The Environmental Response Team (ERT), based in Edison, New Jersey, was established to advise the OSC and Regional Response Team (RRT) on environmental issues surrounding spill containment, cleanup, and damage assessment. ERT personnel have expertise in areas such as treatment technology, biology, chemistry, hydrology, geology, and engineering.

The RRT consists of representatives from selected federal and state agencies. The RRT is the regional body responsible for planning and preparedness before any spills occur and provides advice to the OSC following such incidents.

The National Response Team (NRT) consists of representatives from the various federal agencies (such as EPA, the U.S. Coast Guard, Fish and Wildlife Service, etc.). It serves as the national body for planning and preparedness actions prior to a spill and as an emergency advisory center when a spill occurs.

7.6 Roles and Responsibilities

Spill-response plans stress that for spill-response procedures to be effectively executed, each party must be fully aware of their specific roles and responsibilities. Moreover, there must be an understanding of the roles of other parties involved in response activities, as well as effective coordination, cooperation, and communication among responding agencies, organizations, and individuals. This section describes the specific roles and responsibilities of the key parties, including:

- Responsible party or spiller
- Federal and state agencies
- Local government
- Facility owners
- Contractors

The Responsible Party

The primary responsibility for assessing, responding to, and containing an oil spill or discharge falls upon the individual, agency, or company responsible for the spill incident. The responsible party (RP), whether there is an approved contingency plan or not, is responsible for containment and cleanup of the spill, disposal of contaminated debris, restoration of the environment, and payment of damages. State and federal law specifically require that the removal of a discharge of oil or hazardous substance should be immediate.

Environmental Protection Agency

The EPA has primary responsibility for spills that occur on land and on inland U.S. waters not under Coast Guard jurisdiction. As directed by the NCP, the EPA is pre-designated as OSC for spills occurring in these areas.

Department of Ecology

Ecology is the lead state agency for environmental pollution response within the State of Washington. As such, it has pre-designated the state OSC and the IC for many spills occurring in state jurisdiction. In the event of a spill occurring on a state highway, Ecology coordinates with the Washington State Patrol, which assumes responsibility as IC, and Ecology acts as the lead agency responsible for clean-up activities.

State Patrol

The State Patrol acts as the designated Incident Command agency for incidents on interstate and state highways, and other roads and jurisdictions as delegated.

CTED - Emergency Management Division

Washington State Emergency Management Division (EMD) is responsible for:

- Developing and maintaining a State Comprehensive Emergency Management Plan.
- Maintaining a 24-hour capability to receive notification of incidents and request for assistance and initial notification to local, state, and federal response agencies.
- Activating the State Emergency Operations Center (EOC) as needed to coordinate state resource identification and acquisition in support of Ecology response.
- Providing Public Information Officer (PIO) support to the Incident Command.
- Maintaining an updated list of NRDA team members submitted by participating agencies.
- Maintaining and updating a notification list of local, state, and federal agencies involved in emergency response.
- Coordinating the procurement of state resources for use by the OSC or as requested by local EMD or other designated local response agency or state response agencies.
- Participating in the NRDA team.

Department of Fish and Wildlife (DFW)

The DFW is a state agency with trustee responsibilities for wildlife, game fish, food fish, non-game fish, shellfish, and their associated habitats. The agency is also responsible for state facilities (hatcheries, properties, launching ramps, and related facilities) and assorted equipment. Of special concern are high-value habitats that may be used as nursery grounds for fish or wildlife. DFW is a participant on the NRDA team.

Department of Health (Health)

Health has the responsibility for beach closures for human health and safety purposes, public health concerns from contaminated food supply (e.g. shellfish), and general health-related matters for the safety of the public. In addition, Health is to render all appropriate laboratory support and services to the OSC. Health is a participant in the NRDA team.

Department of Transportation (DOT)

The DOT may provide traffic control, equipment, and personnel for non-hazardous clean-up activities on state and interstate highways. The DOT may provide and mobilize equipment necessary in a major spill-response incident.

Local Responders

Local emergency response organizations such as local police, county police or sheriff, and local fire districts have a key role to play in most spill situations as they are the "first responders" for the majority of spills. These local entities provide for immediate protection of health, property, and the environment. It is this group of responders who determine the need for additional assistance and mobilization of the additional resources mentioned in this section.

Local Emergency Planning and Emergency Management

Local governments have a duty to be prepared for all disaster emergencies. Each County's EMD is charged with establishing Local Emergency Planning Districts (LEPD) and Local Emergency Planning Committees (LEPC) to facilitate planning efforts.

LEPC's have the responsibility to create local emergency response plans. General requirements for local response plans are contained in Title III of the 1986 SARA. Generally, local agencies, particularly fire services and law enforcement agencies, can be activated to provide emergency response services when there is a threat to life and property. Emergency response services may include: fire and explosion controls, investigation, and documentation, perimeter control, evacuation, traffic controls, and initial containment or even removal of materials, depending on the nature of the incident.

7.7 Incident Management Response

General Emergency Services	911
Washington State Emergency Management Division	1-800-258-5990
Washington State Department of Ecology	1-360-407-6300
City of Shelton Police (non-emergency)	1-360-426-4441
City of Shelton Fire Department (non-emergency)	1-360-426-3348
Mason County Fire District 11 (non-emergency)	1-360-426-1822
Mason County Sheriff (non-emergency)	1-360-427-9670
Washington State Patrol	1-360-596-4000
Environmental Protection Agency Region 10-Seattle	1-206-553-1200
National Response Center	1-800-424-8802
Mason Country EMD (24 hours)	1-360-427-7535

In most spill-response situations, the initial call is to a local emergency response agency such as the local fire department or district, local police, or others. The use of a 911 system will activate the local response. These first responders provide the initial on-scene control and manage the scene under the Incident Command System described below. Figure 17 presents an organization chart for the spill response process.

State Incident Command System

The State of Washington's spill response is organized and managed under an Incident Command System (ICS). The ICS is a functional component of a larger program, the National Interagency Incident Management System (NIIMS), which was developed for the interagency management of large forest fires. The ICS, although less complex than the NIIMS, is designed to allow for the day-to-day management of response efforts and resources for all oil and hazardous substance spill responses, from the very small or routine efforts to the largest catastrophic spills involving multi-agency jurisdictions.

Specifically, the system will operate in the following scenarios:

- Single Jurisdiction/Single Agency
- Single Jurisdiction/Multi-Agency
- Multi-Jurisdiction/Multi-Agency

The ICS concept is built upon teamwork coordination and cooperation between all entities involved (or potentially involved) in a spill response. Teamwork is encouraged throughout all phases of incident management including the preparedness, mitigation, response, and recovery phases for spills of any type or size. Ecology has taken steps to ensure there is effective teamwork, coordination,

and participation in the ICS by appropriate state and local agencies in addition to the Coast Guard and the EPA.

Unified Command Structure

In Washington State, the ICS will operate using a Unified Command Structure involving representatives of the Ecology, federal government, industry, and in some circumstances local government. A Unified Command Structure is called for when the spill is multi-jurisdictional in nature, e.g., when public safety and welfare, as well as environmental damage, is imminent.

Under the Unified Command Structure, the three key OSCs -- federal, state, and industry -- will share decision-making authority in the command post and consult with each other regarding spill response and clean-up, management issues. Participation in the Unified Command Structure does not mean that agencies such as the EPA and Ecology, which have roles and responsibilities set by federal and state statute, are relinquishing or surrendering their authority. Emergency situations, however, may require some actions to be taken outside of the normal permitting process.

The Unified Command Structure is a consistent, systematic means of organizing a variety of agencies having jurisdictional responsibilities surrounding an incident, into one concerted effort. The concept offers uniform and traceable procedures that enable all emergency response agencies to perform their roles effectively, yet in unison. A Unified Command Structure is located as close to the site of the spill as practicable, without interfering in the actual spill response activities.

Organization and Staffing Principles of ICS

The ICS organization is functionally oriented around four major areas: command, planning, logistics, and administration. The flexibility to expand this organization as situations dictate is designed within the ICS, without the need to conduct major organizational changes or a cumbersome transition into a different operational system during a spill response. For example, in a minor incident a single person may serve as the OSC and perform all functions. In a major incident, the command may consist of a united command with federal and state representatives, the RP, the OSC, a staff, and a group of sections and functional units. Participants in the Unified Command/Command Post and the OSCs are normally pre-designated, any remaining sections or functions are assigned as needed.

It is important for those parties and agencies participating in ICS to understand that the key to its effective operation is the acknowledgment that the Incident Command is in charge of the entire operation, the OSC is in charge of spill cleanup during the incident, while the section chiefs and functional unit leaders are in charge of their units or sections. As a rule, sections should have a single individual in charge with the authority to make decisions and to give orders. Without this authority, the system will fail. Accordingly, it is a maxim of ICS that section chiefs should be selected based on their experience and qualifications, not rank or seniority within their relative agency or organization.

The staffing requirements of the ICS should be viewed as a dynamic activity, not one based upon maintaining a precisely defined level. Flexibility is a key element of ICS, allowing the command structure to be as large and sophisticated, or as small and compact, as the spill event requires. As long as common sense is used, the system can be modified to fit any incident. The size of the ICS will be determined by the IC.

7.8 Recommended Spill Response Improvements

Complete Mutual Aid Agreements

Mutual aid agreements between the Shelton Fire Department and Fire District 11 should be completed and routinely updated. The Fire Department should investigate agreements for direct HAZMAT response from Mason County. Response scenarios involving other potential first responders (such as the State Patrol, the Mason County Police, or others) should be reviewed to assure that the response protocols are clearly understood and the response system is as streamlined as possible.

Establish Responder Group

As part of the implementation of this plan, a spill-responder group (consisting of local fire, police, emergency management, water districts) should be established to discuss spill response in the WHPA. Efforts should be made to communicate the extent of capture zones to the first-responder organizations. This "forum" for discussion of WHP issues could take the form of a sub-group of the LEPC or could be developed independently.

Discuss Wellhead Precautions

Through a local "responders" group, discussion should focus not only on the locations of the capture zones, but also on specific protocols and procedures for response in the zones. For example, certain types of responses may be more protective than others, depending on the chemical, the location within the zones, and the tradeoffs affecting immediate public health and safety.

8.0 Alternative Resource Contingency Plan

8.1 Introduction

Contingency planning is needed to ensure that water users will have an adequate supply of potable water in the event of source contamination, natural disasters, or other emergencies. In recognition of this, the state WHP program requires alternative supply planning and emergency spill response planning in all WHP plans.

8.2 Water System Existing Sources

The City of Shelton Water System has a daily maximum consumption of up to 2.80 million gallons per day (MGD), although the average daily consumption is considerably less, approximately 1.37 MGD. The water system maintains three production wells and four storage reservoirs with a total capacity of 1,784,000 gallons. The City still has access to Shelton Springs in case of an emergency limiting production from their other wells.

8.3 Alternative Supply

The maximum and average daily consumption were calculated in the City's Water System Plan and are based on the historical observed rates of use. The City's storage capacity allows for two thirds of a day of reserve under projected maximum use conditions (2.80 MGD), assuming no wells are available to produce water, but this is an unlikely scenario. A more likely scenario would be the loss of Wells 3 and 4 due to contamination or a similar reason, which would leave the City with Well 1 as the only well source. The City could bring Shelton Springs back online, which is continually monitored for quality and draws its water from a different aquifer. The ability to use Shelton Springs would allow enough temporary production capacity to replace both Wells 3 and 4 if needed.

Should a well be permanently disabled, the City of Shelton will need to drill a new well. New well placement options will depend upon the nature of the disablement. For example, if the well is dis-

abled by a contaminant spill, the new well can be drilled upgradient of the spill. If the well is disabled due to mechanical failure, well replacement can be accomplished at the same well site. Should there be a water system shortage during this replacement process, the City would need to exercise one or both of its intertie agreements to the degree possible in order to make up the difference.

9.0 References

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FIGURES

Legend

- Well Location
- Shelton City Boundary
- Study Area

0’ 2000’

Well 4
Well 3
Well 1
Shelton Springs

ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1” = 2000’	Figure 1 Study Area Location Map City of Shelton: Wellhead Protection Plan

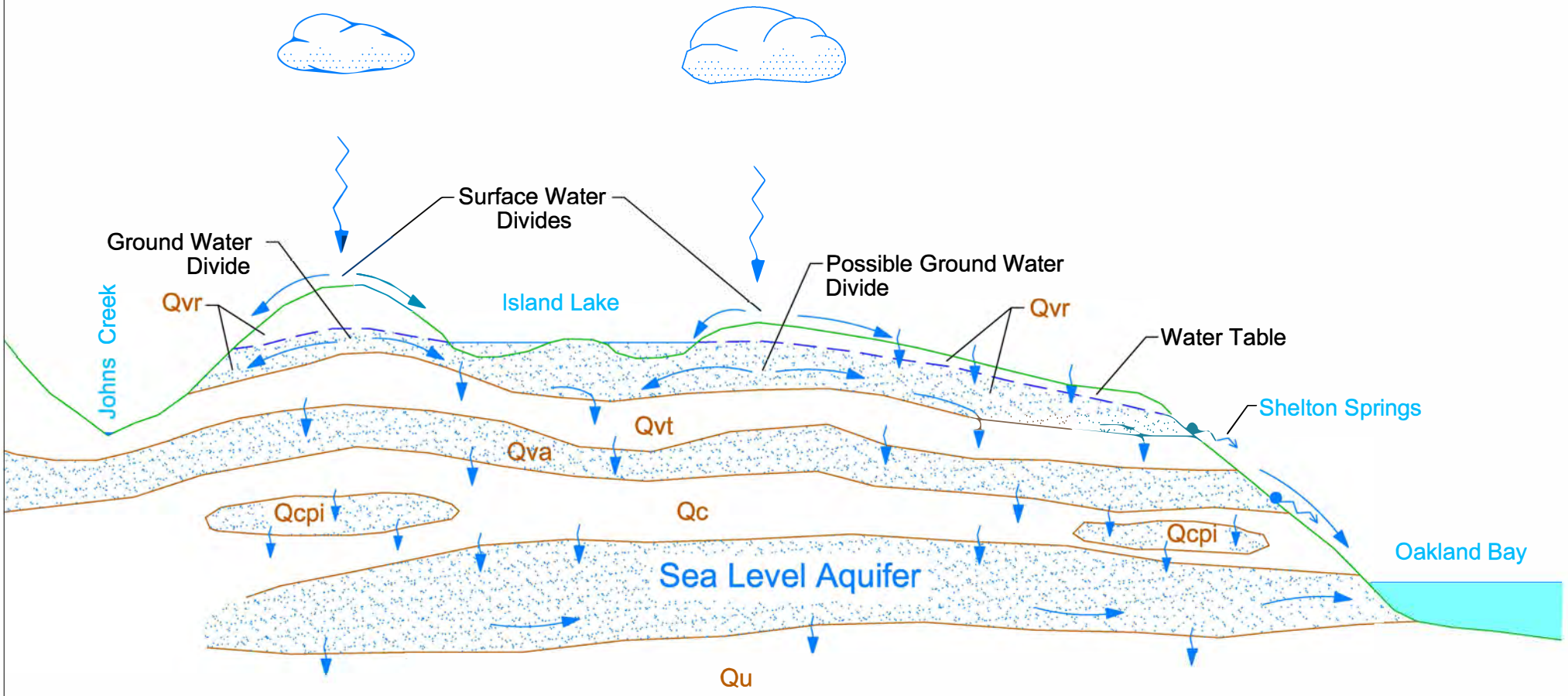
Legend

- Well Location
- Shelton City Boundary
- Study Area
- Well Completed in Recessional Aquifer Zone
- Well that Encounters Recessional Aquifer Zone
- Well with no Sign of Recessional Aquifer Zone
- A–A' Hydrogeologic Cross Section Line

0' 2000'

31C1 31A1 36H1 31F1 32E1 32E2-6 32F1 32M1,2 31R2,3 32M3,4 31R4 31R1 32N1 01D1 01E1 01H1 06F5 06E1-4 06F1-4 06E5 01J1 06M1 06B1-3 06B4,5 06A2 06A1 05D1 05C4 05C3 05C1,2 05B1 05B2,3 05A2,4 05A3 05A1 06G1-4 06B6 05E1,2 05E3 05G1 05G2 05H1 06H1,2 05F1 05F2-5 05L1,3-5 05J3 06L1-3 06J1-3 05M1 01N3 01N2 01N4 01N5 01N1 01P4 01P1-3 01R6-8 01R1-5 06N1 06N2 06K6 06K4,5 06K2,3 06K1 06Q1 06P1-5 06P6 05L7 05L6 05L2 05K1 05J1 05J2 06R1 05N3 05P1 05R1 05N1 05N2 05N4 07A1 07A2 07A3 07A4 07A5,6 07B1-2 08D1,2 08E1,2 07H1 07G1 07D1 07E1 12D3,4 12D1 12D2 12C1-3 12B1,3 12B2 07L2-5 07L1 Well 4 Well 3 08L1 08K1 08H1,2 08J1 08Q1,2 17A2 17A1 17G1 17L1,2 17K1 18F1 18G1 18K1,3,4 18K2 18J4 18J1,2 18J3 17L3 17L4 17R1 17R2 17N1 12Q1 07P1,2 Well 1 13H2,3 13H1 SITE AREA Shelton Springs A A' B B'

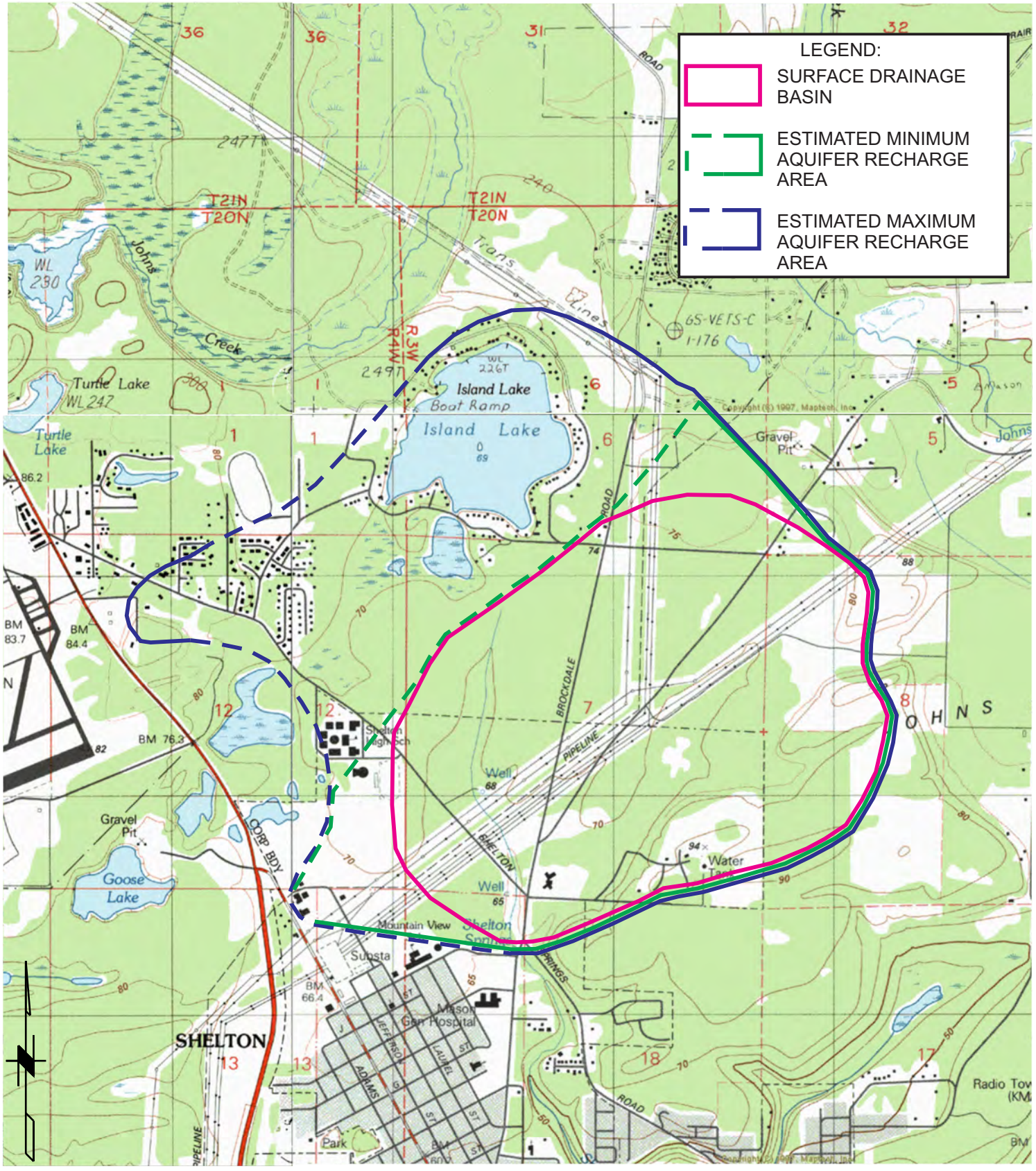
ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1" = 2000'	Figure 2 Well and Cross Section Location Map City of Shelton: Wellhead Protection Plan



NOTE:
SEE TABLE 1, IN TEXT, FOR THE DESCRIPTION OF THE HYDROSTRATIGRAPHIC UNITS.

DRAWING NOT TO SCALE

ROBINSON NOBLE	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03	Figure 3 Conceptual Model City of Shelton: Wellhead Protection Plan



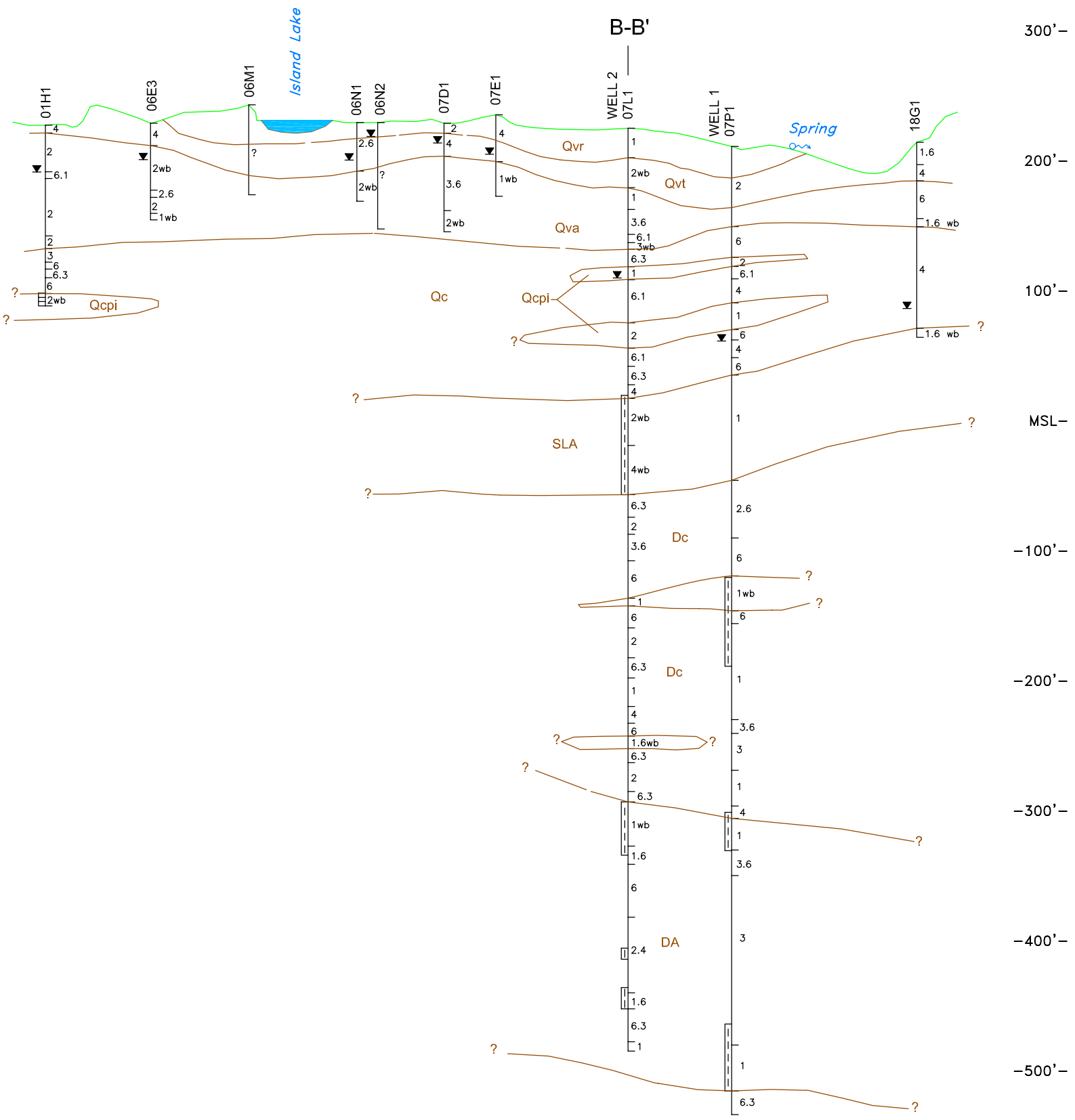
ROBINSON NOBLE	Note: Basemap Taken From USGS Shelton, Shelton Valley, Skokomish and Union Quadrangles	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1” = 2000’	Figure 4 Shelton Springs Recharge Area Map City of Shelton: Wellhead Protection Plan

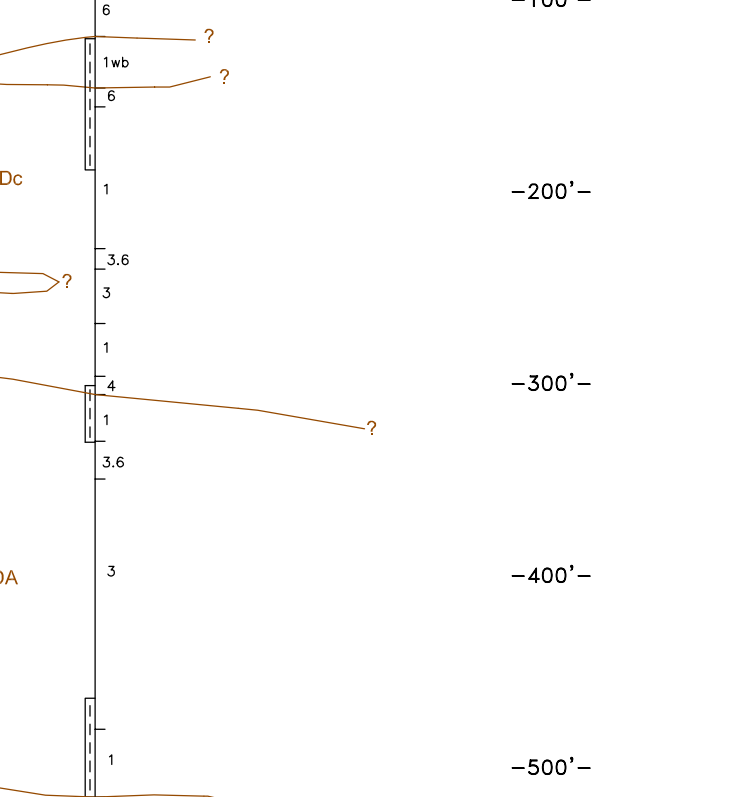
A
NORTH

A'
SOUTH

B-B'

300'–
200'–
100'–
MSL–
–100'–
–200'–
–300'–
–400'–
–500'–





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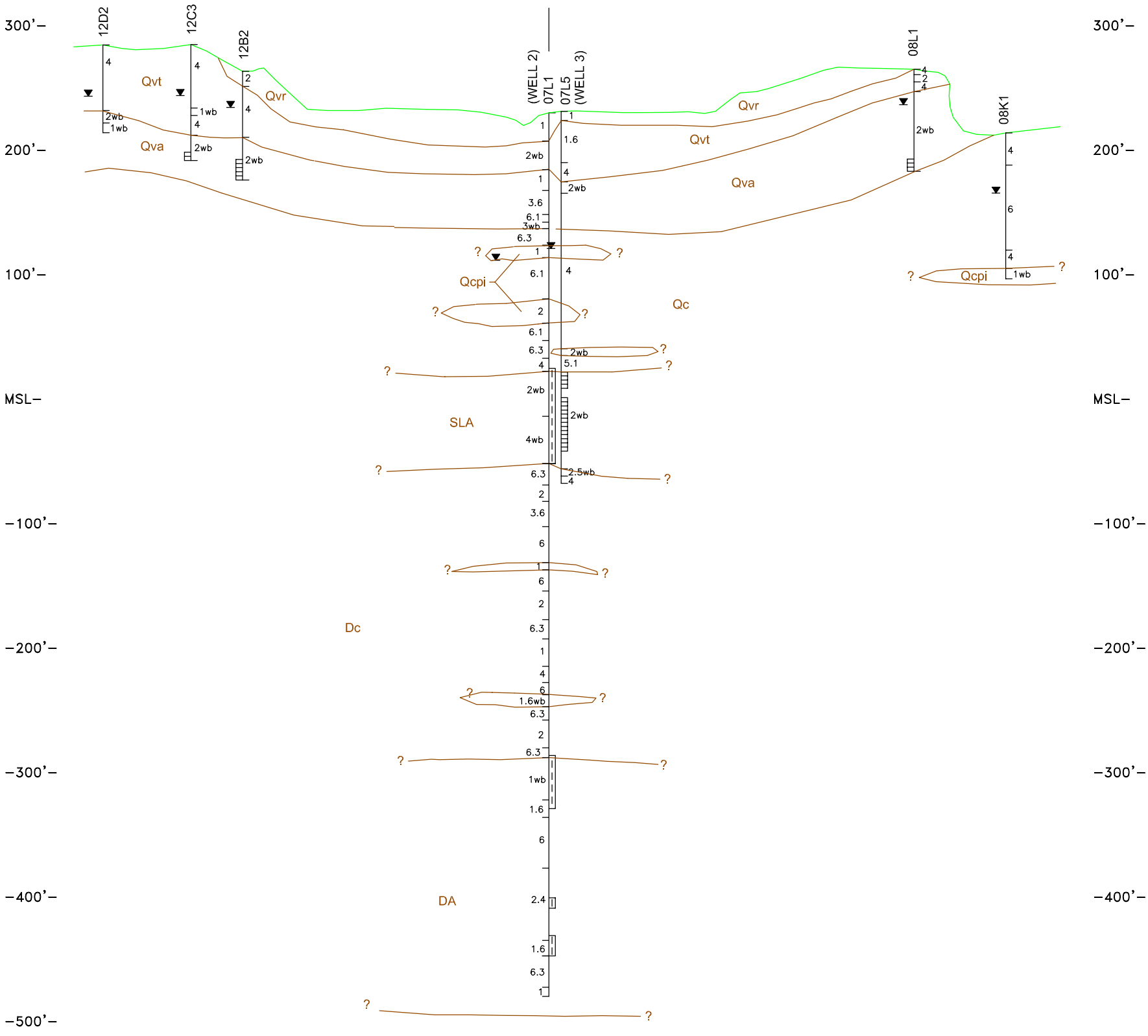
Mason County
T 20 N/R 03
Scale 1' = 2000'

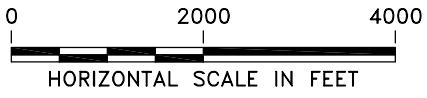
Figure 5
Hydrogeologic Cross Section A-A'
City of Shelton: Wellhead Protection Plan

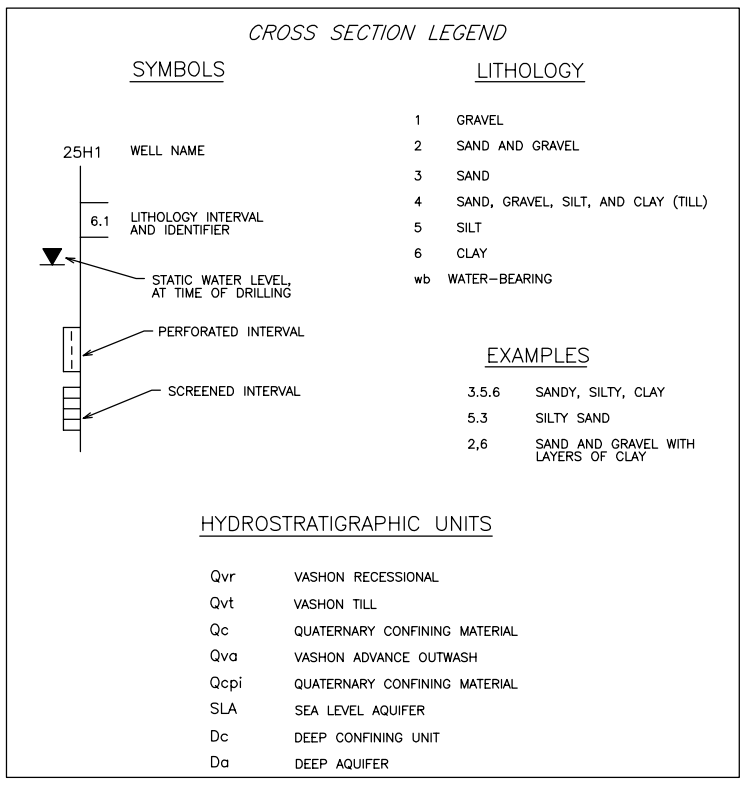
B
WEST

B'
EAST

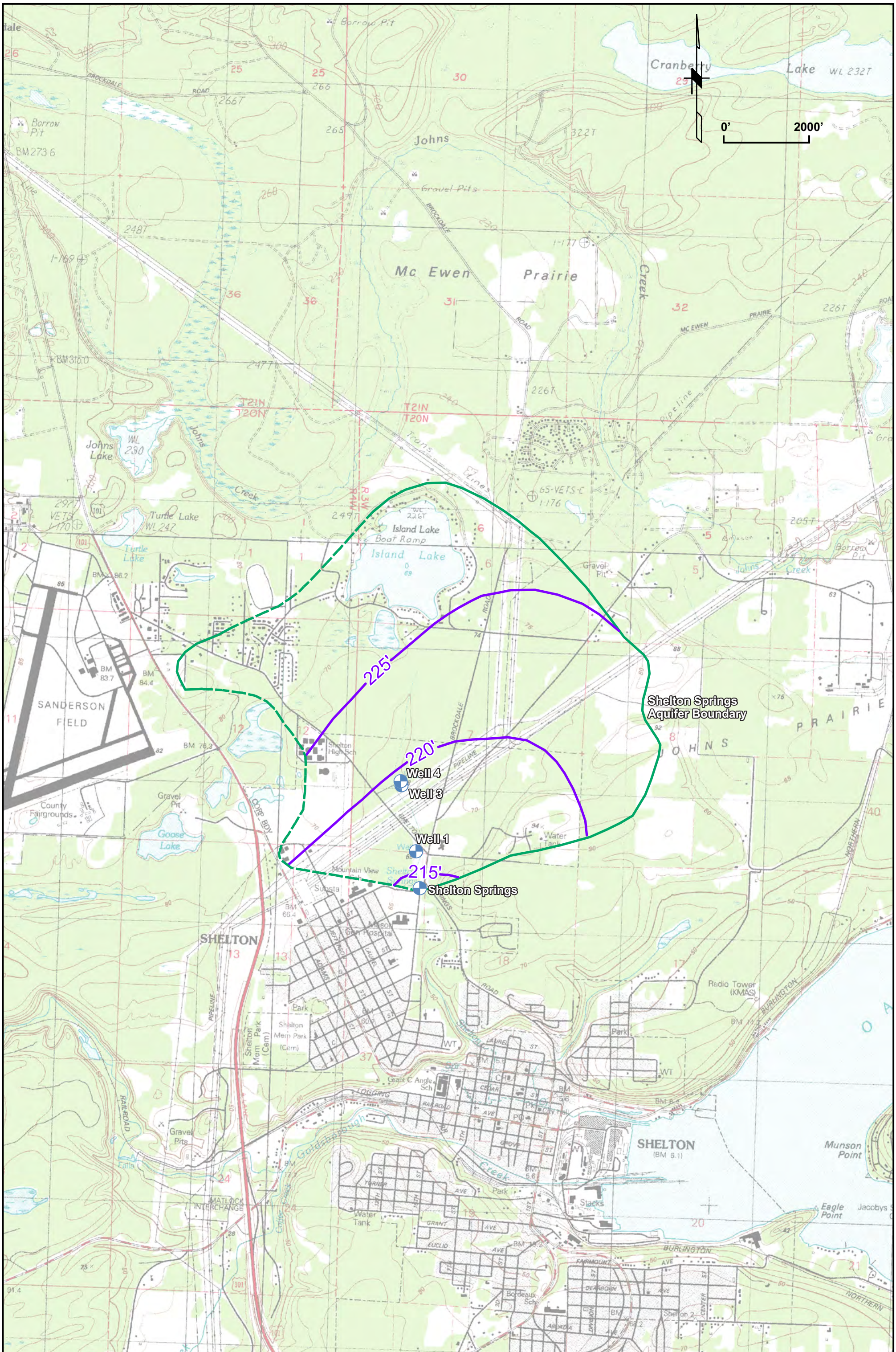
A-A'



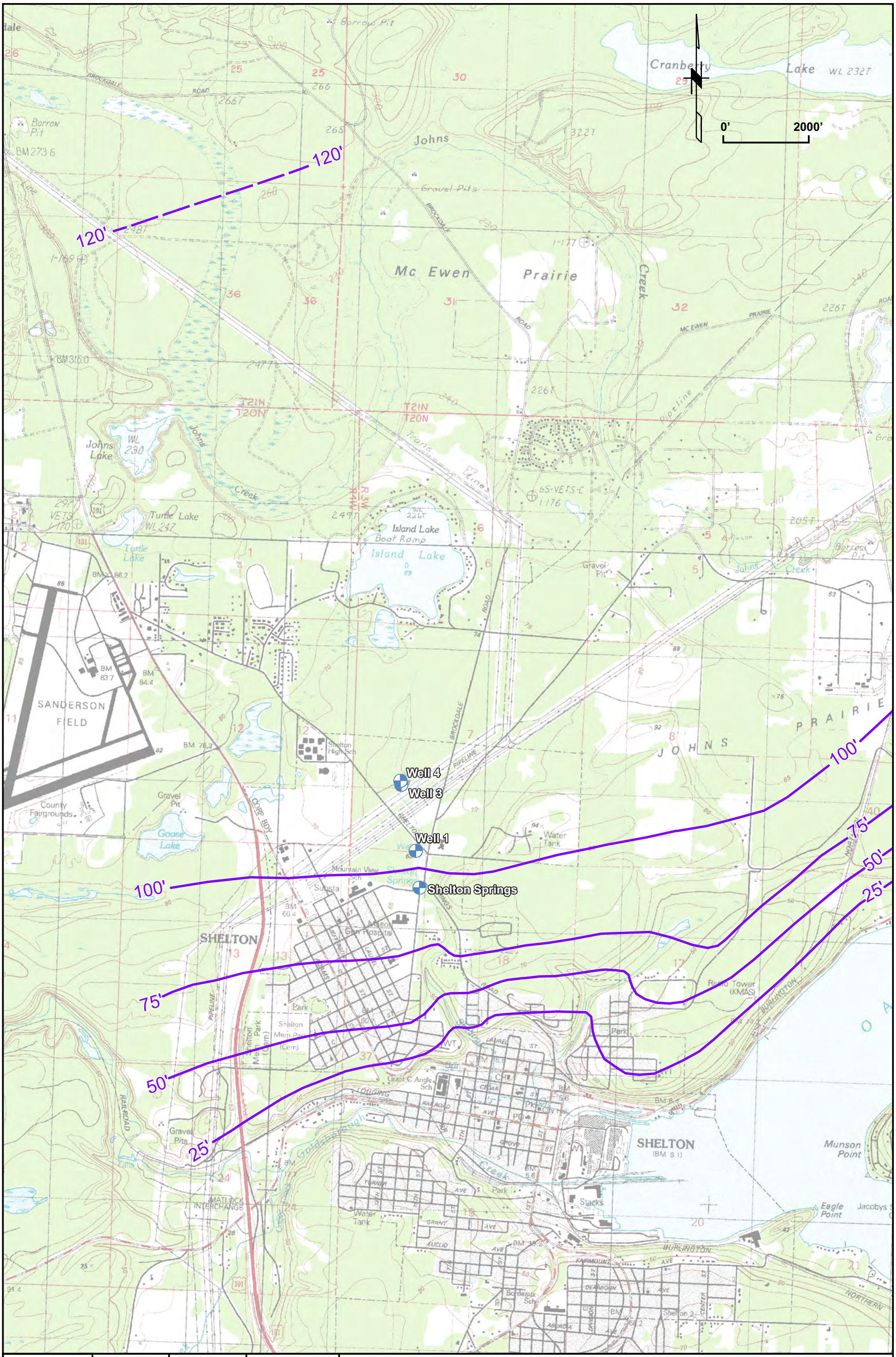




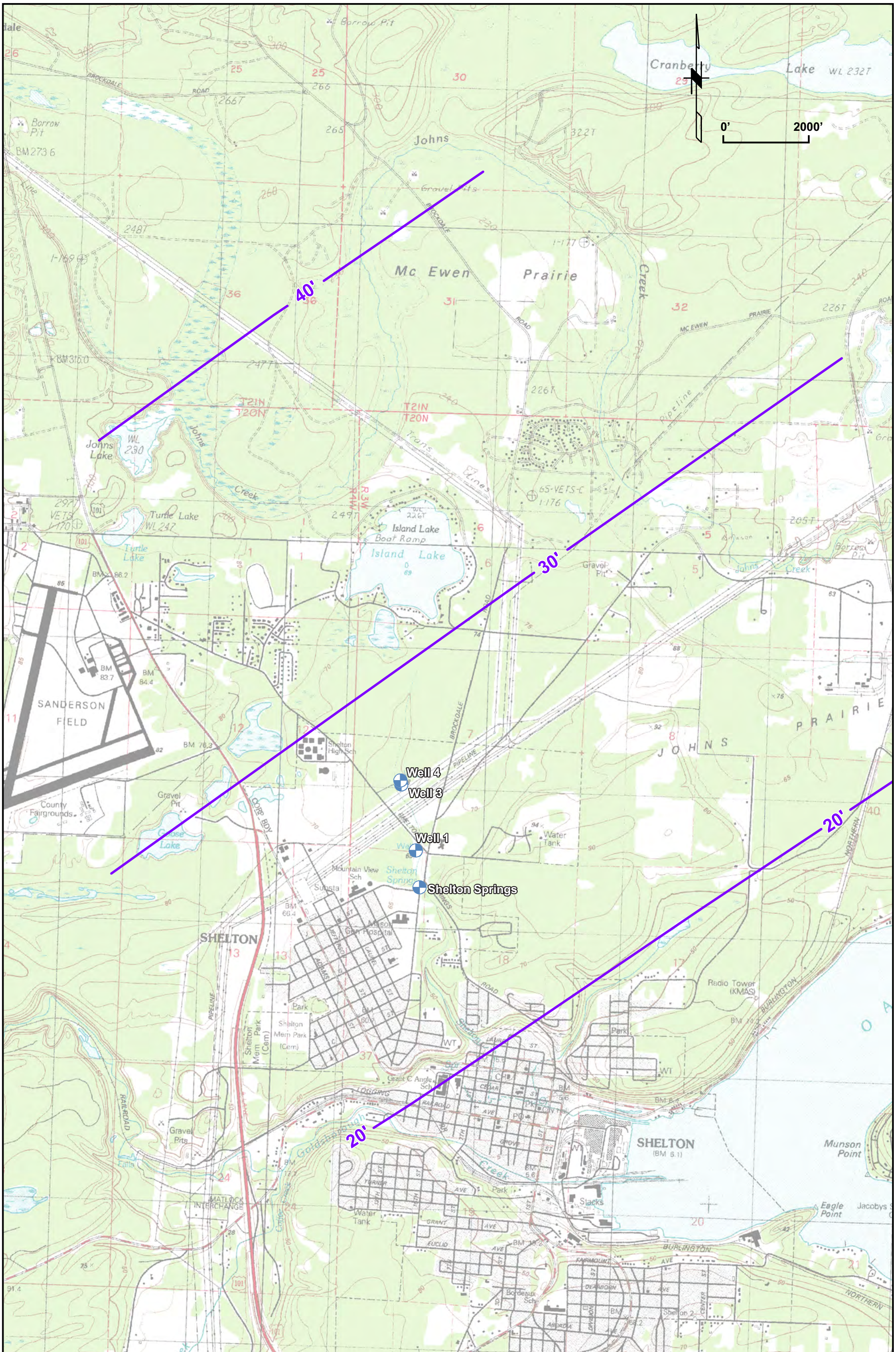
ROBINSON NOBLE	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1' = 2000'	Figure 6 Hydrogeologic Cross Section B-B' City of Shelton: Wellhead Protection Plan



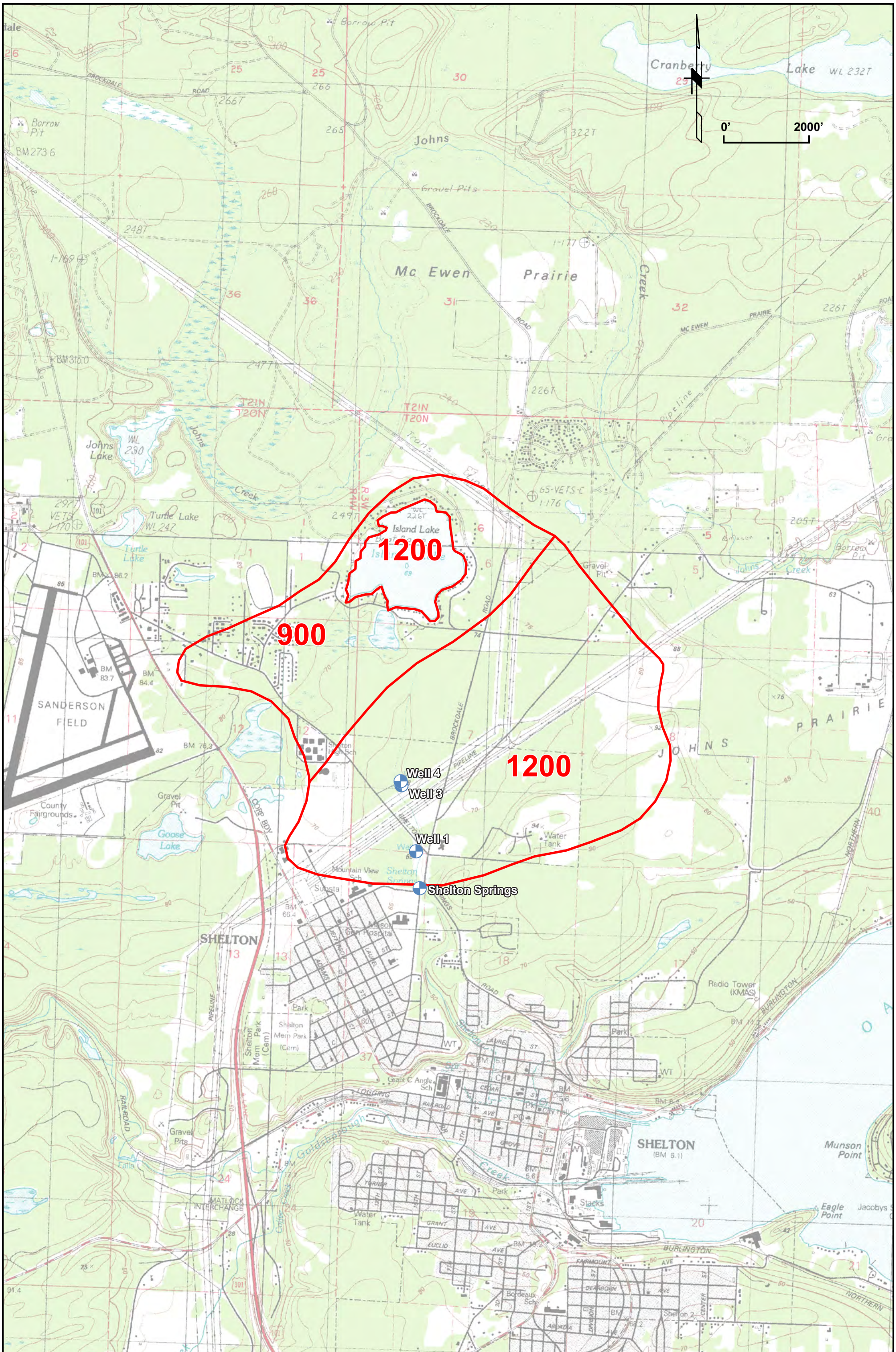
ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1” = 2000’	Figure 7 Generalized Potentiometric Surface for the Recessional Aquifer City of Shelton: Wellhead Protection Plan



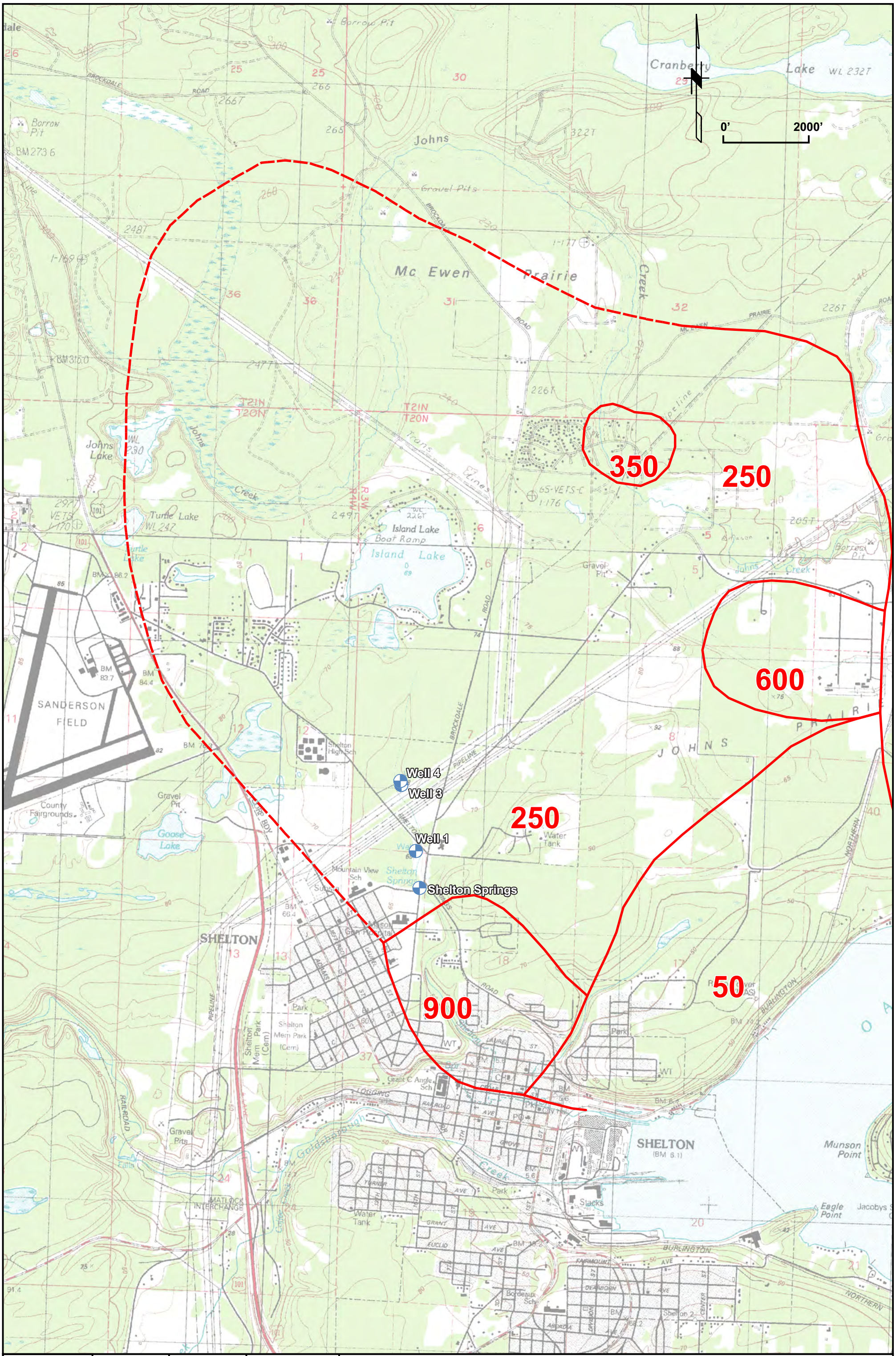
ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1” = 2000’	Figure 8 Generalized Potentiometric Surface for the Sea Level Aquifer City of Shelton: Wellhead Protection Plan



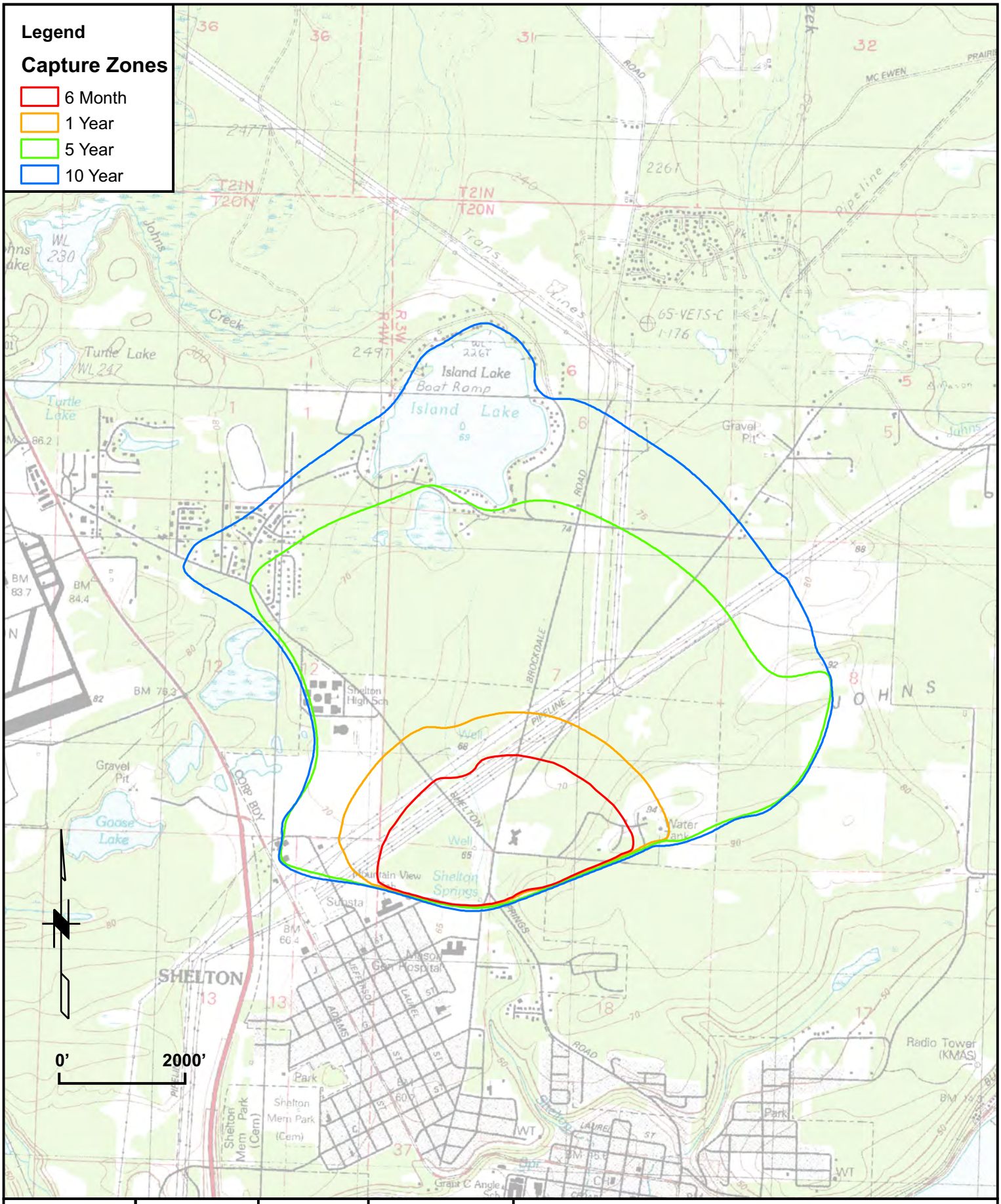
ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1" = 2000'	Figure 9 Generalized Potentiometric Surface for the Deep Aquifer City of Shelton: Wellhead Protection Plan



ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1” = 2000’	Figure 10 Hydraulic Conductivity Values Used for the Modeling of the Recessional Aquifer City of Shelton: Wellhead Protection Plan



ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1" = 2000'	Figure 11 Hydraulic Conductivity Values Used for the Modeling of the Sea Level Aquifer City of Shelton: Wellhead Protection Plan



ROBINSON NOBLE

Note: Basemap taken from USGS Shelton Quadrangle

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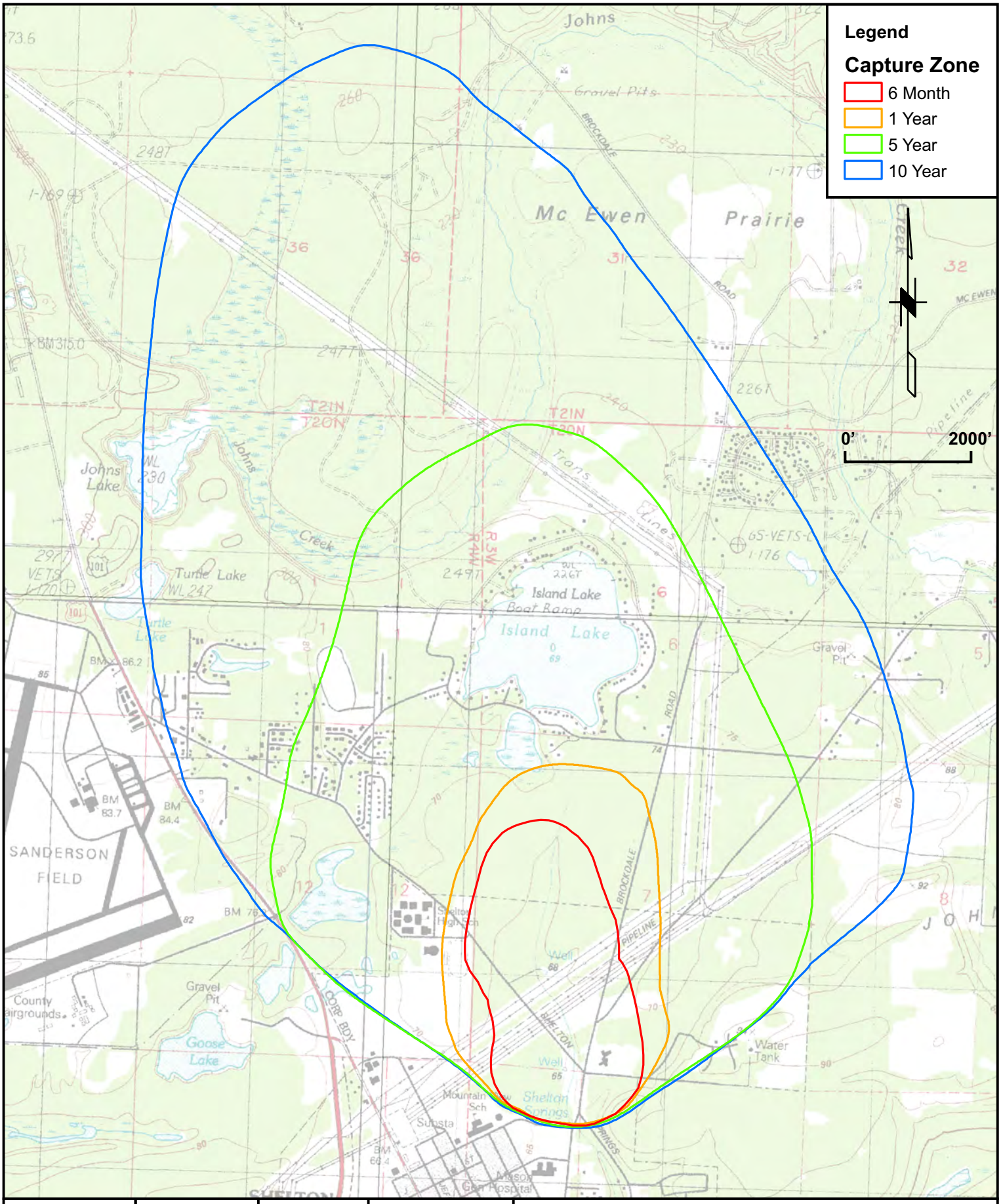
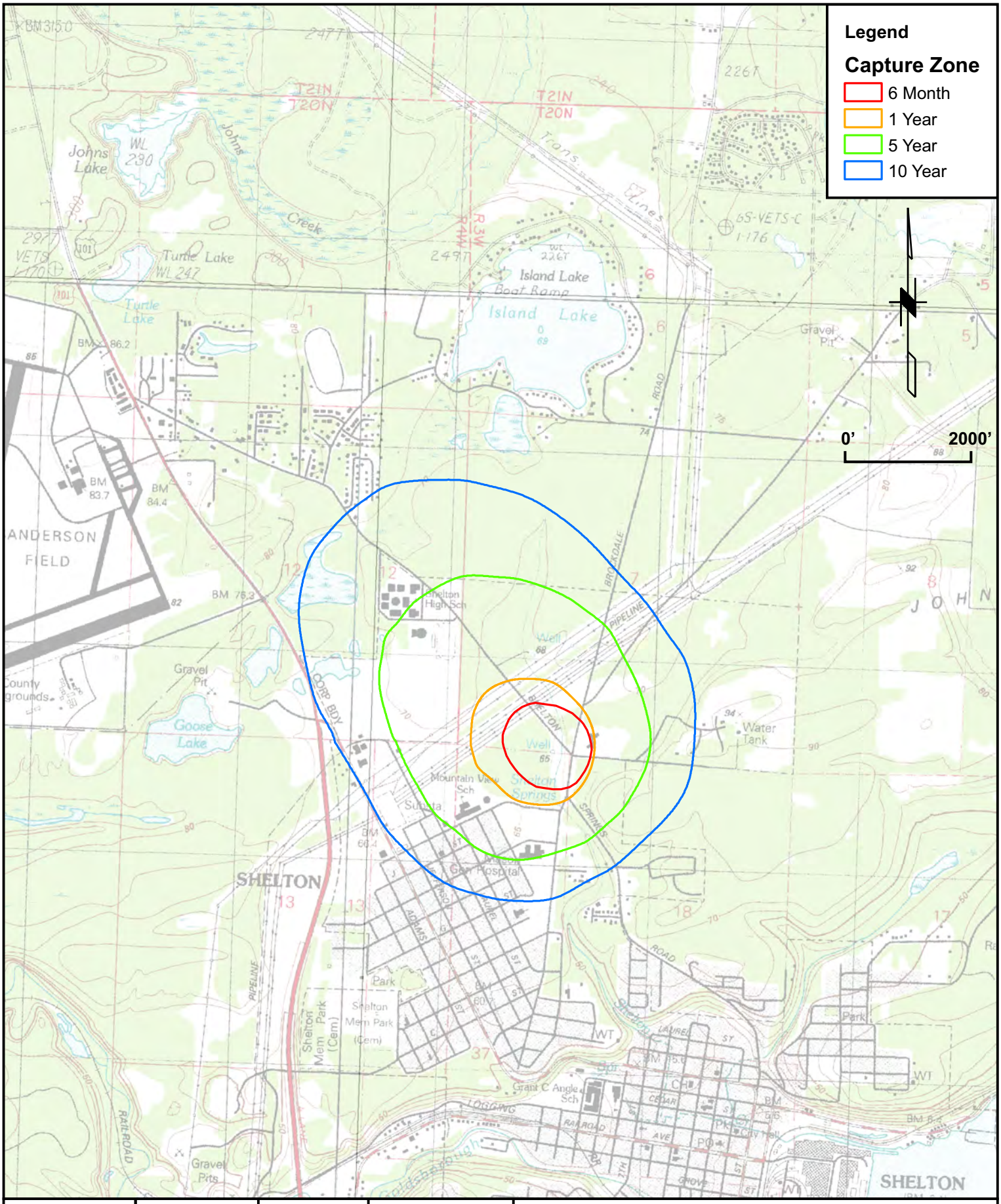
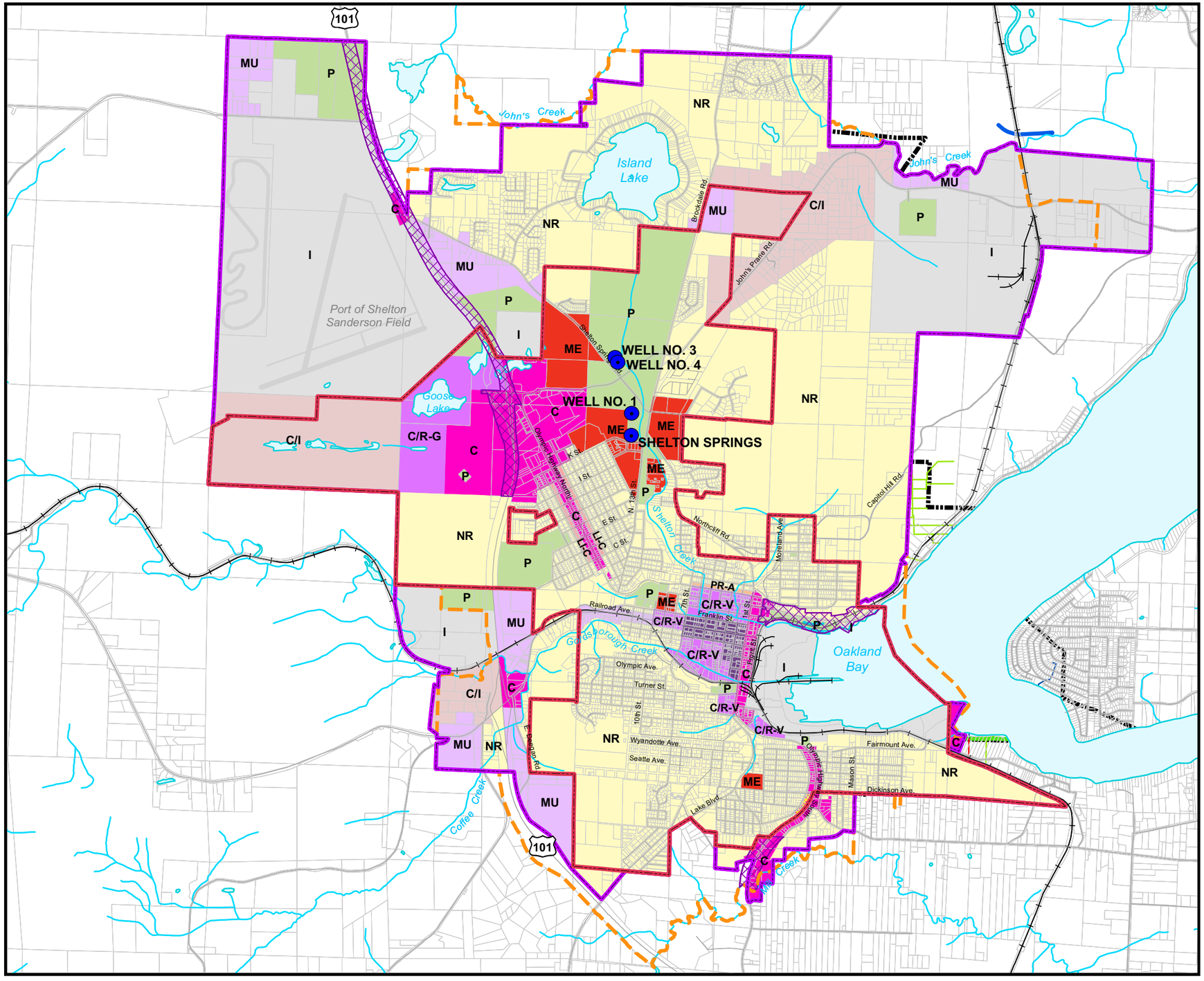
Figure 12
Recessional Aquifer Capture Zones
City of Shelton: Wellhead Protection



ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 E Scale 1" = 2000'	Figure 13 Sea Level Aquifer Capture Zones City of Shelton: Wellhead Protection



ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 E Scale 1" = 2000'	Figure 14 **Deep Aquifer Capture Zones** City of Shelton: Wellhead Protection



Future Land Use

- C — Commercial
- C — Commercial - Targeted for Potential Residential Rezone
- C/R-V — Commercial/Residential-Valley
- C/R-G — Commercial/Residential - Goose Lake
- LI-C — Low Intensity Commercial
- PR-A — Professional Office/Residential Mixed Usage
- DT — Downtown
- ME — Medical / Educational
- MU — Low Intensity Mixed Use
- NR — Neighborhood Residential
- C/I — Commercial/Industrial
- I — Industrial
- P — Public Lands/Open Space
- Existing Source

- Gateway Corridor Overlay
- Roads
- Railroads
- Streams
- Parcels
- City of Shelton Limits
- 2006 UGA
- UGA effective upon Mason County Approval

Projection: Washington State Plane
Zone: South Zone
Datum: NAD83
Units: Feet US

N

2,000 0 2,000 4,000

City of Shelton
Future Land Use

Source: Jones and Stokes, City of Shelton Comprehensive Plan Update (2007).

Figure 15
Land Use Map
City of Shelton: Wellhead Protection

Mason County
T 20 N/R 03 E

PM: MFP
November 2019
1840-003B

Note: Basemap
From City of Shelton
2010 Water
Comprehensive Plan

ROBINSON NOBLE

Legend

- Hazard Site

Capture Zone

- 6 Month
- 1 Year
- 5 Year
- 10 Year
- Buffer Zone

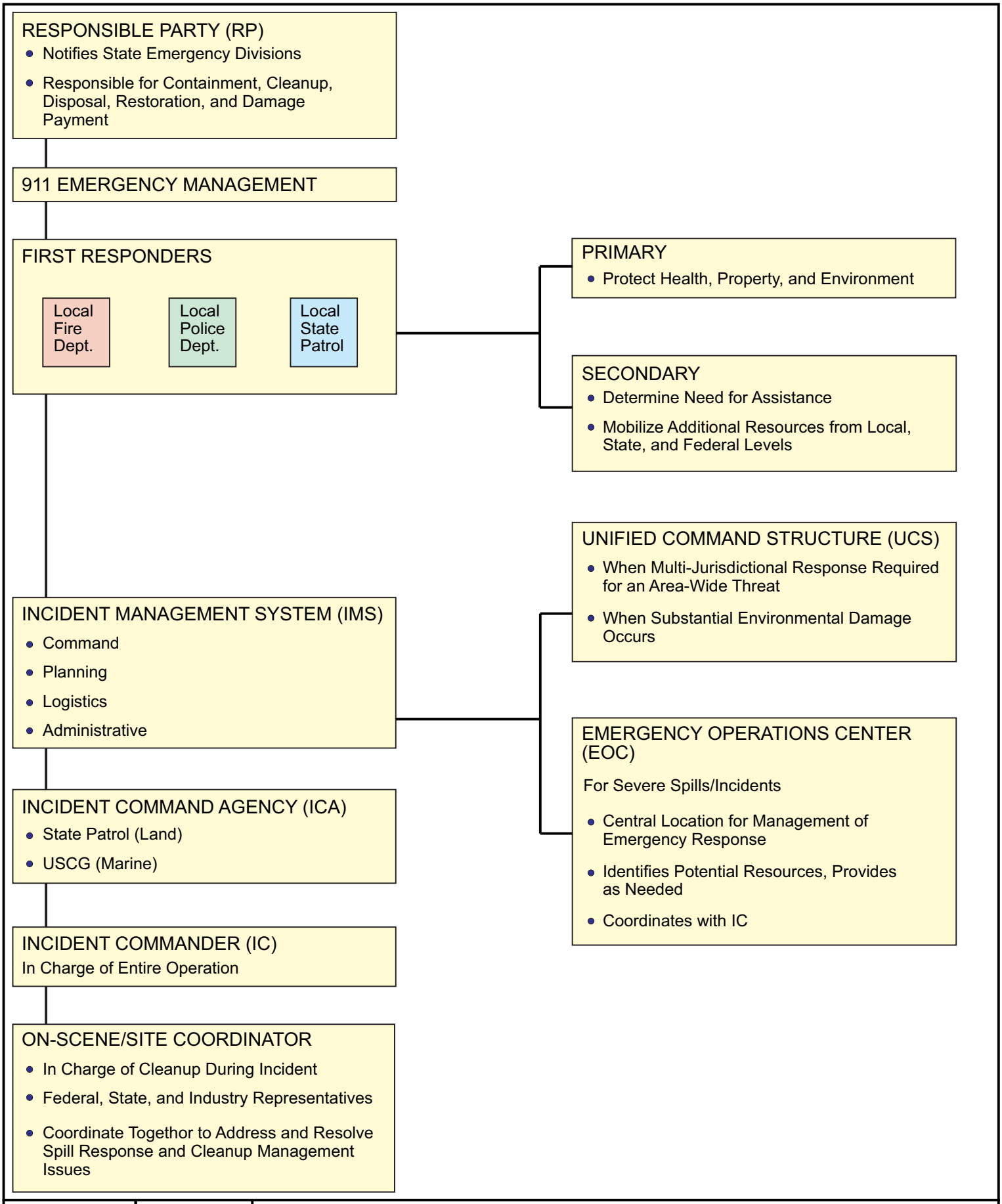
0’ 1400’

ROBINSON NOBLE	Note: Basemap taken from USGS Shelton Quadrangle	PM: MFP November 2019 1840-003B	Mason County T 20 N/R 03 Scale 1” = 1400’

Figure 16

Hazard Site Location Map

City of Shelton: Wellhead Protection Plan



ROBINSON NOBLE

PM: MFP
November 2019
1840-003B

Figure 17

General Local Response System

City of Shelton: Wellhead Protection Plan

APPENDIX

Reference #	Location	Owner Name	Elevation above MSL (ft) Well	WL	Depth to water (ft)	Depth drilled (ft)	Top Completion	Bottom Completion	Q (gpm)	dd (ft)	Hydraulic conductivity (K)	Calculated T	Reported T
01D1	20N/4W-1	Rae Lake Subdivision	280	231	49	130	119	130	30	2	164	25,625	
01E1	20N/4W-1	Dick Shrum	290	253	37	100	93	99	30				
01H1	20N/4W-1	David Bayley	230	191	39	140	131.8	140	32				
01J1	20N/4W-1	Gary Wilson	240	230	10	61	25	61	50				
01N1	20N/4W-1	Edna Johnson	280	235	45	60	58	60	15	21	44		
01N2	20N/4W-1	Edna Johnson	280	233	47	62	57	62	15	3	306		
01N3	20N/4W-1	Edna Johnson	280	236	44	66	61	66	30	2	701	26,154	
01N4	20N/4W-1	J. B. Miklethun	280	230	50	82.6	72	82	40	3	384	28,688	
01N5	20N/4W-1	Edna Rae Shively	280	246	34	117	45	117	100	3	168	59,029	
01P1	20N/4W-1	Dwight McKay	270	220	50	78.3	72	78	32	23	40	1,778	
01P2	20N/4W-1	West Realty	270	216	54	104	93	104	132	28	124	6,498	
01P3	20N/4W-1	Al Brotche	270	227	43	69	55	69	20	4	306		
01P4	20N/4W-1	Rae Lake Subdivision	270	221	49	130	119	130	30	2	312	25,625	
01R1	20N/4W-1	Lawrence Starr	230	198	32	53	44	53	15	2	460		
01R2	20N/4W-1	David C. Bayley	230	200	30	126	96	108	30				
01R3	20N/4W-1	David Bayley	230	200	30	110	102	109	100				
01R4	20N/4W-1	David C. Bayley	230	200	30	111	95	103	100				
01R5	20N/4W-1	David C. Bayley	230	200	30	113	106	111	150				
01R6	20N/4W-1	Dave Strom	230	210	20	66	62	66	10	15	41		
01R7	20N/4W-1	Don Links	230	225	5	33	28	33	20				
01R8	20N/4W-1	D & T Parker	230	194	36	57.5	35	57	20				
05A1	20N/3W-5	Rayonier, Inc, TW # 5	215	215		383	275	300	140	21	26	10,961	
05A2	20N/3W-5	Robert E. Barhite	215	200	15	40	36	40	20	28	33	976	
05A3	20N/3W-5	William White	210	112	98	140	135	140	25	18	85		
05A4	20N/3W-5	Robert E. Barhite	215	145	70	95	89	95	30	1	1,225	54,847	
05B1	20N/3W-5	Rick Simpson	220	202	18	70	60	70	20	32	10	764	
05B2	20N/3W-5	Maureen Dockery	220	182	38	89	83	89	30	18	102		
05B3	20N/3W-5	L.G. Shelton	220	210	10	48	42	48	30	18	102		
05C1	20N/3W-5	Dawn Butcher	220	125	95	141	132	141	25				
05C2	20N/3W-5	Robert Paulk	220	122	98	125	114	125	30				
05C3	20N/3W-5	Robert Ramsey	220	120	100	185	180	185	20	8	158		
05C4	20N/3W-5	Harry Floyd	220										
05D1	20N/3W-5	Robert Linn	210	110	100	139	130	139	30	5	368		
05E1	20N/3W-5	Brad Banner	210	155	55	100	90	100	30	20	92		
05E2	20N/3W-5	Jim Rutledge	210	134	76	140	113	137	30				
05E3	20N/3W-5	Larry A. Warren	215	197	18	30	16	30	30	1	1,506	56,180	
05F1	20N/3W-5	Rayonier, Inc, TW # 4	210	92	118	500	437	404	452				
05F2	20N/3W-5	Island West/ Kamin	210	149	61	94	91	94	30				
05F3	20N/3W-5	Island West/ Kamin	210	149	61	99	94	99	12				
05F4	20N/3W-5	Island West/ Kamin	210	191	19	58	50	58	30				
05F5	20N/3W-5	Island West/ Kamin	210	189	21	58	54	57.6	12				

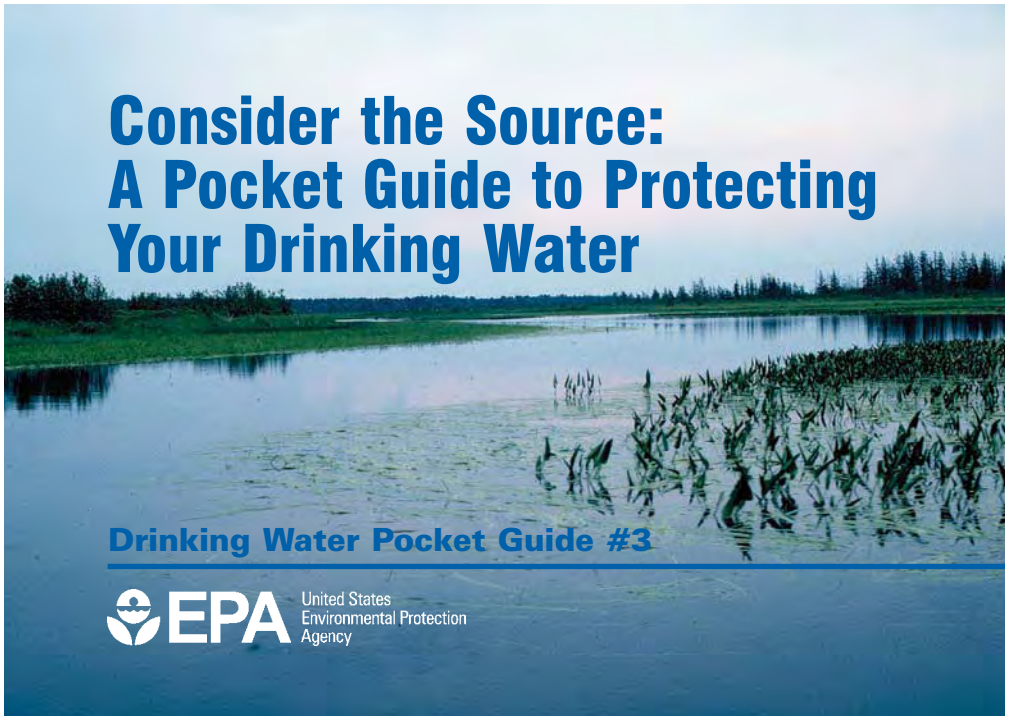
05G1	20N/3W-5	June Sims	210	165	45	88.5	78.5	88	32				
05G2	20N/3W-5	Bill Petty	200	150	50	130	120	130	40	1	2,451		
05H1	20N/3W-5	Kelly Neill	210	119	91	148	143	148	50				
05J1	20N/3W-5	O. E. Lee	190	120	70	102	100	102	5	11	17		
05J2	20N/3W-5	Terry A. Dihmer	197	122	75	105	100	105	30	1	1,115	41,610	
05J3	20N/3W-5	Rayonier, Inc	190	189	1	10							
05K1	20N/3W-5	Al Glenn	213	203	10	52	51	52	10	30	20		
05L1	20N/3W-5	Don Johnson, Constr. In	210	181	29	81	72.7	80	100				
05L2	20N/3W-5	S.R. Steehler	230	220	10	32	25	32	20	2	613		
05L3	20N/3W-5	Don Johnson, Constr. In	210	181	29	82	73.7	81	100				
05L4	20N/3W-5	Don Johnson, Constr. In	210	179	31	81	72.5	80	100				
05L5	20N/3W-5	Don Johnson	210	180	30	89	82.6	88.6	40				
05L6	20N/3W-5	Mike Fitzgerald	213	114	99	179	105	179	50	14	219		
05L7	20N/3W-5	S.R. Steehler	213			28							
05M1	20N/3W-5	Joe Snider	215	147	68	140	130	140	92	21	201		
05N4	20N/3W-5	Robert Hodgson	245			62							
05N1	20N/3W-5	Tom Bolling	245	212	33	60	55	60	12	11	38	1,411	
05N2	20N/3W-5	Rayonier, Inc.TW #6	245	245		460	93	166					
05N3	20N/3W-5	Arlie Umphrey	250	211	39	98	93	98	20				
05P1	20N/3W-5	Bob Hatton	213	206	7	36	31	36	25	10	94	3,491	
05R1	20N/3W-5	Port of Shelton	210	103.5	106.5	227	217	227	380	14.6	634	47,300	
065F	20N/3W-6	W.E. Conklin	240			56			13				
06A1	20N/3W-6	Carl Nelson	220	205	15	32	29	32	20	12	102		
06A2	20N/3W-6	Oak Park, Inc.	220	120.5	99.5	173.5	165	173.5	200	44	179	7,325	
06B1	20N/3W-6	Richard Hopkins	230	217	13	43	38	43	15	2	299	11,158	
06B2	20N/3W-6	Rick Leffler	230	100	130	200	160	200	35	20	107		
06B3	20N/3W-6	Peter Quaade	230	220	10	48	20	48	32	3	438	16,334	
06B4	20N/3W-6	Ron Shipley	225	124	101	181	171	181	200				
06B5	20N/3W-6	Lois Pearson	225	210	15	73	68	73	10	35	11	412	
06B6	20N/3W-6	L.S. Rutherford	220	208	22	32	29	32	16				
06E1	20N/3W-6	Dave Waite	240	216	24	57	52	57	40				
06E2	20N/3W-6	Tracy Young	240	212	28	73.4	65	73.4	100				
06E3	20N/3W-6	J. A. Tobler	240	213	27	72	70	73	60				
06E4	20N/3W-6	Steve Eridkson	240	209	31	72	66	72	18	20	55		
06E5	20N/3W-6	Bud Franklin	240	228.5	21.5	49							
06F1	20N/3W-6	Mike Fox	240	210	30	51	30	43	20	1	1,226		
06F2	20N/3W-6	Vern Helgert	240	234	6	40	36	40	15	10	92		
06F3	20N/3W-6	Norman Jones	240	220	20	50	39	48	20	8	153		
06F4	20N/3W-6	B. Scoles	240	200	40	75	70	75	12				
06G1	20N/3W-6	Real Estate Transaction	220	210	10	58	21	58	150				
06G2	20N/3W-6	Real Estate Transaction	220	210	10	59	23	56	150				
06G3	20N/3W-6	Don Rutherford	220	211	9	80	76	80	30	4	460		
06G4	20N/3W-6	Erma Rutherford	220	202	18	57	32	57	35				
06H1	20N/3W-6	Larry A. Warren	215	140	75	135	130	135	15	10	55		
06H2	20N/3W-6	Larry A. Warren	215	138	77	127			15	5	184		
06J1	20N/3W-6	Tracy Johnson	250	241	9	52	43	52	15				

06J2	20N/3W-6	Harold Martin	250	219	31	88	80	88	10				
06J3	20N/3W-6	Jess Morris	250	210	40	90	84	90	30				
06K1	20N/3W-6	Kenn Mcintosh	235	223	12	50	14	50	20	8	153		
06K2	20N/3W-6	Detray's Quality Homes	240	158	82	117	108	117	35				
06K3	20N/3W-6	Steve Wood	240	230	10	40	37	40	10				
06K4	20N/3W-6	Himlie Realty Inc	240	167	73	137	130	137	30	8	153		
06K5	20N/3W-6	Arden Pierce	240	221	19	78	60	65	50				
06K6	20N/3W-6	R.C. Sargent	235	236.2	18.8	46							
06L1	20N/3W-6	Jeff Conklin	230	195	35	105	100	105	36	11.3	129	4,819	
06L2	20N/3W-6	John Gregory	230	210	20	83	80	83	30	6	306		
06L3	20N/3W-6	Jamie Tiffany	230	185	45	112	108	112	15	5	184		
06M1	20N/3W-6	J. Richert	230			70							
06N1	20N/3W-6	Andy Tuson	230	203	27	59.4	35	59.4	30				
06N2	20N/3W-6	W.D. Fox	230	228	12	72	60	72	160				
06P1	20N/3W-6	George Lamagie	230	216	14	50	44	50	25	10	153		
06P2	20N/3W-6	Mickey Goodwin	230	207	23	82	79	82	50	5	613		
06P3	20N/3W-6	Jack Marquett	230	216	14	38	24	38	25				
06P4	20N/3W-6	Raymond Orr	230	214	16	52	47	52	25	10	153		
06P5	20N/3W-6	T & R Welch	230	212	18	61	36	61	50				
06P6	20N/3W-6	R.H. Lamb	230	225	15	65	58	65	290				
06Q1	20N/3W-6	Larry Brimmer	245	212	33	50	42	50	30				
06R1	20N/3W-6	Loren Hansen	245	202	43	59	25	59	16	2	339	12,650	
07A1	20N/3W-7	Lee Eyler	245	212	33	68	60	68	40				
07A2	20N/3W-7	Dave Strom	240	204	36	79	56	79	15				
07A3	20N/3W-7	J. & J. Hiedebrand	240	210	30	50	48	50	10	15	41		
07A4	20N/3W-7	Miska- ERA Conklin & C	240	206	34	61	37	61	20				
07A5	20N/3W-7	Stock Sobotka #1	235	208	27	88	80	88	50	27	114		
07A6	20N/3W-7	Stock Sobotka #2	235	208	27	88	80	88	35	20	107		
07B1	20N/3W-7	David Strom	240	209	31	71	33	71	30				
07B2	20N/3W-7	David Strom	240	215	25	61	26	61	30				
07D1	20N/3W-7	Rice & Quinn	230	216	14	83	80	83	40	12	204		
07E1	20N/3W-7	S & P Properties	230	199	31	63.5	35	63.5	60	6	460		
07G1	20N/3W-7	R. Miska	235	220	15	60	55	60	30	55	33		
07H1	20N/3W-7	Bryce Campbell	235	213	22	58	55	58	30	33	56		
07L1	20N/3W-7	City of Shelton, Well 2	225	109.9	115.1	708	205	673	905	25	54	56,327	26400
07L2	20N/3W-7	Gary Cronce	230	200	30	61	52	61	32				
07L3	20N/3W-7	Gary Cronce	230	200	30	61	52.5	61	50				
07L4	20N/3W-7	Gary Cronce	230	200	30	61	55	61	45				
07L5	20N/3W-7	City of Shelton, Well 3	230	120	110	298	210	273	900	24	256	114,741	
07P1	20N/3W-7	City of Shelton, Well 1	213	63	150	745	515	725	1485	27	76	119,306	
07P2	20N/3W-7	City of Shelton, Well 4	213	30	183	815	770	809	700	350	53		
08D1	20N/3W-8	Dave Walterick	235	217	18	52	42	56	33	13	110	4,089	
08D2	20N/3W-8	Jim Barstow	235	201	34	80	68	80	60				
08E1	20N/3W-8	Carl Johnson	245	210.5	34.5	60	34	60	20	6	124	4,623	
08E2	20N/3W-8	Carl Johnson	245	207.8	37.16	80	62	80	60				
08H1	20N/3W-8	Nicolas Cardona	225	182	43	67	44	65	24				

08H2	20N/3W-8	Nicolas Cardona	225	183	42	62	41	62	23				
08J1	20N/3W-8	H.E. Wilson	213	208.3	11.7	14							
08K1	20N/3W-8	Edward W. Hellman	215	165	50	116	108	116	15	5	184		
08L1	20N/3W-8	Hiapark	265	234	31	80	74	79	100				
08Q1	20N/3W-8	Dana Carroll	230	154	76	112	95	112	32				
08Q2	20N/3W-8	George Lombardie	230	158	72	90	86	90	8	2	287	6,435	
12B1	20N/4W-12	Nancy Wright	265	231.3	33.7	60.2	53	60.2	15	5	17		
12B2	20N/4W-12	Wm. J. Russell	260	230	30	86	71	86	250	30	115	12,882	
12B3	20N/4W-12	Tom Keeler	265	231.3	33.7	60.2	53	60.2	15	55	17		
12C1	20N/4W-12	Don Knudson	275	237	38	80	42	65	25	8	191		
12C2	20N/4W-12	Carol Flutcher	275	246	29	69			15	17	54		
12C3	20N/4W-12	Himlie Realty	275	235	40	91	86	91	50	27	68	2,526	
12D1	20N/4W-12	Airport Home Tracts Wat	280	232	48	60							
12D2	20N/4W-12	F. & J. Pascher	280	239	41	69	50	69	40	8	306		
12D3	20N/4W-12	E.E. Fluckinger	280	232.2	47.8	63							
12D4	20N/4W-12	L.F. Kiefer	280	245.5	34.5	63							
12Q1	20N/4W-12	Sam Tasi	230	218	12	138	130	138	10				
13H1	20N/4W-13	Arne Johnsen	213	188	25	76	73	76	1500	30	51		
13H2	20N/4W-13	Curt Nielsen	213	194	19	49	44	49	24	11	78	2,911	
13H3	20N/4W-13	J Tancrell	213	201	12	29	26	29	30	4	560		
17A1	20N/3W-17	Rayonier, Inc.TW #12	195	63	132	485	163	413	145	29			15000
17A2	20N/3W-17	Rayonier, Inc TW #14	200	97	103	204	175	200	188	56	28	5,166	
17G1	20N/3W-17	S & R James	200	79.6	120.4	191	189	191	15	11.45	80		
17K1	20N/3W-17	Rayonier, Inc TW #13	200	200		500	265	390					
17L1	20N/3W-17	Fredson Homes	180	-35	215	270	261	270	22				
17L2	20N/3W-17	Fredson Homes	180	95	85	120	106	120	18				
17L3	20N/3W-17	Einar Matson	163			50							
17L4	20N/3W-17	Omer Noble	168	44.7	123.3	152	150	152					
17N1	20N/3W-17	Gene Bergeson	100	100	0	73	66	79	20	60	20		
17R1	20N/3W-17	Monty Marshall	98	-10	108	220	218	220	10	10	61		
17R2	20N/3W-17	Marty Marshall	98		108	220							
18F1	20N/3W-18	John Kangas	185	128.8	56.2	75							
18G1	20N/3W-18	Jay J. Abel	213	213		149	143	149	5				
18J1	20N/3W-18	Kelly Buechel	197	178	19	40	13	40	20				
18J2	20N/3W-18	Kelly Buechel	197	178	19	40	13	40	20				
18J3	20N/3W-18	L. J. Anderson	180	145	35	103	97	103	60	10	265	9,874	
18J4	20N/3W-18	L.J. Anderson	200	168.8	31.2	43							
18K1	20N/3W-18	Bernhard T. Winiecki	230	92	138	164	160	164	60	3	919		
18K2	20N/3W-18	Wayne Clary	230	224	6	48.5	42	48.5	30	11	167		
18K3	20N/3W-18	Fred D. Peste	230	210	20	100	83	100	100	70	66		
18K4	20N/3W-18	Winiecki	230	143	55	66							
31A1	21N/3W-31	Rayonier, Inc.TW #8	225	116	109	452	212	300	90	62.5			
31C1	21N/3W-31	Rayonier, Inc TW #9	225	225		258							
31F1	21N/3W-31	Rayonier, Inc TW #10	225	95	130	265							
31R1	21N/3W-31	D & C Sandridge	225	209	16	40	28	40	30				
31R2	21N/3W-31	Melvin Arnold	225	208	17	33	19	33	8	13	38		

31R3	21N/3W-31	Lee Laferrier	225	207	18	35	31	35	40	14	175		
31R4	21N/3W-31	George Plews	225	201	24	33							
32E1	21N/3W-32	Rex Anderton	220	211	9	55	50	55	35				
32E2	21N/3W-32	Keith Fuller	220	214	6	60	52	60	40				
32E3	21N/3W-32	Keith Fuller	220	212	8	59	53	59	25				
32E4	21N/3W-32	Keith Fuller	220	212	8	57	39	57	30				
32E5	21N/3W-32	Keith Fuller	220	208	12	60	51	60	100				
32E6	21N/3W-32	Keith Fuller	220	208	12	39	30	39	60				
32F1	21N/3W-32	Rayonier, Inc TW #10	230	100	130	264							
32M1	21N/3W-32	John Glenn	220	210	10	39	18	39	40	5	330	12,326	
32M2	21N/3W-32	Pete Fassio	220	83	137	161	151	161	15	4	230		
32M3	21N/3W-32	D.D. McCormick	220			16							
32M4	21N/3W-32	D.D. McCormick	220	216.5	1.5	4							
32N1	21N/3W-32	Rayonier, Inc TW # 7	222	222		658							
36H1	21N/4W-36	R & I Dethlefs	230	96	134	159	137	159	30				

WL = Water level
Q = Pumping rate in gallons per minute
dd = Drawdown in feet


Consider the Source:
A Pocket Guide to Protecting
Your Drinking Water
Drinking Water Pocket Guide #3
EPA
United States
Environmental Protection
Agency

Cover Photo: The Kakagon Sloughs is located in northern Wisconsin, on the Bad River Chippewa Indian reservation. The Tribe depends on its waters for wild rice harvesting, fishing, and hunting. The integrity of this wetland is also important to drinking water sources in Lake Superior's Chequamegon Bay region. — USEPA Region 5, Great Lakes National Program Office.

Office of Ground Water and
Drinking Water (4606-M)
EPA 816-K-02-002
www.epa.gov/safewater
June 2002

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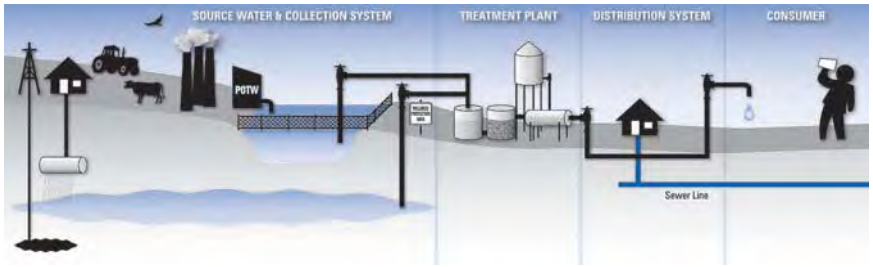
Table of Contents

I. Introduction

Virtually every stream, lake, river and aquifer in this country is used as a drinking water source. Protecting these source waters from contaminants is a major national priority in protecting public health through ensuring a clean, safe drinking water supply. Reducing the threat of waterborne illnesses helps save hundreds of millions of dollars annually by eliminating costly health care expenses, lost wages, work absences, decreased job productivity, and additional treatment costs incurred by Public Water Sytems (PWSs) required to meet federal drinking water quality standards. The Source Water Protection Program, authorized by the 1996 Amendments to the Safe Drinking Water Act (SDWA), outlines a comprehensive plan to achieve maximum public health protection. According to the plan, it is essential that every community take these six steps:

- **DELINEATE** your drinking water source protection area
- **INVENTORY** known and potential sources of contamination within these areas
- **DETERMINE THE SUSCEPTIBILITY** of your water supply system to these contaminants
- **NOTIFY AND INVOLVE THE PUBLIC** about threats identified in the contaminant source inventory and what they mean to their PWS.
- **IMPLEMENT MANAGEMENT MEASURES** to prevent, reduce, or eliminate threats
- **DEVELOP CONTINGENCY PLANNING STRATEGIES** to deal with water supply contamination or service interruption emergencies



II. Ensuring Safe Drinking Water Through the Multiple-Barrier Approach

Whether your tap water comes from surface or ground water, all drinking water sources are vulnerable to a variety of contaminants from a variety of activities. The origin of contaminants might be in your neighborhood or many miles away. When rain falls or snow melts, it picks up and carries away pollutants, depositing them into lakes, rivers, wetlands, coastal and even underground sources of drinking water. Because we know these activities have the potential to

contaminate the source of our drinking water, we have created four major barriers to protect our source water from contamination. Preventing pollution is critical to protecting drinking water from contamination and reducing the need for costly treatment. Community involvement and individual action are key to providing a safe supply of drinking water.

Risk Prevention Barrier

The best way to protect drinking water is to keep contaminants from entering source water. Multiple federal, state, and local laws and programs and individual action help communities identify the sources of drinking water and potential threats. This work enables communities to take appropriate steps to protect the watershed.

Risk Management Barrier

The public water system is the first line of defense to reduce or eliminate contaminants in source water. The Safe Drinking Water Act, which regulates these systems, develops standards and guidance to help them reach the goal of providing safe and reliable drinking water. They must collect and treat water, hire trained and qualified operators and have an emergency response plan in case of natural disaster or terrorist attack.

Risk Monitoring and Compliance Barrier

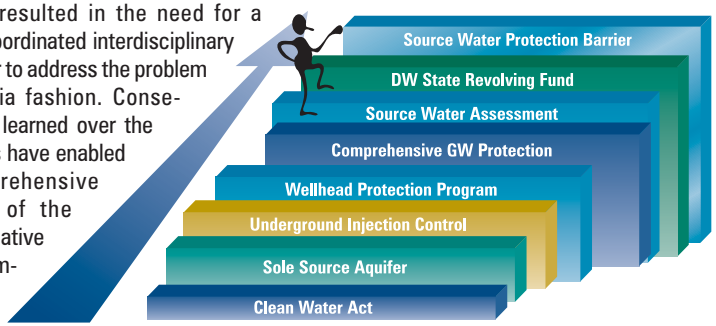
Dealing effectively with risks to drinking water requires constant evaluation of the water quality. Water is monitored at the source; at the treatment plant, after it has been treated and disinfected; at the distribution system, which delivers water through pumps and pipes to your home; and in some cases, at the consumer's tap. If systems have difficulty meeting regulations and providing safe, reliable drinking water, assistance can be provided to help them. If all this fails, enforcement action can be taken against the system.

Individual Action Barrier

Constant vigilance to protect water before it becomes your drinking water is essential and involves all of us. An informed, involved and supportive public is the foundation of drinking water protection. What we do in the watershed can directly impact the quality of water that arrives at the treatment plant. The more you know about drinking water, the better equipped you are to help protect it. See what you can do in the next section, titled, "What You Can Do to Protect Your Drinking Water."

III. SDWA and the Source Water Assessment and Protection Program

Originally created in 1970, EPA's primary mission was to address the potential risks to public health posed by a variety of sources polluting our air and water, and initial program efforts within the agency focused on individual threats from unique, discreet sources. Since then an understanding of the complexity of contaminants and activities posing threats has increased dramatically, and has resulted in the need for a combined and coordinated interdisciplinary approach in order to address the problem in a cross-media fashion. Consequently, lessons learned over the last two decades have enabled a more comprehensive understanding of the concept of cumulative risk (e.g., net impact from many



media such as air, water, and land uses) and we have modified preventive programs to meet those changing needs.

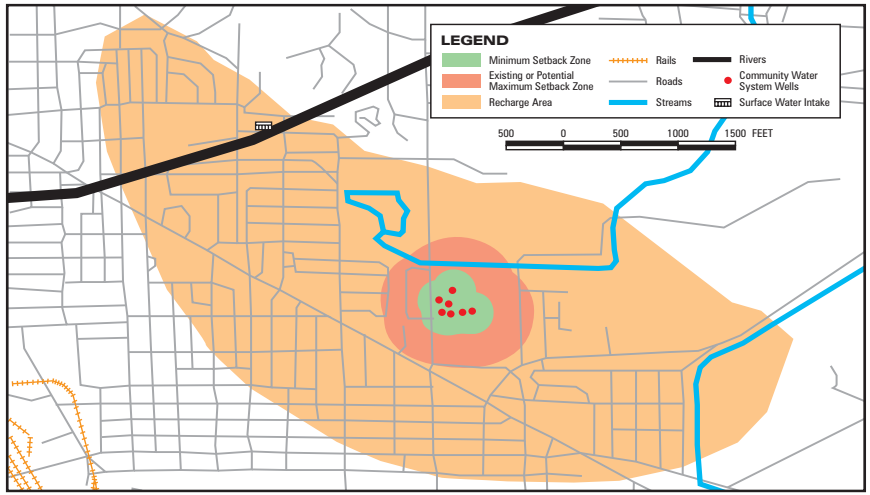
The 1996 amendments to the Safe Drinking Water Act (SDWA 1996) established EPA's Source Water Assessment and Protection Programs. They are the Agency's newest programs targeted at providing clean safe drinking water, but they build on programs developed to carry out EPA's original mission. Congress recognized the need for a more comprehensive and integrated approach to the problem of cumulative risk reduction, and SDWA 1996 mandated specific program elements to address the areas of risk identification (delineation and source inventories), risk ranking and screening (susceptibility analyses), risk management measures (prevention programs), and preparation for unexpected drinking water supply replacement emergencies (contingency planning).

The SDWA Amendments of 1996 outline six steps for prevention programs to protect and benefit public drinking water systems. Together, they form the basis of comprehensive drinking water source protection.

- **STEP 1 – DELINEATE** the Source Water Protection Area (SWPA).

  PURPOSE: Delineating the SWPA shows the area to be protected and prescribes the boundaries of the area from which drinking water supplies are drawn.

  This step also designates the area within which contaminant source inventories are conducted, identifying substances or activities that may pose potential risks to the drinking water supplies withing that area. Delineations may be performed using a variety of accepted methods (e.g., calculated fixed radius; computer modeling, etc.), and are most protective when they include all sources of water and potential contaminants and activities affecting them within the prescribed area.



This map shows the delineation of a Source Water Protection Area.

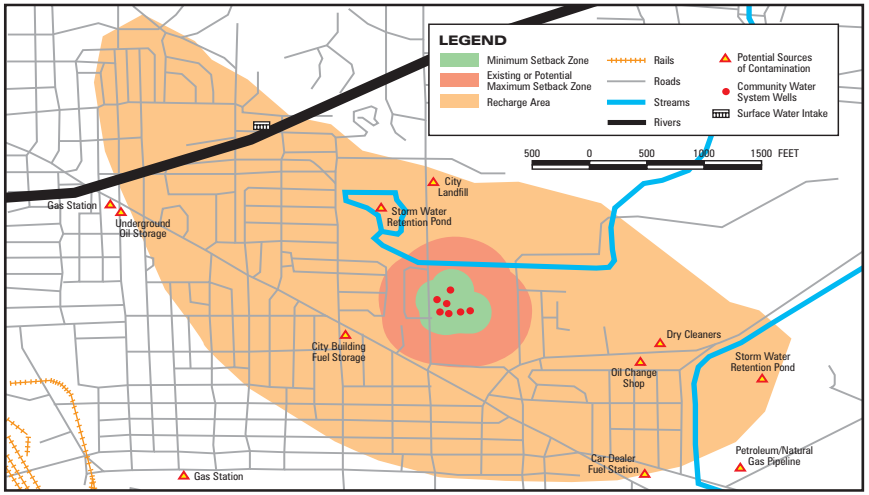
- **STEP 2 – INVENTORY** known and potential sources of contamination.

  PURPOSE: The source inventory lists all documented and potential contaminant sources or activities of concern that may be potential threats to drinking water supplies.

  The source inventory indicates the level of concern assigned to each potential risk by ranking, rating, or prioritzing management measures to reduce or eliminate them.

A contaminant source list may look like this:

Potential Contaminant/Activity	Threat or Risk	Level of Concern
Agricultural Crop Spraying	Excess amounts of material or improper application methods	Low to moderate, depending on proximity to source waters
Industrial Waste Disposal Wells (e.g., Class V Wells)	Introduction of chemicals directly into or above USDWs	Moderate to high, depending on surrounding hydrogeology
Storm water runoff; car washes; service stations	Introduction of contaminants into ground or surface water	Low to moderate, depending on type of surrounding facilities (e.g., parking lots) and proximity to source waters.



This map inventories known and potential sources of contamination.

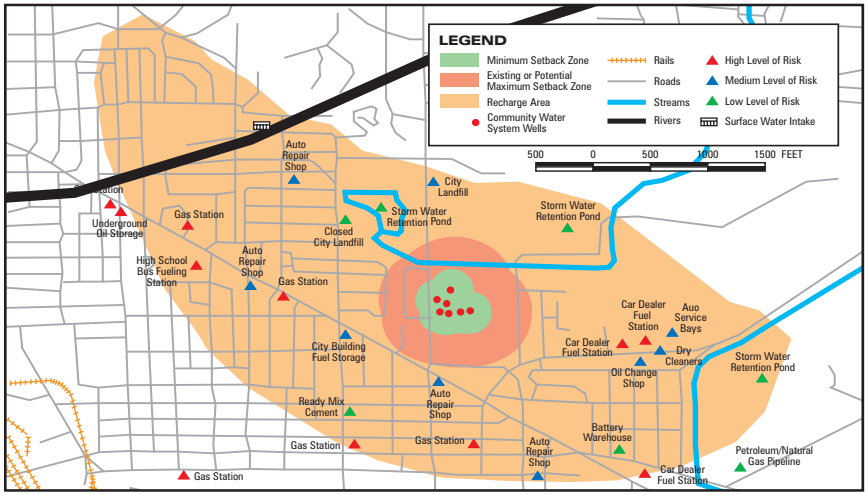
- **STEP 3 – DETERMINE THE SUSCEPTIBILITY** of the PWS to contaminant sources or activities within the SWPA.

  PURPOSE: Determining susceptibility of the PWS to inventoried threats relates the nature and severity of the threat to the likelihood of source waters serving that system being contaminated.

  Mitigating factors taken into account when determining susceptibility include potency or toxicity of the contaminant, volume of discharge or release, distance from wells or intakes, and the likelihood of entry of the contaminant into the source waters.

  A susceptibility determination for an individual PWS may look like this:

Contaminant/ Activity	Level of Concern	Risk Reducing Factors	Susceptibility Rating
Leaking Underground Storage Tanks	High	Remove or Repair Tanks	High
Concentrated Animal Feeding Operations	Moderate	New/Upgraded Facility and Equipment	Low
Road Salt Storage Shed	Moderate	Diked facility with berms	Moderate



This map rates the susceptibility of a PWS to inventoried threats.

- **STEP 4 – NOTIFY AND INVOLVE THE PUBLIC** about threats identified in the contaminant source inventory and what they mean to their PWSs.

  PURPOSE: To ensure that the public has information necessary to control and modify their own actions to prevent contamination and to participate effectively in community activities to protect drinking water.

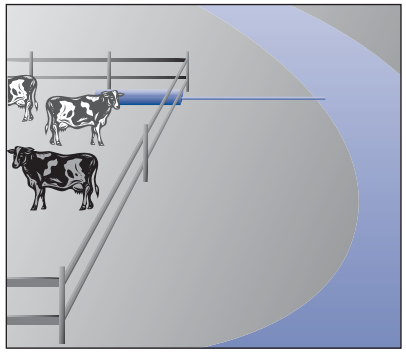
  – Use plain English in reports
  – Provide maps of the SWPA
  – List, show or indicate potential sources/threats to the PWS identified within the SWPA
  – List, rank, or otherwise prioritize importance of threats identified to the individual PWS and explains what it means to your water supply
  – Reports are unique to each individual PWS
  – Public meetings are effective methods of involving the community.

- **STEP 5 – IMPLEMENT MANAGEMENT MEASURES** to prevent, reduce, or eliminate risks to your drinking water supply.

  PURPOSE: Using the information gathered from the assessments allows specific management measures to be formulated and put in place. By examining the results of the contaminant source inventory and the susceptibility determination for each PWS, these measures can be tailored to address each threat or array of risks specific to each PWS.

  A successful drinking water contamination prevention plan is tailored to the unique concerns and circumstances of the local community. Effective involvement is a critical component to a successful public health plan.

  – Every PWS's source water is unique.
  – Management measures need to tailor local actions to address threats to your water supplies.



- Early involvement in the source water protection process and consensus on need for action is essential — you can help!
- Many players make for broad application and coverage of management strategies that bring the best individual programs into play.
- Some key players and tools are:
  - local business communities
  - media
  - parent-teacher associations
  - citizen activists
  - state, county, and local governments
  - sanitary surveys
  - zoning regulations
  - voluntary best management practices (BMPs)

- **STEP 6 – DEVELOP CONTINGENCY PLANNING STRATEGIES** to deal with water supply contamination or service interruption emergencies.

  PURPOSE: In the event of short- or long-term water drinking water supply disruption as a result of natural causes (e.g., biological contamination or floods) or intentional destruction (e.g., vandalism or terrorism), water supply replacement strategies that coordinate all available efforts to restore service to single or multiple PWSs are an indispensible part of any drinking water protection program.

  – Outline emergency plans for short or long-term drinking water supply replacement

  – Direct plan towards water supply interruption due to contamination or physical damage to supply system

  – Coordinate the efforts of water supply managers with those of civil defense, local emergency response, hazmat/spill cleanup, and local area disaster response networks

IV. Tools, Resources, and Actions Useful In Protecting Your Drinking Water Supplies

The Safe Drinking Water Act provides for a number of resources to help local communities protect their drinking water:

- **Source Water Assessments** — States are required to complete source water assessments for every public water supply in the U.S. Congress provided for funds under Section 1453 through the Drinking Water State Revolving Fund (DWSRF) for support.
- **Drinking Water State Revolving Fund Set Asides** — States may set aside funds under 1452(g) from the DWSRF up to 10 percent of a state's allotment for the DWSRF to administer or provide technical assistance. States must match, dollar-for-dollar, the 10 percent set aside (see Section VIII).
- **Drinking Water State Revolving Fund Set Asides** — States may set aside funds under 1452(k) from the DWSRF up to 15 percent of the state's capitalization grant for more than one of several source water protection activities (i.e., land acquisition/easements, voluntary protection and petition activities, source water assessments and well head protection).

- **Wellhead Protection** — Each state must establish a program under Section 1428 to protect the land areas around water supply wells from contaminants that may enter the ground water and adversely affect human health.
- **Source Water Petition Program** — A state may establish a source water protection partnership petition program under 1454 of the Act designed to assist in the local development of a voluntary, incentive-based partnership between water supplies and community members. States can use DWSRF funds for loans to water supplies to implement local programs.
- **Water Conservation Planning Guidelines** — EPA issued guidelines under Section 1455 for water conservation plans for public water systems. States may require systems to submit water conservation plans as a condition of receiving a DWSRF loan.
- **Sole Source Aquifer Protection** — Entities may petition EPA for protection of an aquifer that is the sole or principal source of drinking water for 50 percent or greater of the local population served (see "Petition's Guidance for Sole Source Aquifers", EPA 44016-87-003 Feb. 1987).
- **State Underground Injection Control Programs** — EPA must review applications under Section 1422 of the Act for state or tribal primacy (primary enforcement responsibility). Approved programs will be adopted by the state or tribe, which will promulgate rules to ensure non-endangerment of drinking water sources.

- **Oil and Gas Programs** — Section 1425 of the Act allows EPA approval of existing state oil and gas programs if the state can show that the program is effective in preventing endangerment of drinking water supplies.
- **More Information** — "State Source Water Assessment and Protection Program Guidance" (EPA 816-R-97-009 Aug. 1997) on www.epa.gov/safewater/Pubs/index.html discusses these and other statues and provisions pertaining to Source Water Assessment and Protection.

V. Additional Resources Available Under the Clean Water Act

The Clean Water Act was established by Congress in 1972 and is the primary federal law that protects our nation's waters, including lakes, rivers, aquifers and coastal areas. The Clean Water Act's primary objective is to restore and maintain the integrity of the nation's waters. This objective translates into two fundamental national goals: eliminate the discharge of pollutants into the nation's waters, and achieve water quality levels that are fishable and swimmable.

- **Federal Assistance to States** — Under Section 106 of the Act, EPA may provide money to states (including territories, the District of Columbia, tribes) and interstate agencies to establish and implement ongoing water pollution control programs, including ground water programs.
- **Water Quality Standards** — Under Section 303(C)(1) define water quality goals for a water body by designating the use of the water, setting criteria to protect those uses, and setting anti-degradation provisions for the water body. States must update their water quality standards every three years.

  New and revised water quality standards "shall be submitted" to EPA for review. Under Section 303(c)(2) of the Act, water quality standards "shall consist of" designated uses and water

quality criteria. In setting water quality standards, states shall consider the use and value of public water supplies.

- **Point Source Effluent Limits, or Total Maximum Daily Loads (TMDLs)** — Under Section 303(d), States "shall identify those waters for which" the point source effluent limits [see §§301 (b)(l)(A)-(B)] are not stringent enough to implement a water quality standard, and establish a ranking of such waters taking into account the severity of pollution and the uses made of such waters.

  Section 303(d)(1) provides for the establishment of TMDLs for pollutants that EPA has listed under §304(a)(2) as "suitable for such calculation." States shall set the TMDLs "at a level necessary to implement the applicable water quality standards with seasonal variation and a margin of safety taken into account."

  Section 303(d)(2) requires States to submit to EPA for approval "from time to time" their list of impaired and threatened waters and the TMDLs they have established for those waters.

- **The National Water Quality Inventory Report to Congress** — Under 305(b) States must report to EPA on the quality of their waters.

- **Publishing of TMDLs** — 304(a)(2) of the Act requires EPA to publish information on, "and the identification of, pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives."
- **NPS Program** — States must 1) conduct statewide assessments of their waters under Section 319 to identify those that were either impaired or threatened because of NPSs; 2) develop NPS management programs to address the impaired or threatened waters.

  Under 212, 319, and 320, funding is provided through the Clean Water State Revolving Fund (CWSRF) — funding is provided for non point source, point source and estuary source water protection projects, depending on priorities determined by each State.
- **Dredge and Fill** — Section 404 regulates the discharge of dredged or fill material into waters of the U.S.
- **NPDES Program** — The National Pollutant Discharge Elimination System Program — regulates point source discharges to surface waters under Section 402 of the Act.

VI. Financing for Source Water Assessment and Protection Programs

There are two major avenues of funding for the drinking water source water assessment and protection programs. They are the Drinking Water State Revolving Fund (DWSRF) and the Clean Water Act State Revolving Fund (CWSRF).

Section	*Description*
SDWA 1452	The 1996 Amendments to the Safe Drinking Water Act authorized the DWSRF to assist public water suppliers to finance the cost of infrastructure needed to achieve or maintain compliance with SDWA requirements and to protect public health. In addition, states may use a portion of their capitalization grants to fund various state and local water systems management programs and projects including SWP activities. States may elect to use up to 31 percent of the funds available to them under Section 1452 for eligible "set-aside" activities. The DWSRF program has made available billions of dollars in assistance since 1997 to finance infrastructure improvements for drinking water utilities. States have also reserved $575 million from the

$3.6 billion in federal grants they have received to fund other programs and activities that support their drinking water programs through these "set-asides;"

CWA 106; 319

Subchapter VI of the CWASRF provides a powerful partnership between EP A and the states, providing states with the flexibility to fund projects that will address the highest priority water quality needs (see Sections 601-607). CW A funds may be used to fund certain source water protection activities, and cost savings can be realized through combining SWP and CWA efforts. CWASRF loans can be used for watershed protection; funds allocated under Section 106 of the Act may be set aside for state ground water programs, and Section 319 funds, which are aimed at non-point source pollution prevention, may also be used for source water protection. Nationally, the CWSRF program has more than $37 billion in assets and has provided $34 billion in assistance since 1988. The CWSRF program currently funds nearly $4 billion annually in water-quality related projects, including more than $1 billion to fund projects addressing non-point sources of pollution that can often negatively impact sources of drinking water.

In addition to federal resources, these tools bolster protection at the local level.

- **Education**: Consumer awareness and citizen advocacy highlight the problem
- Voluntary **Best Management Practices** (BMPs): Once individuals understand they may be part of the problem, they also understand they can be part of the solution
- **Sanitary Setbacks** are prescribed by local health codes for the placement of individual private waste disposal systems (septic tanks) and community waste-treatment systems
- **Zoning** has proven to be a very powerful tool in preventing siting of potential contaminant threats or activities adjacent to public drinking water supply source waters

VII. The Underground Injection Control (UIC) Program and SWAP

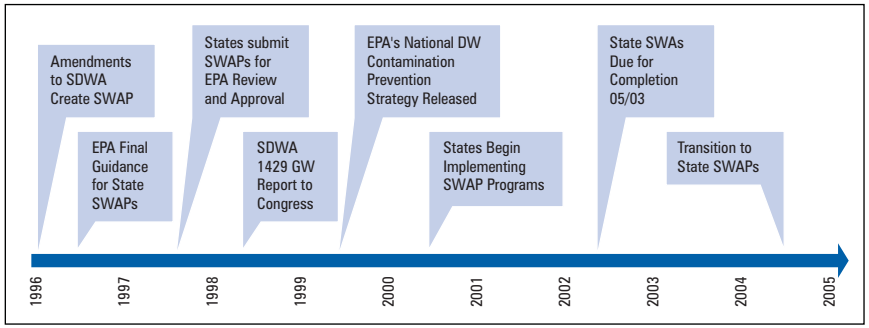
The UIC program is a crucial component of the source water assessment and protection program, because it identifies, permits, and regulates the design, siting, operation, and maintenance of injection wells that are designed to dispose of waste underground. It is the major federal and state program to control some 800,000 wells with the potential to contaminate drinking water sources if not properly managed. The program identifies, as such, these wells are considered potential contaminant sources in any source water assessment and protection program contaminant source inventory. For example, all new motor vehicle waste disposal wells (e.g., service station bay floor drains) and all new large-capacity cesspools (e.g., serving multiple dwellings or single units serving more than 20 persons per day) were banned as of April 2000. The Safe Drinking Water Act requires EPA to provide safeguards so that injection wells or other similar conveyance systems do not endanger current and future underground sources of drinking water (USDWs).

Through the UIC program, EPA has developed minimum federal standards to regulate wells that range from deep, technically-sophisticated and highly-monitored wells, to shallow on-site drainage systems such as septic systems, cesspools, and storm water drainage wells. These require-

ments also cover wells that discharge a variety of hazardous and nonhazardous fluids above, into, or below aquifers. A comprehensive description of the five different classes of UIC wells may be found in "Protecting Drinking Water Through Underground Injection Control," EPA 816-K-02-001.

EPA's main concern relative to the source water assessment and protection program is the large inventory of Class V UIC wells — typically shallow on-site drainage systems such as septic systems, cesspools, and storm water drainage wells. They are a concern because their simple construction provides little or no treatment of the injected fluids. There are more than 500,000 Class V wells in operation. Some examples are agricultural drainage wells, aquifer recharge and aquifer storage and recovery wells, industrial waste disposal wells, large capacity cesspools, large capacity septic systems, motor vehicle waste disposal wells, and storm water drainage wells. There are many other subcategories of Class V wells.

VIII. SWAP Milestones



The focus of many of EPA's efforts in the 1990s shifted from a cleanup and remediation-oriented approach to one of prevention. In the next few years, citizens, local, state, tribal, and federal officials will work together to collect information and take action to protect our precious drinking water sources. Because of the changing nature of potential threats and local needs, communities will need to periodically revise their strategies.

IX. Best Management Practices (BMPs) Available for SWPAs

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
Septic Systems	Improper siting, maintenance and use may contaminate both surface and ground water by percolation or runoff. Bacteria, protozoa, and viruses present in sanitary wastewater can cause gastrointestinal illness, cholera, hepatitis A and typhoid if consumed.	• Establish proper siting criteria • Specify appropriate design and construction criteria • Establish operation and maintenance protocols ("Septic System Ground Water Protection" EPA, July 1986 GPO 1991-517-003-28046) • Analyze assimilative capacity of soils and receiving water to

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
		determine appropriate density of septic system units. • Consider connecting to a public water system
Lawn and Garden Fertilizer	Field leaching or runoff into surface and ground water. Nitrogen leaching into drinking water supplies at levels above MCLs may cause "blue baby syndrome" in infants under 6 months — life-threatening without immediate medical	• Eliminate excess uses • Ensure proper application • Select appropriate fertilizer • Avoid application near wells used for drinking water, agricultural drainage wells; surface waters

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
	attention. Symptoms are shortness of breath and blue skin color. Phosphorus may affect taste and odor of drinking water and may require treatment.	• Plant native plants and grasses requiring less fertilizer and water
Pet Waste	Watershed runoff or direct contact can introduce wastes into drinking water supplies. *Cryptosporidium*; *Giardia lamblia*, *Salmonella*, and *E. coli* pose the greatest threats	• Pick up after pets

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
Pesticide Application (Large Scale)	Runoff to surface waters due to rainfall or irrigation return flow. Soil injection threatens ground water sources. Possible health from exposure to large amounts of pesticides in drinking water over a long period of time include: effects include cancer, liver and kidney damage, reproductive difficulties, and nervous system effects.	• Pesticide alternatives through Integrated Pest Management • Mix, load, and apply consistent with label directions • Reduce techniques such as soil incorporation, pre- and post-plant emergence applications, spot treatments; split applications • Proper storage and disposal

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
		• Avoid application around wells used for drinking water, agricultural drainage wells, and surface water
Turfgrass/ Agricultural Fertilizer Application	Field leaching or runoff into surface and ground water. Nitrogen leaching into drinking water supplies at levels above MCLs may cause "blue baby syndrome" in infants under 6 months — life-threatening without immediate medical	• Utilize application rates and fertilizer types consistent with actual plant needs. • Time applications with periods of maximum crop uptake • Impede runoff by using tillage buffer strips, or filter strips

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
	attention. Symptoms are shortness of breath and blue skin color. Phosphorus may affect taste and odor of drinking water and may require treatment.	• Store and dispose fertilizers properly • Avoid application near wells used for drinking water
Livestock and Poultry Waste	High Nitrogen and pathogens (*Cryptosporidium; Giardia lamblia*, *Salmonella*, and *E. coli* can enter both ground and surface water sources used for drinking water via runoff or percolation.	• Prevent animal waste contact with water • Ensure proper land application of manure

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
		• Avoid application near drinking water wells and surface waters • Use pasture management techniques such as fencing and planting legumes • Avoid siting animal waste lagoons near drinking water wells or flood plains • Use low-permeability lagoon liners • Aerobically compost horse manure

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
		• Divert wildlife from sensitve areas by fencing, mowing, landscaping, tree pruning, and drainage devices
Sanitary and Combined Sewer Overflows (SSOs/CSOs)	SSOs discharge untreated sewage through broken pipes, equipment failures and overloads CSOs discharge untreated sewage and storm water when system capacity is exceeded Contaminants are bacteria, molds, fungi, protozoa and helminths	• Non-structural prevention methods such as visual inspections, monitoring and maintenence programs, employee training and public education • Consider structural prevention methods such as upgrading of collection

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
	Chief threats are gastroenteritis, cholera, dysentery and infectious hepatitis	systems, wet-weather storage facilities, and new sewer collection systems
Injection Wells (UIC Program), Classes I-IV	Misuse or discharge of harzardous chemicals into Class V Wells	See companion Pocket Guide for descriptions of well classes and regulations that apply to each
Injection Wells (UIC Program), Class V	Injection of nonhazardous fluids into or above USDWs	(Available BMPs for selected representative examples below) See vehicle washing, small quantity chemical use, and underground storage tanks

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
Storm Water Runoff – Rain or snow runoff carrying sediments and contaminants into surface or ground waters – Pathways include excess volume runoff from settling ponds, municipal storm drains, parking lots, truck stops, gas stations, airports (fuel and	Possible contaminants include gasoline, oil, automotive fluids, sediment, pesticides, nutrients, animal wastes, and hazardous wastes. Nationally, 77 of 127 priority pollutants have been detected in urban runoff. Potential health effects from these contaminants include gastrointestinal illness, reproductive and developmental effects and increased cancer risk.	Basic pollution prevention practices such as erosion control and sedimentation control measures; land use controls; grassed swales; buffer strips; filter strips; storm water capture and retainment ponds, and constructed wetlands.

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
deicing fluids) and road chemical storage		
– Sediment and contaminants carried to surface and ground waters via infiltration through soil of drainage to subsurface wells or septic systems.		

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
Vehicle Washing – Nationally, States estimate that there are in excess of 7,200 facilities of this type currently in operation.	Contaminants include used oil, degreasers, antifreeze and synthetic oils. Patrons may use solvents or degreasers at unmanned washing facilities, thereby contributing to contamination of rinse waters entering Class V wells. Potential health effects from these contaminants include kidney damage; circulatory problems, increased cancer risk; delays in physical or mental development.	• Use alternative cleansing agents such as phosphate-free, biodegradable detergents. • Discourage use of solvent and emulsifier-based agents • Install water-recycling systems • Train employees on spill control and response to problems • Control and manage spills

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
Small Quantity Chemical Use Chemicals of concern may reach ground and surface waters through improper disposal practices via discharge to sewers, septic systems, dry wells, or through improper handling, hauling and disposal.	Includes chemicals used in cleaning, degreasing, polishing, paint preparation, rust removal, photo processing, medical practices.	• Avoid excess use of chemicals • Follow label directions on proper use, storage and disposal • Train employees on spill control and response protocols • Refer to manufacturer's Material Safety Data Sheets for specific hazard descriptions

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
Underground Storage Tanks (USTs) National inventory shows approximately 714,000 USTs on 269,000 sites.	Releases of petroleum fuel substances through corrosion of parts, improper installation, failure of piping systems, sloppy fuel deliveries, and improper operation and maintenance	• Ensure compliance with federal UST requirements (see: www.epa.gov/oilspill) • Consider local registration programs for exempt tanks • Consider local land-use controls such as zoning, use restrictions, permits and setbacks

Category, Activity, or Threat	Impacts, Implications, or Risk	Possible BMPs Available
Above Ground Storage Tanks (ASTs)	Release of petroleum fuel substances mainly through leaks or spills may enter drinking water supplies via soil accumulation or runoff in storm waters to surface	• Follow federal AST requirements (see: www.epa.gov/oilspill) • Periodic cleanup of containment areas • Consider local registration programs for exempt tanks • Consider local land-use controls such as zoning, use restrictions, permits and setbacks

X. Glossary

Aquifer – A natural underground layer, often of sand or gravel, that contains water.

Assessment – An analysis of the susceptibility of drinking water sources to contamination, communicated effectively to the public.

Ground Water – The water that systems pump and treat from aquifers.

Potential Contaminant Source – Specific point or nonpoint sources from which contamination of drinking water may originate; activities that may result in drinking water contamination.

Public Water System (PWS) – Any water system which provides water to at least 25 people for at least 60 days annually. There are more than 170,000 PWSs providing water from wells, rivers and other sources to about 250 million Americans. The others drink water from private wells. There are differing standards for PWSs of different sizes and types.

Risk Ranking – Rating or prioritizing levels of concern of potential contaminant sources based on susceptibility of public water systems.

Sole Source Aquifer – A drinking water supply in an area with few or no alternative sources to the ground water resource, and where if contamination occurred, using an alternative source

would be extremely expensive. If such an aquifer supplies a public water system on which at least 50 percent of the population depends, it may be designated as a sole source aquifer.

Source Water Protection Area – The area delineated by the state for a public water system, or including numerous PWSs, whether the source is ground water, surface water, or both. Delineating the source water protection area is part of the state source water assessment plan approved by EPA under section 1453 of the Safe Drinking Water Act.

Surface Water – The water that systems pump and treat from sources open to the atmosphere, such as rivers, lakes, and reservoirs.

Susceptibility – The level of risk of drinking water contamination, based on the nature and severity of contaminants, and the likelihood of the contaminants getting into a drinking water source.

Underground Injection Control Program – A program to prevent injection activities from endangering underground sources of drinking water.

Wellhead Protection Area – The surface and subsurface area surrounding a well or well field, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or field.

XI. Contacts

The following list includes regional office contacts for Source Water Assessment and Protection and Underground Injection Control. For state contacts, regional and local contacts at other federal agencies, and other partners, see www.epa.gov/safewater/protect/contacts.html. The Safe Drinking Water Hotline (bottom of page) also maintains the list of these contacts.

EPA Region 1 – Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut ..... (617) 918-1578

EPA Region 2 – New York, New Jersey, Puerto Rico and the U.S. Virgin Islands ..... (212) 637-3822

EPA Region 3 – Pennsylvania Delaware, Maryland, Virginia, West Virginia, and Washington, DC ..... (215) 814-5779

EPA Region 4 – Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, and Florida ..... (404) 562-9459

EPA Region 5 – Minnesota, Wisconsin, Illinois, Michigan, Indiana, and Ohio ..... (312) 886-9262

EPA Region 6 – New Mexico, Texas, Oklahoma, Arkansas, and Louisiana ..... (214) 665-7129

EPA Region 7 – Nebraska, Kansas, Iowa, and Missouri ..... (913) 551-7423

EPA Region 8 – Montana, North Dakota, Wyoming, South Dakota, Utah and Colorado ..... (303) 312-6753

EPA Region 9 – California, Nevada, Arizona, Hawaii, Guam, and American Samoa ..... (415) 744-1829

EPA Region 10 – Washington, Oregon, Idaho, and Alaska ..... (206) 553-1563

Headquarters – Office of Ground Water and Drinking Water ..... (202) 564-3867

For More Information

EPA Office of Ground Water and Drinking Water

www.epa.gov/safewater

Safe Drinking Water Hotline 1 (800) 426-4791

City of Shelton

November 25, 2019

Central Mason Fire and EMS

Dear Emergency Responder:

The City of Shelton has recently revised their wellhead protection plan as required by the Washington Department of Health (DOH). As part of this plan, the water system must coordinate with agencies responsible for incident/spill response procedures. As stated in the DOH *Wellhead Protection Program Guidance Document,* "if a public water system's source water is determined to be vulnerable to surface activities, special procedures may need to be incorporated into local emergency response plans." As part of wellhead protection planning, emergency responders are asked to evaluate whether changes in incident/spill response procedures are needed to better protect groundwater within wellhead protection areas. To assist with your review, a map of the wellhead protection area is enclosed.

The findings of the wellhead protection study indicate that, due to the nature of the surficial geology, surface spills will not likely be quickly absorbed into the production aquifer unless the spill is in close proximity to the production wells. However, care should still be exercised because the nature of the geology can vary appreciably over short distances.

Thank you for your attention in this matter. If you have any questions about the plan, please feel free to contact us.

Sincerely,

City of Shelton

cc. Mason County Sheriff, City of Shelton Police Department

Springs

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

Ground Water Contamination
Susceptibility Assessment Survey Form

Complete **one** form for **each** ground water source (well, wellfield, spring) used in your water system (photocopy as necessary).

PART I: System Information

Well owner/manager: City Of Shelton

Water system name: City Of Shelton

County: Mason

Water system ID number: 78170N Source number: S01

Well depth: _____ feet

Source name: Spring House

WA well identification tag number: _____ _____ _____ - _____ _____ _____

☑ Well not tagged

Number of connections: 0 Population served: 0

Township: 20 N Range: 3 W

Section: 18 ¼ ¼ Section: _____

Latitude/longitude (if available): 47.227841° / -123.112764°

How was latitude/longitude determined?

_____ Global positioning device _____ survey _____ topographical map
X other: Google Earth

*Please refer the instructions for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: ___/___/___month/day/year

last reconstruction: ___/___/___month/day/year

☑ Information unavailable

2) Well driller:_____

_____

_____

☐ Well driller unknown

3) Type of well: ___ Drilled: ☐ rotary ☐ bored ☐ cable (percussion) ☐ Dug

___ other: ☑ spring(s) ☐ lateral collector (Ranney)

☐ driven ☐ jetted ☐ other:_____

4) Well report available ☐ Yes (attach copy to form) ☑ No

5) Average pumping rate: 500 - 2000 (gallons/min)

Source of information_____

If not documented, how was pumping rate determined?_____

_____

☐ Pumping rate unknown

6) Is this source treated?

If so, what type of treatment:

☐ disinfection ☐ filtration ☐ carbon filter ☐ air stripper ☐ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

_____

_____

7) If source is chlorinated, is a chlorine residual maintained: ☐ Yes ☑ No

Residual level:_____ (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

☐ <20 ft ☐ 20-50ft ☐ 50-100ft ☐ 100-200ft ☐ >200ft

☐ information unavailable Does not apply

2) Depth to ground water (static water level):

☐ <20ft ☐ 20-50ft ☐ 50-100ft ☐ >100ft

☐ flowing well/spring (artesian) Does not apply

How was water level determined?

☐ well log ☐ other _____

☐ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

_____ psi (pounds per square inch) **or**

4 feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ☐ Yes ☑ No

5) Wellhead elevation (height above mean sea level): 212 feet

How was elevation determined? ☐ topographic map ☐ Drilling/Well Log ☐ altimeter

☐ other: Google Earth

☐ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

_____ evidence of a confining layer in well log

_____ no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer**? ☐ Yes ☐ No Does not apply

☑ information unavailable

7) Sanitary setback:

☐ < 100ft* ☐ 100-120ft ☐ 120-200 ft ☐ >200ft Does not apply

* If less than 100ft, describe the site conditions:

8) Wellhead construction:

☐ wellhead enclosed in a wellhouse

☑ controlled access (describe): The spring house is enclosed by a building with concrete sides & gravel bottom. Dim are 20' wide, 27' long, 7' deep

☑ other uses for wellhouse (describe): The spring house has a cement bulkhead around one side. It is also enclosed with chain link fence & lock gate.

☐ no wellhead control

9) Surface seal:

☐ 18 ft Does not apply

☐ <18 ft (no Department of Ecology approval)

☐ <18 ft (Approved by Ecology, include documentation)

☐ depth of seal unknown

☐ no surface seal

10) Annual rainfall (inches per year):

☐ <10 in/yr ☐ 10-25 in/yr ☑ >25 in/yr

PART IV: Mapping Your Ground Water Resource

The capture zone is delineated in the Shelton WHPP using numerical modeling. Refer to the WHPP for more info.

1) Annual volume of water pumped:_____ (gallons)

How was this determined?

☐ meter

☐ estimated: ☐ pumping rate (_____)

☐ pump capacity (_____)

☐ other:_____

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6-month ground water travel time: _____feet

1-year ground water travel time: _____feet

5-year ground water travel time: _____feet

10-year ground water travel time: _____feet

Information available on length of screened/open interval?

☐ Yes ☐ No

Length of screened/open interval: _____feet

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6- month time of travel boundary?

☐ Yes ☑ No (mark and identify on map)

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6-month time of travel boundary?

☐ Yes ☑ No (mark and identify on map)

Comments:_____

_____

_____

_____

_____

PART V: Assessment of Water Quality

1) **Regional sources of risk to ground water**:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five-year ground water travel time. If you do not know if one of the following is present, mark the "unknown" space.

	6-month	1-year	5-year	unknown
No • likely pesticide application				
No • stormwater injection wells				
No • other injection wells				
No • abandoned ground water well				
No • landfills, dumps, disposal areas				
No • known hazardous materials clean-up site				
No • water system(s) with known quality problems				
No • population density >1 house/acre				
No • residences commonly have septic tanks				
No • Wastewater treatment lagoons				
No • sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6-month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)

If other recorded or potential sources of ground water contamination exist within the ten-year time of travel circular zone around your water supply, please describe:

2) **Source-specific water quality records**: For each type of test below, mark the row that applies to the sample results for this source. Consider all the sample results from the past 12 years. (MCLs are noted next to the specific test or listed in assistance package.)

A. **Nitrate:** (Nitrate MCL = 10 mg/l)

Results greater than MCL	_____
<2 mg/liter nitrate	0 ND
2-5 mg/liter nitrate	_____
<5 mg/liter nitrate	_____
Nitrate sampling records unavailable	_____

B. **VOCs:** (VOC detection level is 0.5 ug/l or 0.0005 mg/l)

Results greater than MCL or SAL	_____
VOCs detected at least once	_____
VOCs never detected	ND
VOC sampling records unavailable	_____

C. **EDB/DBCP:**
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)

EDB/DBCP detected below MCL at least once	_____
EDB/DBCP detected above MCL at least once	_____
EDB/DBCP never detected	_____
EDB/DBCP tests required but not yet completed	_____
EDB/DBCP tests not required	X

D. **Other SOCs (Pesticides):**

Other SOCs detected (pesticides and other synthetic organic chemicals)	_____
Other SOC tests performed but none detected (list test methods in comments)	ND
Other SOC tests not performed	_____

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here: SOC Method 525.2

_____

_____

_____

E. **Bacterial contamination:**

Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records)? No

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source? No

Source sampling records for bacteria unavailable _____

The capture zone is already mapped with a numerical model.

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10-year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

☐ Yes ☐ No

Describe with references to map produced in Part IV:

_____

_____

_____

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

☐ Yes ☐ No N/A

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

☐ Yes ☐ No

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

☐ Yes ☐ No

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within…

	YES	NO	unknown
<6-month travel time	_____	_____	_____
6 month—1 year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within…

	YES	NO	unknown
<1-year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

_____

_____

_____

_____

_____

_____

_____

FORM COMPLETED BY:

Matt Deemer 11-13-19

Print Name Date

Matt Deemer

Signature

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

Ground Water Contamination Susceptibility Assessment Survey Form

Complete **one** form for **each** ground water source (well, wellfield, spring) used in your water system (photocopy as necessary).

PART I: System Information

Well owner/manager: City of Shelton

Water system name: City of Shelton

County: Mason

Water system ID number: 78170N Source number: S02

Well depth: 745 feet

Source name: Well 1

WA well identification tag number: A H B - 6 4 6

☐ Well not tagged

Number of connections: 4749 Population served: 9975

Township: 20 N Range: 3 W

Section: 7 ¼ ¼ Section: SE / SW

Latitude/longitude (if available): 47.23019 / -123.1132

How was latitude/longitude determined?

____ Global positioning device ____ survey ____ topographical map
X other: Google Earth

*Please refer the instructions for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: 2 / 25 / 48 month/day/year

last reconstruction: ___/___/___ month/day/year

☐ Information unavailable

2) Well driller: N.C. Jannsen Drilling & MFG Company

☐ Well driller unknown

3) Type of well: ✓ Drilled: ☐ rotary ☐ bored ☑ cable (percussion) ☐ Dug

___ other: ☐ spring(s) ☐ lateral collector (Ranney)

☐ driven ☐ jetted ☐ other:_____

4) Well report available ☑ Yes (attach copy to form) ☐ No

5) Average pumping rate: 1500 (gallons/min)

Source of information Well Drillers Log

If not documented, how was pumping rate determined?_____

☐ Pumping rate unknown

6) Is this source treated?

If so, what type of treatment:

☑ disinfection ☐ filtration ☐ carbon filter ☐ air stripper ☐ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

Required by state

7) If source is chlorinated, is a chlorine residual maintained: ☑ Yes ☐ No

Residual level: .45 (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

☐ <20 ft ☐ 20-50ft ☐ 50-100ft ☐ 100-200ft ☑ >200ft

☐ information unavailable

2) Depth to ground water (static water level):

☐ <20ft ☐ 20-50ft ☐ 50-100ft ☑ >100ft

☐ flowing well/spring (artesian)

How was water level determined?

☑ well log ☐ other _____

☐ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure: Does not apply

_____ psi (pounds per square inch) **or**

_____ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ☐ Yes ☑ No

5) Wellhead elevation (height above mean sea level): ~~270~~ feet 216'

How was elevation determined? ☑ topographic map ☐ Drilling/Well Log ☐ altimeter

☑ other: Google Earth

☐ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

__X__ evidence of a confining layer in well log

_____ no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer**? ☑ Yes ☐ No

☑ information unavailable

7) Sanitary setback:

☐ < 100ft* ☐ 100-120ft ☑ 120-200 ft ☐ >200ft

* If less than 100ft, describe the site conditions:

_____

_____

_____

_____

8) Wellhead construction:

☑ wellhead enclosed in a wellhouse

☑ controlled access (describe): Wellhouse is surrounded by a chain link fence with locking gate

☐ other uses for wellhouse (describe): _____

_____

☐ no wellhead control

9) Surface seal:

☑ 18 ft

☐ <18 ft (no Department of Ecology approval)

☐ <18 ft (Approved by Ecology, include documentation)

☐ depth of seal unknown

☐ no surface seal

10) Annual rainfall (inches per year):

☐ <10 in/yr ☐ 10-25 in/yr ☑ >25 in/yr

PART V: Assessment of Water Quality

1) **Regional sources of risk to ground water**:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five-year ground water travel time. If you do not know if one of the following is present, mark the "unknown" space.

	6-month	1-year	5-year	unknown
No • likely pesticide application				
No • stormwater injection wells				
No • other injection wells				
No • abandoned ground water well				
No • landfills, dumps, disposal areas				
No • known hazardous materials clean-up site				
No • water system(s) with known quality problems				
No • population density >1 house/acre				
No • residences commonly have septic tanks				
No • Wastewater treatment lagoons				
No • sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6-month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)

If other recorded or potential sources of ground water contamination exist within the ten-year time of travel circular zone around your water supply, please describe:

PART IV: Mapping Your Ground Water Resource

The capture zone is deliniated in the Shelton WHPP using an analytical and a hydrogeologic mapping method. Refer to the WHPP for more info.

1) Annual volume of water pumped:_____ (gallons)

How was this determined?

☐ meter

☐ estimated: ☐ pumping rate (_____)

☐ pump capacity (_____)

☐ other:_____

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6-month ground water travel time: _____feet

1-year ground water travel time: _____feet

5-year ground water travel time: _____feet

10-year ground water travel time: _____feet

Information available on length of screened/open interval?

☐ Yes ☐ No

Length of screened/open interval: _____feet

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6- month time of travel boundary?

☐ Yes ☑ No (mark and identify on map) (besides shelton spring)

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6-month time of travel boundary?

☐ Yes ☑ No (mark and identify on map)

Comments:_____

_____

_____

_____

_____

2) **Source-specific water quality records**: For each type of test below, mark the row that applies to the sample results for this source. Consider all the sample results from the past 12 years. (MCLs are noted next to the specific test or listed in assistance package.)

A. **Nitrate:** (Nitrate MCL = 10 mg/l)

Results greater than MCL	_____
<2 mg/liter nitrate	0 ND
2-5 mg/liter nitrate	_____
<5 mg/liter nitrate	_____
Nitrate sampling records unavailable	_____

B. **VOCs:** (VOC detection level is 0.5 ug/l or 0.0005 mg/l)

Results greater than MCL or SAL	_____
VOCs detected at least once	_____
VOCs never detected	ND
VOC sampling records unavailable	_____

C. **EDB/DBCP:**

(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)

EDB/DBCP detected below MCL at least once	_____
EDB/DBCP detected above MCL at least once	_____
EDB/DBCP never detected	_____
EDB/DBCP tests required but not yet completed	_____
EDB/DBCP tests not required	X

D. **Other SOCs (Pesticides):**

Other SOCs detected (pesticides and other synthetic organic chemicals)	_____
Other SOC tests performed but none detected (list test methods in comments)	ND
Other SOC tests not performed	_____

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here: SOC Method 525.2

_____

_____

_____

E. **Bacterial contamination:**

Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records)? No

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source? NO

Source sampling records for bacteria unavailable _____

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10-year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

The capture zone is already mapped with analytical \ hydrogeologic modeling

☐ Yes ☐ No

Describe with references to map produced in Part IV:

_____

_____

_____

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

☐ Yes ☐ No

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

☐ Yes ☐ No

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

☐ Yes ☐ No

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within…

	YES	NO	unknown
<6-month travel time	_____	_____	_____
6 month—1 year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within…

	YES	NO	unknown
<1-year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

_____

_____

_____

_____

_____

_____

_____

FORM COMPLETED BY:

Matt Deemer 11-13-19

Print Name Date

Matt Deemer

Signature

Well No. 1

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG

No. Appl'n. #766
Cert. #1008A

Date April 10, 1948

Record by N. C. Jannsen

Source Driller record

Location: State of WASHINGTON

County Mason

Area

Map

SW¼ SE ¼ SW ¼ sec. 7 T. 20 N., R. 3 W

DIAGRAM OF SECTION

Drilling Co. N. C. Jannsen Drilling & Mfg. Co.

Address 9407 E. Marginal Way, Seattle

Method of Drilling Drilled Date 4/7-20-1948

Owner City of Shelton

Address Washington

Land surface, datum 210 ft. above below Top

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Primary well - used to take up peak [illegible]		

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

See log attached

20" 0 to 316

16" 0 to 297

12" 297 to 745

Deep well turbine 125 HP Diesel engine probably replaced

Pump test:

Dim: 745' x 16"

SWL: 150'

D.D. ~~no record~~ 27@1485gpm

Yield 1300 g.p.m.

Casing: 28" hole drilled 316'.

20" dia. steel casing from 0 to 316'.

16" dia. " " from 0 to 297'

12" dia. " " from 297 to 745'

Appl'n #766 Cert #1008A

(over)

Turn up

Sheet ____ of ____ sheets

WELL LOG.—Continued No. 1

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Depth forward		
	Perforations: All perfs horizontal from 515' to 725' - type slanting upward. Slots 1 to 3/8" wide 3" long. 5-6 slots in row alternate rows staggered 1" spacing between rows.		
	Health Dept s a/s 2250 services Avg use 2 MGPD		
	Analyses 7/27/65 from pipe from pump system: Cl = 3.4 ppm CaO_3 35 " Conduct 151 "		

S F. 7449-45 REMINGTON INC - 20 20 743-2

WELL LOG

CITY OF SHELTON

Well No. 1

(20/3W-7P)

MATERIAL	THICKNESS (feet)	DEPTH TO BOTTOM (feet)
		Tape corrected
Coarse sand & boulders	60	60
Blue clay	25	85
Hard packed gravel and sand	5	90
Gravel and sand	10	100
Blue clay and gravel	20	120
Gravel fine, hard packed	20	140
Loose small gravel	8	148
Brown clay	13	161
Gravel hard pack	3	164
Yellow clay	2	166
Gravel brown clay	9	175
Rock	5	180
Brown clay	20	200
Large gravel	10	210
Fine gravel	10	220
Gravel thinned mud	11	231
Brown gravel	12	243
Gravel thinned with mud	14	257
Gravel and sand streaked with clay	43	300
Sandy clay	20	320
Green sticky clay	8	328
Small water gravel	28	356
Brown clay	4	360
Pea gravel thinned with mud	25	385
Loose gravel	15	400
Sand-small gravel (dry)	9	409
Small gravel sand	31	440
Black sandy clay	10	450
Black coarse sand	20	480
Hard packed gravel	28	508
Hard brown rock	7	515
Rocky loose gravel	5	520
Small gravel	20	540
Coarse black sand, clay streaks	20	560
Coarse black sand ½" mud	23	583
Coarse black sand 1½" mud	67	650
Coarse sand 12" mud	20	670
Loose gravel ½" mud	20	690
Gravel thinned mud	23	713
Broken rock in mud	12	725
Sandy clay	20	745

Well 2

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

Ground Water Contamination
Susceptibility Assessment Survey Form

Complete **one** form for **each** ground water source (well, wellfield, spring) used in your water system (photocopy as necessary).

PART I: System Information

Well owner/manager: City of Shelton

Water system name: City of Shelton

County: Mason

Water system ID number: 78170N Source number: 503

Well depth: 708 feet

Source name: Well 2

WA well identification tag number: A H B - 6 4 2

☐ Well not tagged

Number of connections: 0 Population served: 0

Township: 20 N Range: 3 W

Section: 7 ¼ ¼ Section: NE/SW

Latitude/longitude (if available): 47.23468 / -123.11500

How was latitude/longitude determined?

_____Global positioning device_____survey_____topographical map
_x_other: Google Earth

*Please refer the instructions for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: 2/24/53 month/day/year

last reconstruction: ___/___/___ month/day/year

☐ Information unavailable

2) Well driller: Bach Drilling

☐ Well driller unknown

3) Type of well: ✓ Drilled: ☐ rotary ☐ bored ☑ cable (percussion) ☐ Dug

___ other: ☐ spring(s) ☐ lateral collector (Ranney)

☐ driven ☐ jetted ☐ other:_____

4) Well report available ☑ Yes (attach copy to form) ☑ No

5) Average pumping rate: 0 (gallons/min)

Source of information Well is not in use

If not documented, how was pumping rate determined?_____

☐ Pumping rate unknown

6) Is this source treated?

If so, what type of treatment:

☐ disinfection ☐ filtration ☐ carbon filter ☐ air stripper ☐ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

7) If source is chlorinated, is a chlorine residual maintained: ☐ Yes ☑ No

Residual level:_____ (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

☐ <20 ft ☐ 20-50ft ☒ 50-100ft ☐ 100-200ft ☑ >200ft

☐ information unavailable

2) Depth to ground water (static water level):

☐ <20ft ☐ 20-50ft ☐ 50-100ft ☑ >100ft

☐ flowing well/spring (artesian)

How was water level determined?

☑ well log ☐ other _____

☐ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

_____ psi (pounds per square inch) **or**

_____ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ☐ Yes ☑ No

5) Wellhead elevation (height above mean sea level): 220 feet

How was elevation determined? ☐ topographic map ☐ Drilling/Well Log ☐ altimeter

☑ other: Old camp plan + Google Earth

☐ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

X evidence of a confining layer in well log

_____ no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer**? ☑ Yes ☐ No

☑ information unavailable

7) Sanitary setback:

☐ < 100ft* ☐ 100-120ft ☑ 120-200 ft ☐ >200ft

* If less than 100ft, describe the site conditions:

8) Wellhead construction:

☑ wellhead enclosed in a wellhouse

☑ controlled access (describe): Cement block wellhouse that is completely fenced in.

☐ other uses for wellhouse (describe): _____

☐ no wellhead control

9) Surface seal:

☑ 18 ft

☐ <18 ft (no Department of Ecology approval)

☐ <18 ft (Approved by Ecology, include documentation)

☐ depth of seal unknown

☐ no surface seal

10) Annual rainfall (inches per year):

☐ <10 in/yr ☐ 10-25 in/yr ☑ >25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped:_____ (gallons)

How was this determined?

☐ meter

☐ estimated: ☐ pumping rate (_____)

☐ pump capacity (_____)

☐ other:_____

This well is not in use, so there is no CFR

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6-month ground water travel time: _____feet

1-year ground water travel time: _____feet

5-year ground water travel time: _____feet

10-year ground water travel time: _____feet

Information available on length of screened/open interval?

☐ Yes ☐ No

Length of screened/open interval: _____feet

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6- month time of travel boundary?

☐ Yes ☐No (mark and identify on map)

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6-month time of travel boundary?

☐ Yes ☐No (mark and identify on map)

Comments:_____

_____

_____

_____

_____

PART V: Assessment of Water Quality

1) **Regional sources of risk to ground water**:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five-year ground water travel time. If you do not know if one of the following is present, mark the "unknown" space.

	6-month	1-year	5-year	unknown
No • likely pesticide application				
No • stormwater injection wells				
No • other injection wells				
No • abandoned ground water well				
No • landfills, dumps, disposal areas				
No • known hazardous materials clean-up site				
No • water system(s) with known quality problems				
No • population density >1 house/acre				
No • residences commonly have septic tanks				
No • Wastewater treatment lagoons				
No • sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6-month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)

If other recorded or potential sources of ground water contamination exist within the ten-year time of travel circular zone around your water supply, please describe:

2) **Source-specific water quality records**: For each type of test below, mark the row that applies to the sample results for this source. Consider all the sample results from the past 12 years. (MCLs are noted next to the specific test or listed in assistance package.)

A. **Nitrate:** (Nitrate MCL = 10 mg/l)

Results greater than MCL	_____
<2 mg/liter nitrate	0 ND
2-5 mg/liter nitrate	_____
<5 mg/liter nitrate	_____
Nitrate sampling records unavailable	_____

B. **VOCs:** (VOC detection level is 0.5 ug/l or 0.0005 mg/l)

Results greater than MCL or SAL	_____
VOCs detected at least once	_____
VOCs never detected	ND
VOC sampling records unavailable	_____

C. **EDB/DBCP:**
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)

EDB/DBCP detected below MCL at least once	_____
EDB/DBCP detected above MCL at least once	_____
EDB/DBCP never detected	_____
EDB/DBCP tests required but not yet completed	_____
EDB/DBCP tests not required	X

D. **Other SOCs (Pesticides):**

Other SOCs detected (pesticides and other synthetic organic chemicals)	_____
Other SOC tests performed but none detected (list test methods in comments)	ND
Other SOC tests not performed	_____

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here: SOC Method 525.2

_____

_____

_____

E. **Bacterial contamination:**

Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records)? NO

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source? NO

Source sampling records for bacteria unavailable _____

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10-year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

This well is not in use, so there is no CFR

☐ Yes ☐ No

Describe with references to map produced in Part IV:

_____

_____

_____

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

☐ Yes ☐ No

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

☐ Yes ☐ No

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

☐ Yes ☐ No

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within…

	YES	NO	unknown
<6-month travel time	_____	_____	_____
6 month—1 year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within…

	YES	NO	unknown
<1-year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

_____

_____

_____

_____

_____

_____

_____

FORM COMPLETED BY:

MATT Deemer 11-13-19

Print Name Date

Matt Deemer

Signature

Well #2

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
AND DEVELOPMENT

WELL LOG

No. Appl. #3312
Cert. #2072-A

Date May 14, 1953

Record by Courtney Bach

Source Well driller's record

Location: State of WASHINGTON

County Mason

Area

Map

SW¼NE¼ SW¼ sec 7 T. 20 N., R. 3 W.

DIAGRAM OF SECTION

Drilling Co. Courtney Bach w/ Robinson & Roberts

Address Yakima, Wash.

Method of Drilling drilled Date May 13 1953

Owner City of Shelton (Well #3)

Address Shelton, Wash.

Land surface, datum 35 ft. above / below

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Alternate well. 2nd try to 791		

(Transcribe driller's terminology literally but paraphrase as necessary, in parentheses. If material water-bearing, so state and record static level if reported. Give depths in feet below land-surface datum unless otherwise indicated. Correlate with stratigraphic column, if feasible. Following log of materials, list all casings, perforations, screens, etc.)

see attached sheet

Pump Test:

Dim: 708' x 12" (plugged @ 295')

SWL: 115.1' 5-13-53

Dd: 25'

Yield: 905 g.p.m.

Casing: 12" dia. from 0' to 295'; 8" dia. from 295' to 682'

Perforations:

16 ¼ x 2" from 205' to 278';
515' to 565';
630' to 637';
663' to 675'

Pump: 5 stage, Worthington

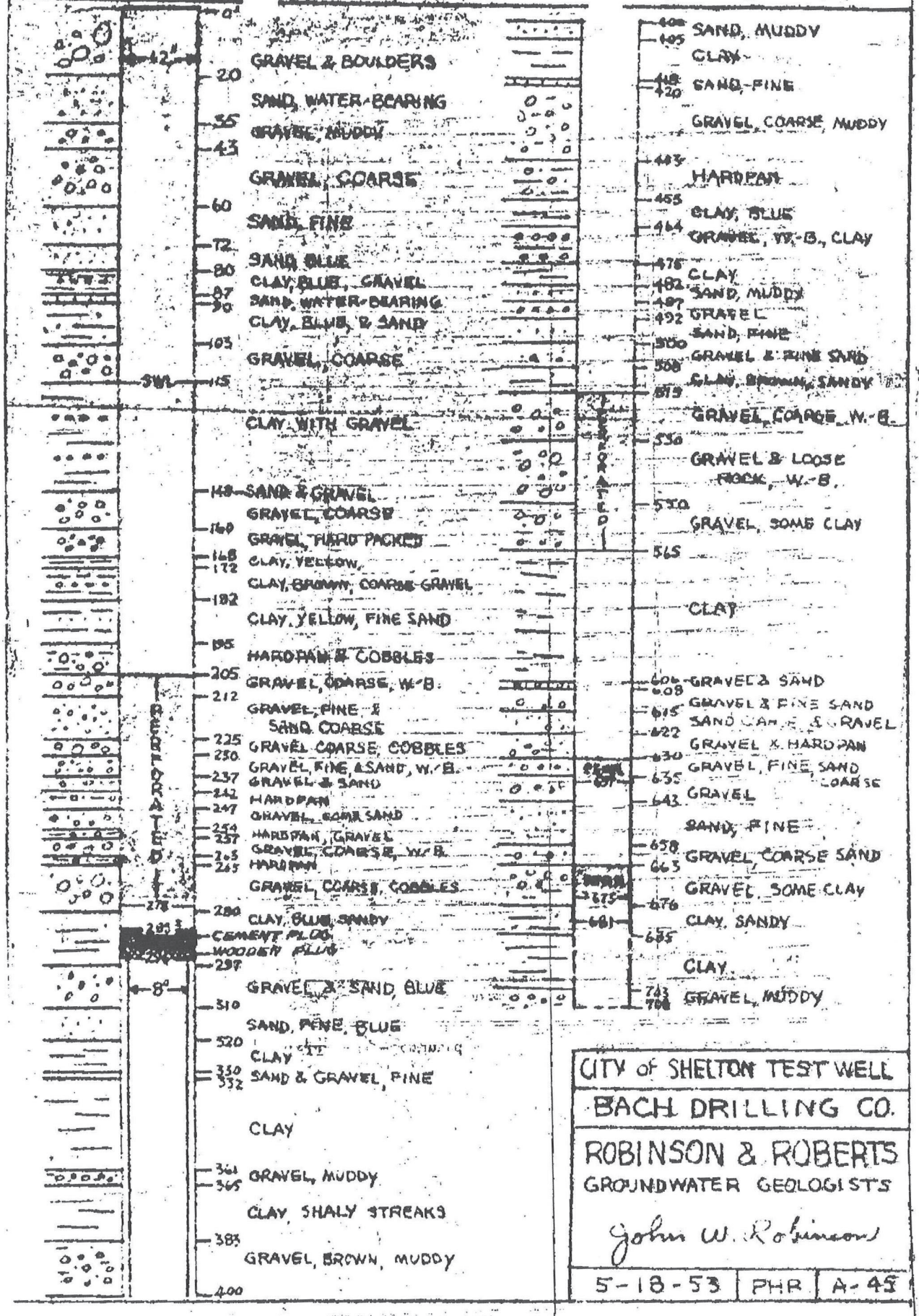
Motor: 60 hp

Cert. 1200 gpm
Dept. 1314 gpm

Turn up fast initial recovery, slow remainder

Sheet ___ of ___ sheets

DRILLER'S LOG



CITY of SHELTON TEST WELL

BACH DRILLING CO.

ROBINSON & ROBERTS
GROUNDWATER GEOLOGISTS

John W. Robinson

5-18-53	PHR	A-45

Shelton Well #2
Cert. # 2072-A

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

Ground Water Contamination
Susceptibility Assessment Survey Form

Complete **one** form for **each** ground water source (well, wellfield, spring) used in your water system (photocopy as necessary).

PART I: System Information

Well owner/manager: City of Shelton

Water system name: City of Shelton

County: Mason

Water system ID number: 78170N Source number: 504

Well depth: 278 feet

Source name: Well 3

WA well identification tag number: A H B - 6 4 5

☐ Well not tagged

Number of connections: 4749 Population served: 9975

Township: 20 N Range: 3 W

Section: 7 ¼ ¼ Section: SE/SW

Latitude/longitude (if available): 47.23441 / -123.11478

How was latitude/longitude determined?

_____Global positioning device_____survey_____topographical map
_x_other: Google Earth

*Please refer the instructions for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: 1 / 6 / 93 month/day/year

last reconstruction: 8 / 21 / 17 month/day/year

☐ Information unavailable

2) Well driller: Ramlo Well Drilling

☐ Well driller unknown

3) Type of well: ✓ Drilled: ☐ rotary ☐ bored ☑ cable (percussion) ☐ Dug

___ other: ☐ spring(s) ☐ lateral collector (Ranney)

☐ driven ☐ jetted ☐ other: _____

4) Well report available ☑ Yes (attach copy to form) ☐ No

5) Average pumping rate: ~~1500~~ 900 (gallons/min)

Source of information ~~Well Log~~ well log pumping test

If not documented, how was pumping rate determined? _____

☐ Pumping rate unknown

6) Is this source treated?

If so, what type of treatment:

☑ disinfection ☐ filtration ☐ carbon filter ☐ air stripper ☐ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

Required by state

7) If source is chlorinated, is a chlorine residual maintained: ☑ Yes ☐ No

Residual level: .45 (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

☐ <20 ft ☐ 20-50ft ☐ 50-100ft ☒ 100-200ft ☑ >200ft

☐ information unavailable

2) Depth to ground water (static water level):

☐ <20ft ☐ 20-50ft ☒ 50-100ft ☑ >100ft

☐ flowing well/spring (artesian)

How was water level determined?

☑ well log ☐ other _____

☐ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

_____ psi (pounds per square inch) **or**

_____feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ☐ Yes ☐ No

5) Wellhead elevation (height above mean sea level): 220 feet

How was elevation determined? ☑ topographic map ☐ Drilling/Well Log ☐ altimeter

☐ other:_____

☐ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

__X__ evidence of a confining layer in well log

_____ no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer**? ☑ Yes ☐ No

☑ information unavailable

7) Sanitary setback:

☐ < 100ft* ☐ 100-120ft ☑ 120-200 ft ☐ >200ft

* If less than 100ft, describe the site conditions:

_____

_____

_____

_____

8) Wellhead construction:

☑ wellhead enclosed in a wellhouse

☑ controlled access (describe): Completely enclosed in chain link fence with locked gate

☐ other uses for wellhouse (describe): _____

_____

☐ no wellhead control

9) Surface seal:

☐ ≥18 ft

☐ <18 ft (no Department of Ecology approval)

☑ <18 ft (Approved by Ecology, include documentation)

☐ depth of seal unknown

☐ no surface seal

10) Annual rainfall (inches per year):

☐ <10 in/yr ☐ 10-25 in/yr ☑ >25 in/yr

The capture zone is delineated in the Shelton WHPP using an hydrogeologic mapping method. Refer to the WHPP for more info.

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped:_____ (gallons)

How was this determined?

☐ meter

☐ estimated: ☐ pumping rate (_____)
☐ pump capacity (_____)

☐ other:_____

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6-month ground water travel time: _____feet

1-year ground water travel time: _____feet

5-year ground water travel time: _____feet

10-year ground water travel time: _____feet

Information available on length of screened/open interval?

☐ Yes ☐ No

Length of screened/open interval: _____feet

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6- month time of travel boundary?

☐ Yes ☑ No (mark and identify on map)

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6-month time of travel boundary?

☐ Yes ☑ No (mark and identify on map)

Comments:_____

_____

_____

_____

_____

PART V: Assessment of Water Quality

1) **Regional sources of risk to ground water**:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five-year ground water travel time. If you do not know if one of the following is present, mark the "unknown" space.

	6-month	1-year	5-year	unknown
No • likely pesticide application				
No • stormwater injection wells				
No • other injection wells				
No • abandoned ground water well				
No • landfills, dumps, disposal areas				
No • known hazardous materials clean-up site				
No • water system(s) with known quality problems				
No • population density >1 house/acre				
No • residences commonly have septic tanks				
No • Wastewater treatment lagoons				
No • sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6-month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)

If other recorded or potential sources of ground water contamination exist within the ten-year time of travel circular zone around your water supply, please describe:

2) **Source-specific water quality records**: For each type of test below, mark the row that applies to the sample results for this source. Consider all the sample results from the past 12 years. (MCLs are noted next to the specific test or listed in assistance package.)

A. **Nitrate:** (Nitrate MCL = 10 mg/l)

Results greater than MCL	_____
<2 mg/liter nitrate	0 ND
2-5 mg/liter nitrate	_____
<5 mg/liter nitrate	_____
Nitrate sampling records unavailable	_____

B. **VOCs:** (VOC detection level is 0.5 ug/l or 0.0005 mg/l)

Results greater than MCL or SAL	_____
VOCs detected at least once	_____
VOCs never detected	ND
VOC sampling records unavailable	_____

C. **EDB/DBCP:**
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)

EDB/DBCP detected below MCL at least once	_____
EDB/DBCP detected above MCL at least once	_____
EDB/DBCP never detected	_____
EDB/DBCP tests required but not yet completed	_____
EDB/DBCP tests not required	X

D. **Other SOCs (Pesticides):**

Other SOCs detected	
(pesticides and other synthetic organic chemicals)	_____
Other SOC tests performed but none detected	
(list test methods in comments)	ND
Other SOC tests not performed	_____

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here: SOC Method 525.2

_____

_____

_____

E. **Bacterial contamination:**

Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records)? NO

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source? NO

Source sampling records for bacteria unavailable _____

The capture zone is already mapped with hydrogeologic modeling

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10-year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

❑ Yes ❑ No

Describe with references to map produced in Part IV:

_____

_____

_____

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

❑ Yes ❑ No

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

❑ Yes ❑ No

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

❑ Yes ❑ No

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within…

	YES	NO	unknown
<6-month travel time	_____	_____	_____
6 month—1 year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within…

	YES	NO	unknown
<1-year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

_____

_____

_____

_____

_____

_____

_____

FORM COMPLETED BY:

Matt Deemer 11-13-19

Print Name Date

Matt Deemer

Signature

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Permit Application No. G225241 (HW)
Permit No. per CRED# 01312

(1) OWNER: Name City of Shelton Address MT. View Addn ← as stated on orig. application

(2) LOCATION OF WELL: County Mason NE ¼ SW ¼ Sec. 7 T. 20 N., R. 4E W.M. 3W (HW)

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 16 inches.
Drilled 298 ft. Depth of completed well 278 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 16 " Diam. from 0 ft. to 278 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☐
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☒ No ☐
Manufacturer's Name Johnson
Type 14 Model No. 259
Diam. 100 Slot size 60 from 273 ft. to 228 ft.
Diam. 100 Slot size 100 from 225 ft. to 210 ft.

Gravel packed: Yes ☐ No ☐ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 69 ft.
Material used in seal Cement grout
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level
Static level 110 ft. below top of well Date 2-26-93
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Ramlo
Yield: 900 gal./min. with 24 ft. drawdown after 24 hrs.

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
2-25-93					

Date of test
Bailer test 75 gal./min. with 1 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Black top soil	0	2
Brown gravel	2	8
Brown gravel with binder	8	17
Brown wet gravel	17	41
Brown silt	41	42
BRown hardpan	42	157
Brown sand gravel some water	57	66
GRay silt	66	107
Course gray sand and gravel	107	112
Gray clay with gravel	112	130
Gray gravel with binder	130	133
Gray clay with peat and wood	133	150
Brown hardpan	150	156
Gray hardpan	156	162
Redish brown hardpan	162	192
Dark Brown water bearing sand and gravel	192	194
Brown silt with large gravel	194	210
Brown water bearing course sand to large gravel	210	290
Gray silt	290	291
Gray sand and gravel silt binder	291	294
Gray water bearing sand and gravel	294	295
Gray hardpan	295	298

Work started 1-5 1993 Completed 2-2 1993

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Elmer J. Colglazier (Person, firm, or corporation) (Type or print)
Address 4703 Christensen Mtn Rd Eatonville WA 98328
[Signed] Elmer J. Colglazier (Well Driller)
License No. 0078 Date 3-4 1993

(USE ADDITIONAL SHEETS IF NECESSARY)

4

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

Ground Water Contamination
Susceptibility Assessment Survey Form

Complete **one** form for **each** ground water source (well, wellfield, spring) used in your water system (photocopy as necessary).

PART I: System Information

Well owner/manager: City Of Shelton

Water system name: City Of Shelton

County: Mason

Water system ID number: 78170N Source number: 505

Well depth: 284 feet

Source name: Well 4

WA well identification tag number: A E C - 9 4 2

☐ Well not tagged

Number of connections: 4749 Population served: 9975

Township: 20N Range: 3 W

Section: 7 ¼ ¼ Section: NE/SW

Latitude/longitude (if available): 47.23464 / -123.11488

How was latitude/longitude determined?

_____ Global positioning device _____ survey _____ topographical map
✓ other: Google Earth

*Please refer the instructions for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: 8 / 23 / 05 month/day/year

last reconstruction: ___/___/___ month/day/year

☐ Information unavailable

2) Well driller: Charon Drilling Inc

☐ Well driller unknown

3) Type of well: ✓ Drilled: ☐ rotary ☐ bored ☑ cable (percussion) ☐ Dug

___ other: ☐ spring(s) ☐ lateral collector (Ranney)

☐ driven ☐ jetted ☐ other:

4) Well report available ☑ Yes (attach copy to form) ☐ No

5) Average pumping rate: 1200 (gallons/min)

Source of information Old Comp Plan

If not documented, how was pumping rate determined?

☐ Pumping rate unknown

6) Is this source treated?

If so, what type of treatment:

☑ disinfection ☐ filtration ☐ carbon filter ☐ air stripper ☐ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

Required by state

7) If source is chlorinated, is a chlorine residual maintained: ☑ Yes ☐ No

Residual level: .45 (At the point closest to the source.)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

☐ <20 ft ☐ 20-50ft ☐ 50-100ft ☑ 100-200ft ☐ >200ft

☐ information unavailable

2) Depth to ground water (static water level):

☐ <20ft ☐ 20-50ft ☐ 50-100ft ☑ >100ft

☐ flowing well/spring (artesian)

How was water level determined?

☑ well log ☐ other _____

☐ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

_____ psi (pounds per square inch) **or**

_____feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ☐ Yes ☑ No

5) Wellhead elevation (height above mean sea level): ~~289~~ 222 feet

How was elevation determined? ☐ topographic map ~~☑~~ Drilling/Well Log ☐ altimeter

☑ other: Google Earth

☐ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

__X__ evidence of a confining layer in well log

_____ no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer**? ☑ Yes ☐ No

☐ information unavailable

PART IV: Mapping Your Ground Water Resource

The capture zone is delineated in the Shelton WHPP using a hydrogeologic mapping method. Refer to the WHPP for more info

1) Annual volume of water pumped:_____ (gallons)

How was this determined?

❑ meter

❑ estimated: ❑ pumping rate (_____)

❑ pump capacity (_____)

❑ other:_____

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6-month ground water travel time: _____feet

1-year ground water travel time: _____feet

5-year ground water travel time: _____feet

10-year ground water travel time: _____feet

Information available on length of screened/open interval?

❑ Yes ❑ No

Length of screened/open interval: _____feet

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6- month time of travel boundary?

❑ Yes ☑ No (mark and identify on map)

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6-month time of travel boundary?

❑ Yes ☑ No (mark and identify on map)

Comments:_____

_____

_____

_____

_____

7) Sanitary setback:

☐ < 100ft* ☐ 100-120ft ☑ 120-200 ft ☐ >200ft

* If less than 100ft, describe the site conditions:

_____

_____

_____

_____

8) Wellhead construction:

☑ wellhead enclosed in a wellhouse

☑ controlled access (describe): Completely enclosed in chain link fence with locked gate

☐ other uses for wellhouse (describe): _____

_____

☐ no wellhead control

9) Surface seal:

☐ ≥18 ft

☐ <18 ft (no Department of Ecology approval)

☑ <18 ft (Approved by Ecology, include documentation)

☐ depth of seal unknown

☐ no surface seal

10) Annual rainfall (inches per year):

☐ <10 in/yr ☐ 10-25 in/yr ☑ >25 in/yr

PART V: Assessment of Water Quality

1) **Regional sources of risk to ground water**:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five-year ground water travel time. If you do not know if one of the following is present, mark the "unknown" space.

	6-month	1-year	5-year	unknown
NO • likely pesticide application				
NO • stormwater injection wells				
NO • other injection wells				
NO • abandoned ground water well				
NO • landfills, dumps, disposal areas				
NO • known hazardous materials clean-up site				
NO • water system(s) with known quality problems				
NO • population density >1 house/acre				
NO • residences commonly have septic tanks				
NO • Wastewater treatment lagoons				
NO • sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6-month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.)

If other recorded or potential sources of ground water contamination exist within the ten-year time of travel circular zone around your water supply, please describe:

2) **Source-specific water quality records**: For each type of test below, mark the row that applies to the sample results for this source. Consider all the sample results from the past 12 years. (MCLs are noted next to the specific test or listed in assistance package.)

A. **Nitrate:** (Nitrate MCL = 10 mg/l)

Results greater than MCL	_____
<2 mg/liter nitrate	0 ND
2-5 mg/liter nitrate	_____
<5 mg/liter nitrate	_____
Nitrate sampling records unavailable	_____

B. **VOCs:** (VOC detection level is 0.5 ug/l or 0.0005 mg/l)

Results greater than MCL or SAL	_____
VOCs detected at least once	_____
VOCs never detected	ND
VOC sampling records unavailable	_____

C. **EDB/DBCP:**

(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)

EDB/DBCP detected below MCL at least once	_____
EDB/DBCP detected above MCL at least once	_____
EDB/DBCP never detected	_____
EDB/DBCP tests required but not yet completed	_____
EDB/DBCP tests not required	X

D. **Other SOCs (Pesticides):**

Other SOCs detected	
(pesticides and other synthetic organic chemicals)	_____
Other SOC tests performed but none detected	
(list test methods in comments)	ND
Other SOC tests not performed	_____

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here: SOC Method 525.2

_____

_____

_____

E. **Bacterial contamination:**

Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records)? NO

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source? NO

Source sampling records for bacteria unavailable _____

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

The capture zone is already mapped with hydrogeologic modeling

1) Is there evidence of obvious hydrologic boundaries within the 10-year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?)

☐ Yes ☐ No

Describe with references to map produced in Part IV:

_____

_____

_____

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

☐ Yes ☐ No

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

☐ Yes ☐ No

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

☐ Yes ☐ No

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within…

	YES	NO	unknown
<6-month travel time	_____	_____	_____
6 month—1 year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within…

	YES	NO	unknown
<1-year travel time	_____	_____	_____
1—5 year travel time	_____	_____	_____
5—10 year travel time	_____	_____	_____

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

_____

_____

_____

_____

_____

_____

_____

FORM COMPLETED BY:

Matt Deemer 11-13-19

Print Name Date

Matt Deemer

Signature

Original with
Department of Ecology
Second Copy - Owner's Copy
Third Copy - Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Notice of Intent W155911

UNIQUE WELL I.D. # AEC 942

Water Right Permit No. 3312

(1) **OWNER:** Name City of Shelton Address 525 West Cota St. Shelton, WA 98584

(2) **LOCATION OF WELL:** County Mason NE 1/4 SW 1/4 Sec 7 T 20 N.R. 3W WM

(2a) **STREET ADDRESS OF WELL:** (or nearest address) _____

TAX PARCEL NO.: _____

(3) **PROPOSED USE:** ☐ Domestic ☐ Industrial ☒ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐ DeWater

(4) **TYPE OF WORK:** Owner's number of well (if more than one) new well #2

☒ New Well ☐ Deepened ☐ Reconditioned ☐ Decommission

Method: ☐ Dug ☒ Cable ☐ Rotary ☐ Bored ☐ Driven ☐ Jetted

(5) **DIMENSIONS:** Diameter of well 16" inches

Drilled 287 feet. Depth of completed well 284 ft.

(6) **CONSTRUCTION DETAILS**

Casing Installed:

☒ Welded 16" Diam. from +2 ft. to 200 ft.

☒ Liner installed 14" Diam. from 147.4 ft. to 197.4 ft.

☐ Threaded _____ Diam. from _____ ft. to _____ ft.

Perforations: ☐ Yes ☒ No

Type of perforator used _____

SIZE of perforations _____ in. by _____ in.

_____ perforations from _____ ft. to _____ ft.

Screens: ☒ Yes ☐ No ☐ K-Pac Location na

Manufacturer's Name Alloy

Type 304 SS Model No. _____

Diam. 14" PS Slot Size 50 slot from 197 ft. to 207 ft.

Diam. 14" PS Slot Size 40 from 334 ft. to 354 ft.

264 274

Gravel/Filter packed: ☒ Yes ☐ No ☐ Size of gravel/sand 4X8

Material placed from _____ ft. to _____ ft.

Surface seal: ☒ Yes ☐ No To what depth? 20 ft.

Material used in seal _____

Did any strata contain unusable water? ☐ Yes ☒ No

Type of water? _____ Depth of strata _____

Method of sealing strata off _____

(7) **PUMP:** Manufacturer's Name _____

Type: _____ H.P. _____

(8) **WATER LEVELS:** Land-surface elevation above mean sea level 289 ft.

Static level 112.3 ft. below top of well Date _____

Artesian pressure _____ lbs. per square inch Date _____

Artesian water is controlled by _____ (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level

Was a pump test made? ☒ Yes ☐ No If yes, by whom? CDI & R,N,&S

Yield: 433 gal./min. with 13.2 ft. drawdown after .5 hrs.

Yield: 805 gal./min. with 25.35 ft. drawdown after .5 hrs.

Yield: 1,000 gal./min. with 61 ft. drawdown after 24 hrs.

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
1 min	125				
10 min	122½				
60	119				

Date of test 8/17&18/2005

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.

Airtest _____ gal./min. with _____ ft. drawdown after _____ hrs.

Artesian flow _____ g.p.m. Date _____

Temperature of water 48.1°F Was a chemical analysis made? ☒ Yes ☐ No

(10) **WELL LOG or DECOMMISSIONING PROCEDURE DESCRIPTION**

Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information. Indicate all water encountered.

MATERIAL	FROM	TO
BROWN sand + gravel	0	8
Brown silty clay w/ sand & gravel	8	20
Brown silty sand w/ gravel	20	56
Silt and clay	56	59
Light brown sand w/ small gravel	59	64
Gray silty sand w/ gravel	64	67.5
Gray silty sand	67.5	80
Gray silty sand w/ clay	80	101
Black sand + gravel	101	108
Gray silty gravel	118	112
Gray silty clay w/ wood & peat	112	148
Dirty sand + gravel - w.b.	148	150
Cemented sand & gravel - w.b	150	160
Gray cemented sand & gravel - w.b	160	164
Brown silty clay w/ sand + gravel	164	172
Brown clay bound sand + gravel w.b	172	196
Brown clay bound sand + gravel	196	215
Brown silty clay w/ sand + gravel w.b.	215	230
Brown silty sand + gravel - w.b	230	245
Brown silty sand w/ gravel, clay w.b	245	251
Brown silty sand + gravel - w.b	251	268
Brown clay bound silty sand w.b	268	287

Work Started 6/27/05 Completed 8/23/05

WELL CONSTRUCTION CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Type or Print Name Dave Charon License No. 1190 (Licensed Driller/Engineer)

Trainee Name na License No. na

Drilling Company Charon Drilling, Inc.

(Signed) Dave Charon License No. 1190 (Licensed Driller/Engineer)

Address 12719-224 St E Graham, WA 98338

Contractor's Registration No CHARODI133NF Date 8/31/05

(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (360) 407-6600. The TDD number is (360) 407-6006.

ECY 050-1-20 (11/98)

1840-003B Shelton WHPA
784 E Island Lake Dr
Shelton, WA 98584

Inquiry Number: 5712009.2s
July 11, 2019

The EDR Radius Map™ Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

784 E ISLAND LAKE DR
SHELTON, WA 98584

COORDINATES

Latitude (North):	47.2488130 - 47° 14' 55.72''
Longitude (West):	123.1212250 - 123° 7' 16.41''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	490826.4
UTM Y (Meters):	5232603.0
Elevation:	242 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6005141 SHELTON, WA
Version Date:	2014
Northeast Map:	6005151 UNION, WA
Version Date:	2014
Southwest Map:	6005143 SHELTON VALLEY, WA
Version Date:	2014
Northwest Map:	6005145 SKOKOMISH VALLEY, WA
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150817, 20150728
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
784 E ISLAND LAKE DR
SHELTON, WA 98584

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1		784 E ISLAND LAKE DR	WA ASBESTOS		TP
2	CHERRY PARK WATER SY	E ISLAND LAKE RD	FINDS, ECHO	Higher	2758, 0.522, SW
3	WOODLAND MANOR WATER	E WOODLAND DR	FINDS, ECHO	Higher	2960, 0.561, SSW
4		2201 E. ISLAND LK. D	WA ASBESTOS	Lower	2993, 0.567, ESE
5	LEES & SONS AUTO SER	71 E BOARDWALK RD	EDR Hist Auto	Higher	3150, 0.597, SW
6	SHELTON SPRINGS		WA ALLSITES	Lower	3282, 0.622, South
A7	SSD - SHELTON HIGH S	3737 N SHELTON SPRIN	CA HAZNET	Lower	3782, 0.716, SSW
A8		3737 SHELTON SPRINGS	WA ASBESTOS	Lower	3782, 0.716, SSW
A9	SHELTON HIGH SCHOOL	3737 N SHELTON SPRIN	WA ALLSITES, WA NPDES	Lower	3782, 0.716, SSW
B10	PAY MORE RECYCLE & S	2278 E BROCKDALE RD	WA SWRCY, WA ALLSITES, WA SPILLS, WA NPDES	Lower	3798, 0.719, East
B11	WILSON RECYCLING	2278 E. BROCKDALE RD	WA RGA LF	Lower	3798, 0.719, East
B12	WILSON RECYCLING	2278 E BROCKDALE RD	WA SWF/LF	Lower	3798, 0.719, East
B13	WILSON RECYCLING	2278 E BROCKDALE RD	FINDS, ECHO	Lower	3798, 0.719, East
B14	WILSON RECYCLING	2278 E BROCKDALE RD	ECHO	Lower	3798, 0.719, East
15		310 E. BLEVINS RD.	WA HIST CDL	Higher	4182, 0.792, West
C16	MASON COUNTY TRANSPO	3740 SHELTON SPGS RD	ICIS, FINDS, ECHO	Lower	4767, 0.903, South
C17	MASON COUNTY TRANSPO	3740 SHELTON SPRINGS	WA RGA LUST	Lower	4767, 0.903, South
C18	MASON COUNTY TRANSPO	3740 SHELTON SPRINGS	WA RGA LUST	Lower	4767, 0.903, South
C19	MASON COUNTY TRANSPO	3740 SHELTON SPRINGS	WA CSCSL, WA LUST, WA ALLSITES, RCRA NonGen / NLR,...	Lower	4767, 0.903, South
C20	MASON COUNTY TRANSPO	3740 SHELTON SPRINGS	WA RGA LUST	Lower	4767, 0.903, South
C21	MASON COUNTY TRANSPO	3740 SHELTON SPRINGS	WA RGA HWS	Lower	4767, 0.903, South
C22	MASON COUNTY TRANSPO	3740 SHELTON SPRINGS	WA UST, WA Financial Assurance, WA MANIFEST	Lower	4767, 0.903, South
23	HIDDEN HAVEN MOBILE	1700 E SHELTON SPRIN	FINDS, ECHO	Higher	4926, 0.933, WSW
D24	AIRPORT GROCERY &	11900 HWY 101	WA RGA LUST	Higher	5010, 0.949, SW
D25	AIRPORT GROCERY STOR	11900 HWY 101	FINDS	Higher	5010, 0.949, SW
D26	AIRPORT GROCERY STOR	11900 HWY 101	WA RGA HWS	Higher	5010, 0.949, SW
D27	AIRPORT GROCERY	11900 HWY 101	WA LUST, WA UST, WA VCP, WA ICR, WA ALLSITES, WA...	Higher	5010, 0.949, SW
D28	AIRPORT GROCERY	11900 N US HIGHWAY 1	EDR Hist Auto	Higher	5010, 0.949, SW
D29	AIRPORT GROCERY & DE	11900 HWY 101	WA RGA LUST	Higher	5010, 0.949, SW
D30	AIRPORT GROCERY	11900 HWY 101	WA RGA LUST	Higher	5010, 0.949, SW
D31	AIRPORT GROCERY DELI	11900 HIGHWAY 101	WA RGA LUST	Higher	5010, 0.949, SW
32	TRACTOR SUPPLY SHELT	12001 N US 101	WA ALLSITES	Higher	5018, 0.950, SW
33		11840 HWY 101	WA ASBESTOS	Higher	5034, 0.953, SW
E34	HIAWATHA INC	681 E JOHNS PRAIRIE	WA RGA LUST	Lower	5085, 0.963, SE
E35	HIAWATHA INC	681 E JOHNS PRAIRIE	WA LUST, WA UST, WA ALLSITES, WA CSCSL NFA, FINDS	Lower	5085, 0.963, SE
F36	OLYMPIC AIR INC	11771 N HWY 101	FINDS	Higher	5110, 0.968, SW
F37	OLYMPIC AIR INC	11771 N HWY 101	WA UST, WA ALLSITES	Higher	5110, 0.968, SW
38	JIM'S AUTOMOTIVE, IN	2911 E BROCKDALE RD	WA SWF/LF	Lower	5257, 0.996, NE
39	OAK PARK WATER SYSTE	E OAK PARK WAY	FINDS, ECHO	Lower	5376, 1.018, ENE

MAPPED SITES SUMMARY

Target Property Address:
784 E ISLAND LAKE DR
SHELTON, WA 98584

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G40	PORT OF SHELTON ALL	21 W SANDERSON WAY	ICIS, FINDS, ECHO	Higher	5383, 1.020, West
G41	PORT OF SHELTON	21 W SANDERSON WAY	WA ALLSITES	Higher	5383, 1.020, West
42	PRIVATE RESIDENCE	855 E JOHNS PRAIRIE	WA SPILLS	Lower	5408, 1.024, ESE
G43	WA317943733 - P U D	43 W. SANDERSON WAY	FINDS	Higher	5448, 1.032, West
44	SHELTON FLIGHT INC	HWY 101 SANDERSON FI	WA UST, WA ALLSITES, FINDS	Higher	5460, 1.034, SSW
45	BPA RIGHT OF WAY PAI	200 YDS NW OF E 1892	RCRA NonGen / NLR, FINDS, ECHO	Lower	5482, 1.038, SE
H46	SHELTON PORT	400 W ENTERPRISE RD	FINDS, ECHO	Higher	5508, 1.043, WSW
H47	WA317947476 - TRUFAB	410 W ENTERPRISE RD	FINDS, ECHO	Higher	5525, 1.046, WSW
H48	OLYMPIC FABRICATION	410 W ENTERPRISE RD	RCRA NonGen / NLR	Higher	5525, 1.046, WSW
H49	OLYMPIC FABRICATION	410 W ENTERPRISE RD	WA ALLSITES	Higher	5525, 1.046, WSW
50	GREEN CROW SHELTON L	12721 US HWY 101	FINDS	Higher	5528, 1.047, West
I51	SANDERSON INDUSTRIAL	430 W ENTERPRISE RD	WA ALLSITES, RCRA NonGen / NLR, FINDS, ECHO, WA...	Higher	5682, 1.076, WSW
I52	PORT OF SHELTON	430 W. ENTERPRISE RD	PADS	Higher	5682, 1.076, WSW
J53	BARNES MACHINE INC	790 E JOHNS PRAIRIE	WA VCP, WA ALLSITES, WA CSCSL NFA, RCRA NonGen /...	Lower	5788, 1.096, ESE
J54	MASON COUNTY TRANSPO	790 E JOHNS PRAIRIE	FINDS	Lower	5788, 1.096, ESE
55	TACOMA PUBLIC UTILIT	N 21451 HWY 101	RCRA-CESQG, WA ALLSITES, WA MANIFEST	Higher	5813, 1.101, West
56	TECHWOOD	121 W ENTERPISE RD A	FINDS	Higher	5841, 1.106, WSW
K57	ROSAND DAM		WA ALLSITES	Lower	5842, 1.106, East
K58	ROSAND DAM		FINDS	Lower	5868, 1.111, East
I59	VACANT	450 W. ENTERPRISE RD	PADS	Higher	5872, 1.112, SW
60	PORT OF SHELTON ALL	SANDERSON FIELD	WA HSL, WA CSCSL, WA ALLSITES	Higher	5873, 1.112, WSW
L61	SHELTON WATER RECLAM	10891 SR101	WA ALLSITES, WA NPDES	Higher	5952, 1.127, SSW
L62	SHELTON WATER RECLAM	10891 SR101	FINDS	Higher	5952, 1.127, SSW
M63	TRANSMISSIONS PLUS A	31 E VANCE CT	FINDS	Lower	5965, 1.130, ESE
M64	TRANSMISSIONS PLUS A	31 E VANCE CT	WA ALLSITES	Lower	5965, 1.130, ESE
N65	AERO CONTROLS INC SA	W 231 SANDERSON WAY	RCRA-LQG, WA ALLSITES	Higher	5990, 1.134, West
O66	WAL MART STORE 2121	100 E WALLACE KNEELA	RCRA-SQG, WA ALLSITES, FINDS, ECHO, WA MANIFEST	Lower	6018, 1.140, South
O67		100 WALLACE KNEELAND	WA SPILLS	Lower	6018, 1.140, South
O68	WAL MART TIRE & LUBE	100 E WALLACE KNEELA	FINDS	Lower	6018, 1.140, South
N69	SUNRISE FIBERGLASS E	W 171 SANDERSON WAY	WA ALLSITES, RCRA NonGen / NLR	Higher	6042, 1.144, West
P70	REPAIRS PLUS	E 1022 JOHNS PRAIRIE	FINDS, ECHO	Higher	6053, 1.146, ESE
P71	REPAIRS PLUS	E 1022 JOHNS PRAIRIE	RCRA NonGen / NLR, WA MANIFEST	Higher	6058, 1.147, ESE
P72	REPAIRS PLUS	1022 E JOHNS PRAIRIE	WA ALLSITES	Higher	6090, 1.153, ESE
N73	OLYMPIC TOOL ENGINEE	W 21 SANDERSON WAY	WA ALLSITES, RCRA NonGen / NLR	Higher	6103, 1.156, West
Q74	DAYTON AIRPORT RD WA	DAYTON AIRPORT SHELT	WA ALLSITES	Higher	6155, 1.166, West
75	GRADENS SHELTON CHEV	701 E WALLACE KNEELA	WA ALLSITES, FINDS	Lower	6195, 1.173, South
Q76		HWY 102	WA SPILLS	Higher	6218, 1.178, WNW
Q77	DAYTON AIRPORT RD WA	DAYTON AIRPORT, SHEL	FINDS, ECHO	Higher	6253, 1.184, West
Q78		OFF HIGH 101	WA SPILLS	Higher	6259, 1.185, West

MAPPED SITES SUMMARY

Target Property Address:
784 E ISLAND LAKE DR
SHELTON, WA 98584

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
R79	SHELTON BULK PLANT	150 W SANDERSON WAY	WA Financial Assurance	Higher	6282, 1.190, West
R80	TOSCO CORPORATION	150 W SANDERSON	WA RGA LUST	Higher	6282, 1.190, West
R81	TOSCO #0731	150 W. SANDERSON	WA ICR	Higher	6282, 1.190, West
R82	DON SMALL & SONS OIL	150 W SANDERSON WAY	WA UST, FINDS	Higher	6282, 1.190, West
R83	DON SMALL & SONS OIL	150 W SANDERSON WY	WA LUST, WA VCP, WA ALLSITES, WA CSCSL NFA	Higher	6282, 1.190, West
R84	SANDERSON FIELD/INDU	150 W SANDERSON	WA RGA LUST	Higher	6282, 1.190, West
R85	SUNRISE FIBERGLASS E	W 171 SANDERSON WAY	FTTS, HIST FTTS	Higher	6404, 1.213, West
R86	SUNRISE FIBERGLASS E	171 W SANDERSON WAY	FINDS, ECHO	Higher	6417, 1.215, West
R87	SUNRISE FIBERGLASS E	171 W SANDERSON WAY	ICIS	Higher	6417, 1.215, West
S88		HIAWATHA BOULEVARD A	WA SPILLS	Higher	6500, 1.231, ESE
T89	AM/PM GAS STATION	106 E WALLACE KNEELA	WA UST, WA MANIFEST	Lower	6520, 1.235, SSW
T90	ARCO 82609	106 E WALLACE KNEELA	WA RGA HWS	Lower	6520, 1.235, SSW
T91	ARCO AM/PM MINI MARK	106 E WALLACE KNEELA	WA RGA LUST	Lower	6520, 1.235, SSW
T92	PRESTIGE STATIONS IN	106 E WALLACE KNEELA	EDR Hist Auto	Lower	6520, 1.235, SSW
T93	AM/PM GAS STATION	106 E WALLACE KNEELA	WA Financial Assurance	Lower	6520, 1.235, SSW
T94	ARCO AMPM - SHELTON	106 E WALLACE KNEELA	WA LUST, WA VCP, WA ALLSITES, WA CSCSL NFA, WA...	Lower	6520, 1.235, SSW
T95	AM/PM GAS STATION	106 E WALLACE KNEELA	WA RGA LUST	Lower	6520, 1.235, SSW
T96	ARCO 82609	106 E WALLACE KNEELA	WA RGA LUST	Lower	6520, 1.235, SSW
T97	ARCO 82609	106 E WALLACE KNEELA	RCRA NonGen / NLR, FINDS, ECHO, WA MANIFEST	Lower	6520, 1.235, SSW
T98	ARCO	106 EAST WALLACE KNE	WA SPILLS	Lower	6520, 1.235, SSW
U99	BRADYS NURSERY	920 E JOHNS PRAIRIE	WA RGA LF	Lower	6530, 1.237, ESE
U100	BRADY'S NURSERY	920 E JOHNS PRAIRIE	WA SWF/LF	Lower	6530, 1.237, ESE
S101	WA317947269 - WHISKE	21 ADONAI CT	FINDS	Higher	6598, 1.250, ESE
102			WA SPILLS	Lower	6610, 1.252, ENE
V103	DAVES PERFORMANCE MA	1341 E JOHNS PRAIRIE	FINDS	Higher	6653, 1.260, East
V104	DAVES PERFORMANCE MA	1341 E JOHNS PRAIRIE	WA ALLSITES	Higher	6653, 1.260, East
V105	APEX COLLISION SERVI	1347 E JOHNS PRAIRIE	FINDS	Lower	6666, 1.263, East
V106	APEX COLLISION SERVI	1347 E JOHNS PRAIRIE	WA ALLSITES	Lower	6666, 1.263, East
V107	NEAR:	1347 E JOHNS PRAIRIE	WA SPILLS	Lower	6666, 1.263, East
108	INGRAHAM OIL COMPANY	6 COMET LN	EDR Hist Auto	Lower	6757, 1.280, SSE
109	WA317946698 - SSI CA	820 E HIAWATHA BLVD	FINDS	Higher	6814, 1.291, ESE
W110	SHELTON SOC 070821	140 BELL LN	WA UST	Lower	6872, 1.302, South
W111	US WEST SOC	140 BELL LN	WA LUST, WA ICR, WA ALLSITES, WA CSCSL NFA	Lower	6872, 1.302, South
W112	US WEST SOC	140 BELL LN	FINDS	Lower	6872, 1.302, South
W113	SHELTON SOC 070821	140 BELL LN	WA RGA LUST	Lower	6872, 1.302, South
X114	VEHICLE OWNER	301 EAST WALLACE KNE	WA SPILLS	Lower	6876, 1.302, South
X115	JAMES FOOD MART	301 E WALLACE KNEELA	FINDS	Lower	6876, 1.302, South
X116	KNEELAND PLAZA CLEAN	301 E WALLACE KNEELA	EDR Hist Cleaner	Lower	6876, 1.302, South
X117	FRED MEYER #603 FUEL	301 E WALLACE KNEELA	WA UST, WA ALLSITES	Lower	6876, 1.302, South

MAPPED SITES SUMMARY

Target Property Address:
784 E ISLAND LAKE DR
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MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
X118	JAMES FOOD MART	301 E WALLACE KNEELA	WA Financial Assurance	Lower	6876, 1.302, South
X119	GRADENS SHELTON CHEV	301 E WALLCE KNEELND	EDR Hist Auto	Lower	6876, 1.302, South
X120	GOODWILL OF THE OLYM	301 WALLACE KNEELAND	WA SWRCY	Lower	6876, 1.302, South
W121	L & R DIESEL SERVICE	211 BELL LN	WA UST, WA ALLSITES, FINDS	Lower	6890, 1.305, South
Y122	MASON COUNTY GARBAGE	81 WILBUR WAY	FINDS	Higher	6959, 1.318, East
Y123	MASON COUNTY GARBAGE	81 WILBUR WAY	WA RGA LF	Higher	6959, 1.318, East
Y124	MASON COUNTY GARBAGE	81 WILBUR WAY	WA SWF/LF, WA ALLSITES	Higher	6959, 1.318, East
Z125	GOOSE LAKE	NW OF SR 101	WA HSL, WA CSCSL, WA BROWNFIELDS, WA ALLSITES	Lower	7046, 1.334, SSW
126		E 250 HIAWATHA BLVD	WA SPILLS	Lower	7066, 1.338, SE
Z127	GOOSE LAKE	NW OF SHELTON OFF HW	SEMS	Lower	7082, 1.341, SSW
Z128	GOOSE LAKE	NW OF SHELTON OFF HW	FINDS	Lower	7083, 1.341, SSW
129	WA317948377 - OLYMPI	822 E HIAWATHA BLVD	FINDS	Higher	7090, 1.343, ESE
AA130	BURGERMASTER SHELL F	3001 OLYMPIC HWY N	FINDS	Lower	7118, 1.348, South
AA131	BURGERMASTER SHELL F	3001 OLYMPIC HWY N	WA ALLSITES, WA SPILLS, WA Financial Assurance	Lower	7118, 1.348, South
AA132	DAVID M BLAIN	3001 OLYMPIC HWY N	WA UST	Lower	7118, 1.348, South
AB133	SHELTON MUNICIPAL AI	410 W BUSINESS PARK	FINDS	Higher	7173, 1.359, West
AB134	SHELTON MUNICIPAL AI	410 W BUSINESS PARK	WA CSCSL, WA ALLSITES, WA ASBESTOS	Higher	7173, 1.359, West
AB135		430 W. BUSINESS PARK	WA ASBESTOS	Higher	7189, 1.362, West
AB136	PORT OF SHELTON	450 W BUSINESS PARK	FINDS	Higher	7203, 1.364, West
AB137	PORT OF SHELTON	450 W BUSINESS PARK	FTTS, HIST FTTS	Higher	7203, 1.364, West
138	AERO CONTROLS INC SA	W 231 SANDERSON WAY	FINDS	Higher	7216, 1.367, West
AB139	GREEN DIAMOND RESOUR		WA HSL	Higher	7222, 1.368, West
AB140	GREEN DIAMOND RESOUR	521 W BUSINESS PARK	WA RGA HWS	Higher	7222, 1.368, West
AB141	GREEN DIAMOND RESOUR	521 W BUSINESS PARK	WA RGA HWS	Higher	7222, 1.368, West
AB142	GREEN DIAMOND RESOUR	521 W BUSINESS PARK	FINDS	Higher	7222, 1.368, West
AC143	SIMPSON COMMUNITY CR	2948 OLYMPIC HWY N	FINDS	Lower	7255, 1.374, South
AC144	SIMPSON COMMUNITY CR	2948 OLYMPIC HWY N	WA UST, WA ALLSITES	Lower	7255, 1.374, South
145	PUD #3	120 BRAMBLE LANE	WA SPILLS	Lower	7409, 1.403, NE
AD146	SHELTON PORT BUSINES	W 410 BUSINESS PARK	FINDS, ECHO	Higher	7413, 1.404, West
AE147	MASON COUNTY	100 PUBLIC WORKS DR	WA UST	Higher	7424, 1.406, WNW
AE148	MASON CNTY CENTRAL S	100 W PUBLIC WORKS D	RCRA-CESQG	Higher	7424, 1.406, WNW
AE149	MASON CNTY CENTRAL S	100 W PUBLIC WORKS D	FINDS, ECHO	Higher	7424, 1.406, WNW
AE150	MASON CNTY CENTRAL S	100 W PUBLIC WORKS D	WA ALLSITES, WA MANIFEST	Higher	7424, 1.406, WNW
AE151	MASON COUNTY PUBLIC	100 PUBLIC WORKS DR	WA ALLSITES	Higher	7424, 1.406, WNW
AE152	MASON COUNTY PUBLIC	100 PUBLIC WORKS DR	FINDS	Higher	7424, 1.406, WNW
AE153	MASON COUNTY	100 PUBLIC WORKS DR	WA Financial Assurance	Higher	7424, 1.406, WNW
154	WA AGR MASON 1	751A WEST FAIRGROUND	FINDS, ECHO	Higher	7467, 1.414, SW
AF155	OIL CAN HENRYS SHELT	2919 OLYMPIC HWY N	FINDS	Lower	7494, 1.419, South
AF156	OIL CAN HENRYS SHELT	2919 OLYMPIC HWY N	WA ALLSITES	Lower	7494, 1.419, South

MAPPED SITES SUMMARY

Target Property Address:
784 E ISLAND LAKE DR
SHELTON, WA 98584

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MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
AD157	SHELTON PORT BUSINES	W 410 BUSINESS PARK	WA ALLSITES, RCRA NonGen / NLR, WA MANIFEST	Higher	7526, 1.425, West
AF158	ADVANCED AUTOMOTIVE	2921 NORTHVIEW CIR	FINDS	Lower	7681, 1.455, South
AF159		2921 N VIEW CIRCLE	WA SPILLS	Lower	7681, 1.455, South
AF160	ADVANCED AUTOMOTIVE	2921 NORTHVIEW CIR	WA ALLSITES	Lower	7681, 1.455, South
161	SIMS VIBRATION LABOR	121 W DEVELOPMENT RD	WA ALLSITES	Higher	7685, 1.455, West
AG162	MASON CO PUD 3 MT VI	350 E L ST	WA ALLSITES	Lower	7824, 1.482, South
163	MASON GENERAL HOSPIT	M.G. HOSP., 901 MTN.	FINDS	Lower	7824, 1.482, SSE
AH164		534 EAST K STREET	WA ASBESTOS	Lower	7887, 1.494, South
AH165	SHELTON ELEMENTARY	402 E K ST	FINDS, ECHO	Lower	7901, 1.496, South
AH166	SHELTON ELEMENTARY	402 E K ST	WA ALLSITES, WA NPDES	Lower	7901, 1.496, South
AG167	MASON CO PUD 3 MT VI	350 E L ST	FINDS	Lower	7937, 1.503, South
168	CERTIFIED MFG CO INC	SANDERSON FIELD	WA UST, WA ALLSITES	Higher	7990, 1.513, WSW
169	HOUSE	2421 LAUREL ST	WA ASBESTOS	Lower	8003, 1.516, South
170	WA AGR MASON 1	751 A W FAIRGROUNDS	WA ALLSITES, RCRA NonGen / NLR, WA MANIFEST	Higher	8021, 1.519, SW
AI171	BONNEVILLE POWER ADM	2508 OLYMPIC HWY N	FINDS	Lower	8026, 1.520, South
AI172	BONNEVILLE POWER ADM	2508 OLYMPIC HWY N	WA RGA HWS	Lower	8026, 1.520, South
AI173		2508 OLYMPIC HWY N	ERNS	Lower	8026, 1.520, South
AI174	BONNEVILLE POWER ADM	2508 OLYMPIC HWY N	WA CSCSL, WA ALLSITES, WA SPILLS	Lower	8026, 1.520, South
175	SHELTON MUNICIPAL AI	APPROX 2.5 MILES NW	SEMS-ARCHIVE	Higher	8056, 1.526, SW
AJ176	MASON GENERAL HOSPIT	901 MOUNTAIN VIEW DR	FINDS	Lower	8230, 1.559, South
AJ177	MASON GENERAL HOSPIT	901 MOUNTAIN VIEW DR	WA ALLSITES, WA ASBESTOS, WA NPDES	Lower	8230, 1.559, South
178		1892 E JOHNS PRAIRIE	WA SPILLS	Lower	8238, 1.560, East
AK179	BELCO FOREST PRODUCT	1890 E JOHNS PRAIRIE	WA ALLSITES, FINDS, ECHO, WA MANIFEST	Lower	8393, 1.590, East
AK180		1890 E JOHN PRAIRIE	WA SPILLS	Lower	8393, 1.590, East
AK181	BELCO FOREST PRODUCT	1890 E JOHNS PRAIRIE	RCRA NonGen / NLR	Lower	8393, 1.590, East
182	WA DOT SHELTON 633	W 633 DAYTON AIRPORT	WA ALLSITES, FINDS	Higher	8394, 1.590, West
AL183	MASON COUNTY PUBLIC	S OF HWY 101	WA ALLSITES	Higher	8395, 1.590, WNW
AM184	MASON COUNTY PUD #3	116 K ST	WA SPILLS	Lower	8409, 1.593, South
AL185	UPPER MOUNTAIN VIEW	S OF HWY 101	FINDS, ECHO	Higher	8411, 1.593, WNW
AM186	MASON CNTY PUD 3	116 E K ST	WA ALLSITES, RCRA NonGen / NLR, FINDS, ECHO	Lower	8428, 1.596, South
AN187	UNKNOWN	2505 OLYMPIC HIGHWAY	WA SPILLS, WA ASBESTOS	Lower	8509, 1.612, South
AN188		2505 OLYMPIC HWY #20	WA SPILLS	Lower	8509, 1.612, South
189	SANDERSON FIELD	UNKNOWN	FINDS	Higher	8583, 1.626, SW
190	MASON COUNTY PUD #3	116 W K STREET	WA SPILLS	Lower	8600, 1.629, South
AO191	ACE PAVING, PLANT 3	EAST 4801 BROCKDALE	WA SWF/LF	Lower	8627, 1.634, North
AO192	ACE PAVING CO INC	E 4801 BROCKDALE RD	WA AIRS	Lower	8627, 1.634, North
193	GLENN CUSTOM MILLING	1892 JOHNS PRAIRIE R	FINDS	Lower	8644, 1.637, East
AP194		161 JOHNS CREEK DRIV	WA SPILLS	Lower	8665, 1.641, East
AP195		161 JOHNS CREEK DR	ERNS	Lower	8665, 1.641, East

MAPPED SITES SUMMARY

Target Property Address:
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MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
AQ196	CANYON RIVER SHOP	SE1/4 S24 T21N RTW W	FINDS	Higher	8706, 1.649, SSE
AQ197	SHELTON PRINT482 11T	PACIFIC DIVISION UST	FINDS	Higher	8706, 1.649, SSE
AQ198	CAMP GRISDALE	NE1/4 S31 T22N RTW W	FINDS	Higher	8706, 1.649, SSE
AR199	SHELTON VETERINARY H	104 E J ST	WA ALLSITES	Lower	8753, 1.658, South
AR200	SHELTON VETERINARY H	104 E J ST	FINDS	Lower	8753, 1.658, South
201		2136 LAUREL ST	WA ASBESTOS	Lower	8803, 1.667, South
AS202	WA DOT SKOKOMISH RIV	SR 101 MP 338.77	WA ALLSITES, RCRA NonGen / NLR	Lower	8809, 1.668, SSW
AS203	WA DOT SKOKOMISH RIV	SR 101 MP 338.77	FINDS, ECHO	Lower	8812, 1.669, SSW
AT204	PUBLIC UTILITY DIST	HWY 101 & K ST	WA CSCSL, WA LUST, WA UST, WA ALLSITES, FINDS	Lower	8869, 1.680, South
205		1707 NORTHCLIFF RD	WA SPILLS	Lower	8948, 1.695, SSE
AU206	HOOD CANAL COMMUNICA	2218 OLYMPIC HWY N	FINDS	Lower	8961, 1.697, South
AU207	HOOD CANAL COMMUNICA	2218 OLYMPIC HWY N	WA UST, WA ALLSITES	Lower	8961, 1.697, South
AT208	PUBLIC UTILITY DISTR	HWY 101 & K ST.	WA ICR	Lower	8968, 1.698, South
AR209	SHELTON TEXACO	2235 OLYMPIC HWY N	FINDS	Lower	8975, 1.700, South
AR210	SHELTON TEXACO	2235 OLYMPIC HWY N	WA UST	Lower	8975, 1.700, South
AR211	B & N ENTERPRISES/B	2235 OLYMPIC HWY N	EDR Hist Auto	Lower	8975, 1.700, South
AR212	SHELTON TEXACO	2235 OLYMPIC HWY N	WA ALLSITES, WA Financial Assurance	Lower	8975, 1.700, South
AU213	JACKPOT FOOD MART 36	2210 OLYMPIC HWY N	FINDS	Lower	9015, 1.707, South
AU214	JACK POT GAS STATION	2210 OLYMPIC HWY N	EDR Hist Auto	Lower	9015, 1.707, South
AU215	JACKPOT FOOD MART 36	2210 OLYMPIC HWY N	WA UST, WA ALLSITES	Lower	9015, 1.707, South
216	MASON GENERAL HOSPIT	UNKNOWN	FINDS	Lower	9023, 1.709, SSE
217		2125 WASHINGTON STRE	WA ASBESTOS	Lower	9028, 1.710, South
AV218	MATLOCK SHOP	WEST 50 MATLOCK DECK	WA UST, WA ALLSITES	Higher	9065, 1.717, SSE
AW219	AERO CONTROLS INCORP	520 W DAYTON AIRPORT	ECHO	Higher	9066, 1.717, West
AV220	MATLOCK SHOP	50 MATLOCK DECKERVIL	FINDS	Higher	9077, 1.719, SSE
AV221	FIR CREEK WORK CENTE	S3 T21N R5W NW1/4	FINDS	Higher	9077, 1.719, SSE
222	MASON CO PUD # 3	237 PROFFESSIONAL AW	WA SPILLS	Lower	9107, 1.725, SSE
AX223	TRANSFORMER SVC CO	PORT OF SHELTON SAND	WA ALLSITES, RCRA NonGen / NLR	Higher	9184, 1.739, SW
AX224	TRANSFORMER SVC CO	SANDERSON INDUSTRIAL	FINDS, ECHO	Higher	9184, 1.739, SW
AW225	AERO CONTROLS INC DA	W 520 DAYTON AIRPORT	FINDS	Higher	9189, 1.740, West
AY226	SHELTON SATELLITE WW	10891 HIGHWAY 101	WA RGA LF	Lower	9216, 1.745, South
AY227	SHELTON SATELLITE WW	10891 HIGHWAY 101	WA SWF/LF	Lower	9216, 1.745, South
AZ228		809 TERRACE BLVD	WA SPILLS	Lower	9236, 1.749, SSE
AZ229	PUD	801 TERRACE BLVD	WA SPILLS	Lower	9266, 1.755, SSE
BA230	D & L AUTOMOTIVE & M	2033 OLYMPIC HWY N	FINDS	Lower	9581, 1.815, South
BA231	D & L AUTOMOTIVE & M	2033 OLYMPIC HWY N	WA ALLSITES	Lower	9581, 1.815, South
232	WA WSP ACADEMY	W 631 DAYTON AIRPORT	FINDS, ECHO	Higher	9635, 1.825, West
233		506 WEST I STREET	WA ASBESTOS	Lower	9654, 1.828, South
234		124 E. "G" ST.,	WA HIST CDL	Lower	9710, 1.839, South

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MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
BA235	CUZICK ROLAND	2005 OLYMPIC HWY N	EDR Hist Auto	Lower	9713, 1.840, South

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
784 E ISLAND LAKE DR 784 E ISLAND LAKE DR SHELTON, WA 98584	WA ASBESTOS	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
WA AST ---------- Aboveground Storage Tank Locations
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

WA INST CONTROL ---------- Institutional Control Site List

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
WA PTAP ---------- PTAP Site Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WA SWTIRE ---------- Solid Waste Tire Facilities
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
WA CDL ---------- Clandestine Drug Lab Contaminated Site List
US CDL ---------- National Clandestine Laboratory Register
WA PFAS ---------- PFAS Contamination Site Location Listing

Local Land Records

LIENS 2 ---------- CERCLA Lien Information

Records of Emergency Release Reports

HMIRS ---------- Hazardous Materials Information Reporting System
WA SPILLS 90 ---------- SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS ---------- Formerly Used Defense Sites
DOD ---------- Department of Defense Sites
SCRD DRYCLEANERS ---------- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---------- Financial Assurance Information
EPA WATCH LIST ---------- EPA WATCH LIST
2020 COR ACTION ---------- 2020 Corrective Action Program List

TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
WA COAL ASH ---- Coal Ash Disposal Site Listing
WA DRYCLEANERS ---- Drycleaner List
WA Inactive Drycleaners ---- Inactive Drycleaners
WA UIC ---- Underground Injection Wells Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

EXECUTIVE SUMMARY

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 04/11/2019 has revealed that there is 1 SEMS site within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOOSE LAKE Site ID: 1000957 EPA Id: WAD980723159	NW OF SHELTON OFF HW	SSW 1 - 2 (1.341 mi.)	Z127	360

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 04/11/2019 has revealed that there is 1 SEMS-ARCHIVE site within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELTON MUNICIPAL AI Site ID: 1001835 EPA Id: WA0001101955	APPROX 2.5 MILES NW	SW 1 - 2 (1.526 mi.)	175	454

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1

RCRA-LQG site within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AERO CONTROLS INC SA EPA ID:: WAD988504288	***W 231 SANDERSON WAY***	***W 1 - 2 (1.134 mi.)***	***N65***	***156***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 RCRA-SQG site within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
WAL MART STORE 2121 EPA ID:: WAR000002113	***100 E WALLACE KNEELA***	***S 1 - 2 (1.140 mi.)***	***O66***	***160***

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 03/25/2019 has revealed that there are 2 RCRA-CESQG sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TACOMA PUBLIC UTILIT EPA ID:: WAD988502340	***N 21451 HWY 101***	***W 1 - 2 (1.101 mi.)***	***55***	***109***
MASON CNTY CENTRAL S EPA ID:: WAH000034273	100 W PUBLIC WORKS D	WNW 1 - 2 (1.406 mi.)	AE148	384

Federal ERNS list

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 03/25/2019 has revealed that there are 2 ERNS sites within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported NRC Report #: 53897	2508 OLYMPIC HWY N	S 1 - 2 (1.520 mi.)	AI173	448
Not reported	161 JOHNS CREEK DR	E 1 - 2 (1.641 mi.)	AP195	494

NRC Report #: 1076113

State- and tribal - equivalent NPL

WA HSL: The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

A review of the WA HSL list, as provided by EDR, and dated 02/27/2019 has revealed that there are 3 WA HSL sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PORT OF SHELTON ALL	***SANDERSON FIELD***	***WSW 1 - 2 (1.112 mi.)***	***60***	***152***
Facility Type: Hazardous Sites List FSID Number: 1187 Facility Status: Cleanup Started				
GREEN DIAMOND RESOUR		W 1 - 2 (1.368 mi.)	AB139	379
Facility Type: Hazardous Sites List FSID Number: 189457 Facility Status: Awaiting Cleanup				

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOOSE LAKE	***NW OF SR 101***	***SSW 1 - 2 (1.334 mi.)***	***Z125***	***355***
Facility Type: Hazardous Sites List FSID Number: 1185 Facility Status: Cleanup Started				

State- and tribal - equivalent CERCLIS

WA CSCSL: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Ecology's Confirmed & Suspected Contaminated Sites List.

A review of the WA CSCSL list, as provided by EDR, and dated 01/15/2019 has revealed that there are 6 WA CSCSL sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PORT OF SHELTON ALL	***SANDERSON FIELD***	***WSW 1 - 2 (1.112 mi.)***	***60***	***152***
Site Status: Cleanup Started Facility ID: 1187 Clean Up Siteid: 2411				
SHELTON MUNICIPAL AI	***410 W BUSINESS PARK***	***W 1 - 2 (1.359 mi.)***	***AB134***	***365***
Site Status: Construction Complete-Performance Monitoring Facility ID: 3018 Clean Up Siteid: 12954				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C19***	***32***

Site Status: Cleanup Started
Facility ID: 23634752
Clean Up Siteid: 5731

GOOSE LAKE	***NW OF SR 101***	***SSW 1 - 2 (1.334 mi.)***	***Z125***	***355***

Site Status: Cleanup Started
Facility ID: 1185
Clean Up Siteid: 2537

BONNEVILLE POWER ADM	***2508 OLYMPIC HWY N***	***S 1 - 2 (1.520 mi.)***	***AI174***	***452***

Site Status: Awaiting Cleanup
Facility ID: 9434357
Clean Up Siteid: 1636

PUBLIC UTILITY DIST	***HWY 101 & K ST***	***S 1 - 2 (1.680 mi.)***	***AT204***	***504***

Site Status: Cleanup Started
Facility ID: 53171158
Clean Up Siteid: 9575

State and tribal landfill and/or solid waste disposal site lists

WA SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Ecology's Solid Waste Facilities Handbook.

A review of the WA SWF/LF list, as provided by EDR, has revealed that there are 6 WA SWF/LF sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY GARBAGE	***81 WILBUR WAY***	***E 1 - 2 (1.318 mi.)***	***Y124***	***354***

Database: SWF/LF, Date of Government Version: 06/06/2019
Facility ID: 1984

Lower Elevation	Address	Direction / Distance	Map ID	Page
WILSON RECYCLING	2278 E BROCKDALE RD	E 1/2 - 1 (0.719 mi.)	B12	27

Database: SWF/LF, Date of Government Version: 06/06/2019
Facility ID: 3207

JIM'S AUTOMOTIVE, IN	2911 E BROCKDALE RD	NE 1/2 - 1 (0.996 mi.)	38	79

Database: SWF/LF, Date of Government Version: 06/06/2019
Facility ID: 1771

BRADY'S NURSERY	920 E JOHNS PRAIRIE	ESE 1 - 2 (1.237 mi.)	U100	332

Database: SWF/LF, Date of Government Version: 06/06/2019
Facility ID: 845

ACE PAVING, PLANT 3	EAST 4801 BROCKDALE	N 1 - 2 (1.634 mi.)	AO191	489

Database: SWF/LF, Date of Government Version: 06/06/2019
Facility ID: 624

SHELTON SATELLITE WW	10891 HIGHWAY 101	S 1 - 2 (1.745 mi.)	AY227	535

Database: SWF/LF, Date of Government Version: 06/06/2019
Facility ID: 504

State and tribal leaking storage tank lists

WA LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Ecology's Leaking Underground Storage Tanks Site List.

A review of the WA LUST list, as provided by EDR, has revealed that there are 7 WA LUST sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY	***11900 HWY 101***	***SW 1/2 - 1 (0.949 mi.)***	***D27***	***59***
Database: LUST, Date of Government Version: 05/13/2019 Facility Status: LUST - NFA Cleanup Site ID: 6577 Facility ID: 72961678				
DON SMALL & SONS OIL	***150 W SANDERSON WY***	***W 1 - 2 (1.190 mi.)***	***R83***	***287***
Database: LUST, Date of Government Version: 05/13/2019 Facility Status: LUST - NFA Cleanup Site ID: 6523 Facility ID: 69261716				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C19***	***32***
Database: LUST, Date of Government Version: 05/13/2019 Facility Status: LUST - Cleanup Started Cleanup Site ID: 5731 Facility ID: 23634752				
HIAWATHA INC	***681 E JOHNS PRAIRIE***	***SE 1/2 - 1 (0.963 mi.)***	***E35***	***71***
Database: LUST, Date of Government Version: 05/13/2019 Facility Status: LUST - NFA Cleanup Site ID: 10400 Facility ID: 75267324				
ARCO AMPM - SHELTON	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T94***	***313***
Database: LUST, Date of Government Version: 05/13/2019 Facility Status: LUST - NFA Cleanup Site ID: 6444 Facility ID: 64487875				
US WEST SOC	***140 BELL LN***	***S 1 - 2 (1.302 mi.)***	***W111***	***337***
Database: LUST, Date of Government Version: 05/13/2019 Facility Status: LUST - NFA Cleanup Site ID: 6117 Facility ID: 45763147				
PUBLIC UTILITY DIST	***HWY 101 & K ST***	***S 1 - 2 (1.680 mi.)***	***AT204***	***504***
Database: LUST, Date of Government Version: 05/13/2019 Facility Status: LUST - Cleanup Started Cleanup Site ID: 9575 Facility ID: 53171158				

State and tribal registered storage tank lists

WA UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Ecology's Statewide UST Site/Tank Report.

A review of the WA UST list, as provided by EDR, and dated 02/09/2019 has revealed that there are 19 WA UST sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY Site Id: 100186 Facility ID: 72961678	***11900 HWY 101***	***SW 1/2 - 1 (0.949 mi.)***	***D27***	***59***
OLYMPIC AIR INC Site Id: 10307 Facility ID: 99574416	***11771 N HWY 101***	***SW 1/2 - 1 (0.968 mi.)***	***F37***	***76***
SHELTON FLIGHT INC Site Id: 4843 Facility ID: 95688881	***HWY 101 SANDERSON FI***	***SSW 1 - 2 (1.034 mi.)***	***44***	***82***
DON SMALL & SONS OIL Site Id: 8372 Facility ID: 69261716	***150 W SANDERSON WAY***	***W 1 - 2 (1.190 mi.)***	***R82***	***284***
MASON COUNTY Site Id: 619610 Facility ID: 12001	100 PUBLIC WORKS DR	WNW 1 - 2 (1.406 mi.)	AE147	383
CERTIFIED MFG CO INC Site Id: 9205 Facility ID: 68491588	***SANDERSON FIELD***	***WSW 1 - 2 (1.513 mi.)***	***168***	***426***
MATLOCK SHOP Site Id: 4212 Facility ID: 3626955	***WEST 50 MATLOCK DECK***	***SSE 1 - 2 (1.717 mi.)***	***AV218***	***529***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO Site Id: 331 Facility ID: 23634752	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C22***	***52***
HIAWATHA INC Site Id: 689 Facility ID: 75267324	***681 E JOHNS PRAIRIE***	***SE 1/2 - 1 (0.963 mi.)***	***E35***	***71***
AM/PM GAS STATION Site Id: 341849 Facility ID: 64487875	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T89***	***295***
SHELTON SOC 070821 Site Id: 10463 Facility ID: 45763147	140 BELL LN	S 1 - 2 (1.302 mi.)	W110	336
FRED MEYER #603 FUEL Site Id: 620312 Site Id: 341193 Facility ID: 21924	***301 E WALLACE KNEELA***	***S 1 - 2 (1.302 mi.)***	***X117***	***342***

Facility ID: 71359371				
L & R DIESEL SERVICE Site Id: 3119 Facility ID: 37339798	***211 BELL LN***	***S 1 - 2 (1.305 mi.)***	***W121***	***352***
DAVID M BLAIN Site Id: 476293 Facility ID: 36446543	3001 OLYMPIC HWY N	S 1 - 2 (1.348 mi.)	AA132	364
SIMPSON COMMUNITY CR Site Id: 618947 Facility ID: 4324447	***2948 OLYMPIC HWY N***	***S 1 - 2 (1.374 mi.)***	***AC144***	***381***
PUBLIC UTILITY DIST Site Id: 12485 Facility ID: 53171158	***HWY 101 & K ST***	***S 1 - 2 (1.680 mi.)***	***AT204***	***504***
HOOD CANAL COMMUNICA Site Id: 566419 Facility ID: 97112556	***2218 OLYMPIC HWY N***	***S 1 - 2 (1.697 mi.)***	***AU207***	***510***
SHELTON TEXACO Site Id: 3720 Facility ID: 61696173	2235 OLYMPIC HWY N	S 1 - 2 (1.700 mi.)	AR210	512
JACKPOT FOOD MART 36 Site Id: 4007 Facility ID: 42746522	***2210 OLYMPIC HWY N***	***S 1 - 2 (1.707 mi.)***	***AU215***	***518***

State and tribal voluntary cleanup sites

WA ICR: These are remedial action reports Ecology has received from either the owner or operator of the site. These actions have been conducted without department oversight or approval and are not under an order or decree.

A review of the WA ICR list, as provided by EDR, and dated 12/01/2002 has revealed that there are 4 WA ICR sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY TOSCO #0731	***11900 HWY 101*** 150 W. SANDERSON	***SW 1/2 - 1 (0.949 mi.)*** W 1 - 2 (1.190 mi.)	***D27*** R81	***59*** 284

Lower Elevation	Address	Direction / Distance	Map ID	Page
US WEST SOC PUBLIC UTILITY DISTR	***140 BELL LN*** HWY 101 & K ST.	***S 1 - 2 (1.302 mi.)*** S 1 - 2 (1.698 mi.)	***W111*** AT208	***337*** 512

WA VCP: Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

A review of the WA VCP list, as provided by EDR, and dated 01/15/2019 has revealed that there are 4 WA VCP sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY	***11900 HWY 101***	***SW 1/2 - 1 (0.949 mi.)***	***D27***	***59***

Facility ID: 72961678
Cleanup Siteid: 6577

DON SMALL & SONS OIL	***150 W SANDERSON WY***	***W 1 - 2 (1.190 mi.)***	***R83***	***287***
Facility ID: 69261716 Cleanup Siteid: 6523				

Lower Elevation	Address	Direction / Distance	Map ID	Page
BARNES MACHINE INC	***790 E JOHNS PRAIRIE***	***ESE 1 - 2 (1.096 mi.)***	***J53***	***104***
Facility ID: 53878546 Cleanup Siteid: 1715				
ARCO AMPM - SHELTON	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T94***	***313***
Facility ID: 64487875 Cleanup Siteid: 6444				

State and tribal Brownfields sites

WA BROWNFIELDS: A listing of brownfields sites included in the Confirmed & Suspected Sites Listing. Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

A review of the WA BROWNFIELDS list, as provided by EDR, and dated 04/16/2019 has revealed that there is 1 WA BROWNFIELDS site within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GOOSE LAKE	***NW OF SR 101***	***SSW 1 - 2 (1.334 mi.)***	***Z125***	***355***
Facilty ID: 1185 Facility Status: Cleanup Started				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WA SWRCY: A llisting of recycling center locations.

A review of the WA SWRCY list, as provided by EDR, and dated 04/08/2019 has revealed that there are 2 WA SWRCY sites within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PAY MORE RECYCLE & S	***2278 E BROCKDALE RD***	***E 1/2 - 1 (0.719 mi.)***	***B10***	***17***
GOODWILL OF THE OLYM	301 WALLACE KNEELAND	S 1 - 2 (1.302 mi.)	X120	348

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

Information on facilities and sites of interest to the Department of Ecology.

A review of the WA ALLSITES list, as provided by EDR, and dated 05/08/2019 has revealed that there are 62 WA ALLSITES sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY Facility Id: 72961678	***11900 HWY 101***	***SW 1/2 - 1 (0.949 mi.)***	***D27***	***59***
TRACTOR SUPPLY SHELT Facility Id: 20142	12001 N US 101	SW 1/2 - 1 (0.950 mi.)	32	66
OLYMPIC AIR INC Facility Id: 99574416	***11771 N HWY 101***	***SW 1/2 - 1 (0.968 mi.)***	***F37***	***76***
PORT OF SHELTON Facility Id: 9251	21 W SANDERSON WAY	W 1 - 2 (1.020 mi.)	G41	81
SHELTON FLIGHT INC Facility Id: 95688881	***HWY 101 SANDERSON FI***	***SSW 1 - 2 (1.034 mi.)***	***44***	***82***
OLYMPIC FABRICATION Facility Id: 16049	410 W ENTERPRISE RD	WSW 1 - 2 (1.046 mi.)	H49	91
SANDERSON INDUSTRIAL Facility Id: 56493627	***430 W ENTERPRISE RD***	***WSW 1 - 2 (1.076 mi.)***	***I51***	***92***
TACOMA PUBLIC UTILIT Facility Id: 36292444	***N 21451 HWY 101***	***W 1 - 2 (1.101 mi.)***	***55***	***109***
PORT OF SHELTON ALL Facility Id: 1187	***SANDERSON FIELD***	***WSW 1 - 2 (1.112 mi.)***	***60***	***152***
SHELTON WATER RECLAM Facility Id: 9737	***10891 SR101***	***SSW 1 - 2 (1.127 mi.)***	***L61***	***154***
AERO CONTROLS INC SA Facility Id: 62294393	***W 231 SANDERSON WAY***	***W 1 - 2 (1.134 mi.)***	***N65***	***156***
SUNRISE FIBERGLASS E Facility Id: 1744198	***W 171 SANDERSON WAY***	***W 1 - 2 (1.144 mi.)***	***N69***	***263***
REPAIRS PLUS Facility Id: 89922321	1022 E JOHNS PRAIRIE	ESE 1 - 2 (1.153 mi.)	P72	273
OLYMPIC TOOL ENGINEE Facility Id: 35651653	***W 21 SANDERSON WAY***	***W 1 - 2 (1.156 mi.)***	***N73***	***273***
DAYTON AIRPORT RD WA Facility Id: 19491	DAYTON AIRPORT SHELT	W 1 - 2 (1.166 mi.)	Q74	279
DON SMALL & SONS OIL Facility Id: 69261716	***150 W SANDERSON WY***	***W 1 - 2 (1.190 mi.)***	***R83***	***287***
DAVES PERFORMANCE MA Facility Id: 10369	1341 E JOHNS PRAIRIE	E 1 - 2 (1.260 mi.)	V104	334
MASON COUNTY GARBAGE Facility Id: 4865154	***81 WILBUR WAY***	***E 1 - 2 (1.318 mi.)***	***Y124***	***354***
SHELTON MUNICIPAL AI Facility Id: 3018	***410 W BUSINESS PARK***	***W 1 - 2 (1.359 mi.)***	***AB134***	***365***
MASON CNTY CENTRAL S	***100 W PUBLIC WORKS D***	***WNW 1 - 2 (1.406 mi.)***	***AE150***	***389***

Facility Id: 1049634				
MASON COUNTY PUBLIC Facility Id: 12001	100 PUBLIC WORKS DR	WNW 1 - 2 (1.406 mi.)	AE151	403
SHELTON PORT BUSINES Facility Id: 41855348	***W 410 BUSINESS PARK***	***W 1 - 2 (1.425 mi.)***	***AD157***	***406***
SIMS VIBRATION LABOR Facility Id: 8140	121 W DEVELOPMENT RD	W 1 - 2 (1.455 mi.)	161	418
CERTIFIED MFG CO INC Facility Id: 68491588	***SANDERSON FIELD***	***WSW 1 - 2 (1.513 mi.)***	***168***	***426***
WA AGR MASON 1 Facility Id: 81428124	***751 A W FAIRGROUNDS***	***SW 1 - 2 (1.519 mi.)***	***170***	***429***
WA DOT SHELTON 633 Facility Id: 74566742	***W 633 DAYTON AIRPORT***	***W 1 - 2 (1.590 mi.)***	***182***	***478***
MASON COUNTY PUBLIC Facility Id: 5194	S OF HWY 101	WNW 1 - 2 (1.590 mi.)	AL183	479
MATLOCK SHOP Facility Id: 3626955	***WEST 50 MATLOCK DECK***	***SSE 1 - 2 (1.717 mi.)***	***AV218***	***529***
TRANSFORMER SVC CO Facility Id: 79875812	***PORT OF SHELTON SAND***	***SW 1 - 2 (1.739 mi.)***	***AX223***	***533***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELTON SPRINGS Facility Id: 55191		S 1/2 - 1 (0.622 mi.)	6	14
SHELTON HIGH SCHOOL Facility Id: 48180	***3737 N SHELTON SPRIN***	***SSW 1/2 - 1 (0.716 mi.)***	***A9***	***16***
PAY MORE RECYCLE & S Facility Id: 2932	***2278 E BROCKDALE RD***	***E 1/2 - 1 (0.719 mi.)***	***B10***	***17***
MASON COUNTY TRANSPO Facility Id: 23634752	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C19***	***32***
HIAWATHA INC Facility Id: 75267324	***681 E JOHNS PRAIRIE***	***SE 1/2 - 1 (0.963 mi.)***	***E35***	***71***
BARNES MACHINE INC Facility Id: 9519 Facility Id: 53878546	***790 E JOHNS PRAIRIE***	***ESE 1 - 2 (1.096 mi.)***	***J53***	***104***
ROSAND DAM Facility Id: 55386655		E 1 - 2 (1.106 mi.)	K57	151
TRANSMISSIONS PLUS A Facility Id: 4542	31 E VANCE CT	ESE 1 - 2 (1.130 mi.)	M64	155
WAL MART STORE 2121 Facility Id: 13975422 Facility Id: 19299	***100 E WALLACE KNEELA***	***S 1 - 2 (1.140 mi.)***	***O66***	***160***
GRADENS SHELTON CHEV Facility Id: 36168529	***701 E WALLACE KNEELA***	***S 1 - 2 (1.173 mi.)***	***75***	***280***
ARCO AMPM - SHELTON Facility Id: 64487875	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T94***	***313***
APEX COLLISION SERVI	1347 E JOHNS PRAIRIE	E 1 - 2 (1.263 mi.)	V106	335

Facility Id: 18143				
US WEST SOC Facility Id: 45763147	***140 BELL LN***	***S 1 - 2 (1.302 mi.)***	***W111***	***337***
FRED MEYER #603 FUEL Facility Id: 71359371 Facility Id: 21924 Facility Id: 23424	***301 E WALLACE KNEELA***	***S 1 - 2 (1.302 mi.)***	***X117***	***342***
L & R DIESEL SERVICE Facility Id: 37339798	***211 BELL LN***	***S 1 - 2 (1.305 mi.)***	***W121***	***352***
GOOSE LAKE Facility Id: 1185	***NW OF SR 101***	***SSW 1 - 2 (1.334 mi.)***	***Z125***	***355***
BURGERMASTER SHELL F Facility Id: 36446543	***3001 OLYMPIC HWY N***	***S 1 - 2 (1.348 mi.)***	***AA131***	***363***
SIMPSON COMMUNITY CR Facility Id: 4324447	***2948 OLYMPIC HWY N***	***S 1 - 2 (1.374 mi.)***	***AC144***	***381***
OIL CAN HENRYS SHELT Facility Id: 10000	2919 OLYMPIC HWY N	S 1 - 2 (1.419 mi.)	AF156	406
ADVANCED AUTOMOTIVE Facility Id: 15833	2921 NORTHVIEW CIR	S 1 - 2 (1.455 mi.)	AF160	417
MASON CO PUD 3 MT VI Facility Id: 3460	350 E L ST	S 1 - 2 (1.482 mi.)	AG162	418
SHELTON ELEMENTARY Facility Id: 51510	***402 E K ST***	***S 1 - 2 (1.496 mi.)***	***AH166***	***425***
BONNEVILLE POWER ADM Facility Id: 9434357	***2508 OLYMPIC HWY N***	***S 1 - 2 (1.520 mi.)***	***AI174***	***452***
MASON GENERAL HOSPIT Facility Id: 15678	***901 MOUNTAIN VIEW DR***	***S 1 - 2 (1.559 mi.)***	***AJ177***	***455***
BELCO FOREST PRODUCT Facility Id: 7463982	***1890 E JOHNS PRAIRIE***	***E 1 - 2 (1.590 mi.)***	***AK179***	***469***
MASON CNTY PUD 3 Facility Id: 45521314	***116 E K ST***	***S 1 - 2 (1.596 mi.)***	***AM186***	***480***
SHELTON VETERINARY H Facility Id: 1960	104 E J ST	S 1 - 2 (1.658 mi.)	AR199	499
WA DOT SKOKOMISH RIV Facility Id: 72915915	***SR 101 MP 338.77***	***SSW 1 - 2 (1.668 mi.)***	***AS202***	***501***
PUBLIC UTILITY DIST Facility Id: 53171158	***HWY 101 & K ST***	***S 1 - 2 (1.680 mi.)***	***AT204***	***504***
HOOD CANAL COMMUNICA Facility Id: 97112556	***2218 OLYMPIC HWY N***	***S 1 - 2 (1.697 mi.)***	***AU207***	***510***
SHELTON TEXACO Facility Id: 61696173	***2235 OLYMPIC HWY N***	***S 1 - 2 (1.700 mi.)***	***AR212***	***515***
JACKPOT FOOD MART 36 Facility Id: 42746522	***2210 OLYMPIC HWY N***	***S 1 - 2 (1.707 mi.)***	***AU215***	***518***
D & L AUTOMOTIVE & M Facility Id: 8147	2033 OLYMPIC HWY N	S 1 - 2 (1.815 mi.)	BA231	538

WA HIST CDL: This listing of contaminated sites by Clandestine Drug Labs includes non-remediated properties. The current CDL listing does not. This listing is no longer updated by the state agency.

A review of the WA HIST CDL list, as provided by EDR, and dated 02/08/2007 has revealed that there are 2 WA HIST CDL sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported Facility ID: 93010	310 E. BLEVINS RD.	W 1/2 - 1 (0.792 mi.)	15	29

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported Facility ID: 20015	124 E. "G" ST.,	S 1 - 2 (1.839 mi.)	234	540

WA CSCSL NFA: The data set contains information about sites previously on the Confirmed and Suspected Contaminated Sites list that have received a No Further Action (NFA) determination. Because it is necessary to maintain historical records of sites that have been investigated and cleaned up, sites are not deleted from the database when cleanup activities are completed. Instead a No Further Action code is entered based upon the type of NFA determination the site received.

A review of the WA CSCSL NFA list, as provided by EDR, and dated 04/16/2019 has revealed that there are 6 WA CSCSL NFA sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY Facility/Site Id: 72961678 CS Id: 6577	***11900 HWY 101***	***SW 1/2 - 1 (0.949 mi.)***	***D27***	***59***
DON SMALL & SONS OIL Facility/Site Id: 69261716 CS Id: 6523	***150 W SANDERSON WY***	***W 1 - 2 (1.190 mi.)***	***R83***	***287***

Lower Elevation	Address	Direction / Distance	Map ID	Page
HIAWATHA INC Facility/Site Id: 75267324 CS Id: 10400	***681 E JOHNS PRAIRIE***	***SE 1/2 - 1 (0.963 mi.)***	***E35***	***71***
BARNES MACHINE INC Facility/Site Id: 53878546 CS Id: 1715	***790 E JOHNS PRAIRIE***	***ESE 1 - 2 (1.096 mi.)***	***J53***	***104***
ARCO AMPM - SHELTON Facility/Site Id: 64487875 CS Id: 6444	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T94***	***313***
US WEST SOC Facility/Site Id: 45763147 CS Id: 6117	***140 BELL LN***	***S 1 - 2 (1.302 mi.)***	***W111***	***337***

Records of Emergency Release Reports

WA SPILLS: Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

A review of the WA SPILLS list, as provided by EDR, and dated 06/12/2019 has revealed that there are 26 WA SPILLS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported Facility ID: 96870	HWY 102	WNW 1 - 2 (1.178 mi.)	Q76	280
Not reported Facility ID: 90713	OFF HIGH 101	W 1 - 2 (1.185 mi.)	Q78	282
Not reported Facility ID: 526368	HIAWATHA BOULEVARD A	ESE 1 - 2 (1.231 mi.)	S88	294

Lower Elevation	Address	Direction / Distance	Map ID	Page
PAY MORE RECYCLE & S Facility ID: 646714 Facility ID: 630869	***2278 E BROCKDALE RD***	***E 1/2 - 1 (0.719 mi.)***	***B10***	***17***
PRIVATE RESIDENCE Facility ID: 102939	855 E JOHNS PRAIRIE	ESE 1 - 2 (1.024 mi.)	42	81
Not reported Facility ID: 554855	100 WALLACE KNEELAND	S 1 - 2 (1.140 mi.)	O67	262
ARCO Facility ID: 528614	106 EAST WALLACE KNE	SSW 1 - 2 (1.235 mi.)	T98	331
Not reported Facility ID: 94989		ENE 1 - 2 (1.252 mi.)	102	333
NEAR: Facility ID: 103387	1347 E JOHNS PRAIRIE	E 1 - 2 (1.263 mi.)	V107	335
VEHICLE OWNER Facility ID: 538614 Facility ID: 647431	301 EAST WALLACE KNE	S 1 - 2 (1.302 mi.)	X114	340
Not reported Facility ID: 629484	E 250 HIAWATHA BLVD	SE 1 - 2 (1.338 mi.)	126	359
BURGERMASTER SHELL F Facility ID: 616062	***3001 OLYMPIC HWY N***	***S 1 - 2 (1.348 mi.)***	***AA131***	***363***
PUD #3 Facility ID: 621906	120 BRAMBLE LANE	NE 1 - 2 (1.403 mi.)	145	382
Not reported Facility ID: 603262	2921 N VIEW CIRCLE	S 1 - 2 (1.455 mi.)	AF159	417
BONNEVILLE POWER ADM Facility ID: 501139 Facility ID: 602368	***2508 OLYMPIC HWY N***	***S 1 - 2 (1.520 mi.)***	***AI174***	***452***
Not reported Facility ID: 609709	1892 E JOHNS PRAIRIE	E 1 - 2 (1.560 mi.)	178	468
Not reported	1890 E JOHN PRAIRIE	E 1 - 2 (1.590 mi.)	AK180	474

Facility ID: 633378				
MASON COUNTY PUD #3 Facility ID: 547205	116 K ST	S 1 - 2 (1.593 mi.)	AM184	479
UNKNOWN Facility ID: 632953 Facility ID: 560081	***2505 OLYMPIC HIGHWAY***	***S 1 - 2 (1.612 mi.)***	***AN187***	***485***
Not reported Facility ID: 560081	2505 OLYMPIC HWY #20	S 1 - 2 (1.612 mi.)	AN188	487
MASON COUNTY PUD #3 Facility ID: 633376	116 W K STREET	S 1 - 2 (1.629 mi.)	190	488
Not reported Facility ID: 647341	161 JOHNS CREEK DRIV	E 1 - 2 (1.641 mi.)	AP194	493
Not reported Facility ID: 554953	1707 NORTHCLIFF RD	SSE 1 - 2 (1.695 mi.)	205	509
MASON CO PUD # 3 Facility ID: 615799	237 PROFFESSIONAL AW	SSE 1 - 2 (1.725 mi.)	222	532
Not reported Facility ID: 555154	809 TERRACE BLVD	SSE 1 - 2 (1.749 mi.)	AZ228	536
PUD Facility ID: 620758	801 TERRACE BLVD	SSE 1 - 2 (1.755 mi.)	AZ229	537

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/25/2019 has revealed that there are 15 RCRA NonGen / NLR sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OLYMPIC FABRICATION EPA ID:: WAH000038030	410 W ENTERPRISE RD	WSW 1 - 2 (1.046 mi.)	H48	89
SANDERSON INDUSTRIAL EPA ID:: WAH000015958	***430 W ENTERPRISE RD***	***WSW 1 - 2 (1.076 mi.)***	***I51***	***92***
SUNRISE FIBERGLASS E EPA ID:: WAD103362448	***W 171 SANDERSON WAY***	***W 1 - 2 (1.144 mi.)***	***N69***	***263***
REPAIRS PLUS EPA ID:: WAD988521217	***E 1022 JOHNS PRAIRIE***	***ESE 1 - 2 (1.147 mi.)***	***P71***	***269***
OLYMPIC TOOL ENGINEE EPA ID:: WAD988498499	***W 21 SANDERSON WAY***	***W 1 - 2 (1.156 mi.)***	***N73***	***273***
SHELTON PORT BUSINES EPA ID:: WAD988515805	***W 410 BUSINESS PARK***	***W 1 - 2 (1.425 mi.)***	***AD157***	***406***
WA AGR MASON 1	***751 A W FAIRGROUNDS***	***SW 1 - 2 (1.519 mi.)***	***170***	***429***

EPA ID:: WAH000015826

TRANSFORMER SVC CO EPA ID:: WAD980977854	***PORT OF SHELTON SAND***	***SW 1 - 2 (1.739 mi.)***	***AX223***	***533***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO EPA ID:: WAD988510756	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C19***	***32***
BPA RIGHT OF WAY PAI EPA ID:: WAD988504973	***200 YDS NW OF E 1892***	***SE 1 - 2 (1.038 mi.)***	***45***	***85***
BARNES MACHINE INC EPA ID:: WAH000012211	***790 E JOHNS PRAIRIE***	***ESE 1 - 2 (1.096 mi.)***	***J53***	***104***
ARCO 82609 EPA ID:: WAR000007260	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T97***	***324***
BELCO FOREST PRODUCT EPA ID:: WAH000033711	1890 E JOHNS PRAIRIE	E 1 - 2 (1.590 mi.)	AK181	474
MASON CNTY PUD 3 EPA ID:: WAR000002923	***116 E K ST***	***S 1 - 2 (1.596 mi.)***	***AM186***	***480***
WA DOT SKOKOMISH RIV EPA ID:: WAR000009720	***SR 101 MP 338.77***	***SSW 1 - 2 (1.668 mi.)***	***AS202***	***501***

PADS: The PCB Activity Database identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the United States Environmental Protection Agency of such activities. The source of this database is the U.S. EPA.

A review of the PADS list, as provided by EDR, and dated 03/20/2019 has revealed that there are 2 PADS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PORT OF SHELTON EPAID:: WAW000000590	430 W. ENTERPRISE RD	WSW 1 - 2 (1.076 mi.)	I52	103
VACANT EPAID:: WAW000000178	450 W. ENTERPRISE RD	SW 1 - 2 (1.112 mi.)	I59	151

ICIS: The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, and dated 11/18/2016 has revealed that there are 3 ICIS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PORT OF SHELTON ALL FRS ID:: 110056487626	***21 W SANDERSON WAY***	***W 1 - 2 (1.020 mi.)***	***G40***	***80***
SUNRISE FIBERGLASS E FRS ID:: 110002150813	171 W SANDERSON WAY	W 1 - 2 (1.215 mi.)	R87	292

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO	***3740 SHELTON SPGS RD***	***S 1/2 - 1 (0.903 mi.)***	***C16***	***29***

EXECUTIVE SUMMARY

FRS ID:: 110005378457

FTTS: FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS list, as provided by EDR, has revealed that there are 2 FTTS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SUNRISE FIBERGLASS E	***W 171 SANDERSON WAY***	***W 1 - 2 (1.213 mi.)***	***R85***	***290***
Database: FTTS INSP, Date of Government Version: 04/09/2009				
PORT OF SHELTON	***450 W BUSINESS PARK***	***W 1 - 2 (1.364 mi.)***	***AB137***	***378***
Database: FTTS INSP, Date of Government Version: 04/09/2009				

HIST FTTS: A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

A review of the HIST FTTS list, as provided by EDR, has revealed that there are 2 HIST FTTS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SUNRISE FIBERGLASS E	***W 171 SANDERSON WAY***	***W 1 - 2 (1.213 mi.)***	***R85***	***290***
Database: HIST FTTS INSP, Date of Government Version: 10/19/2006				
PORT OF SHELTON	***450 W BUSINESS PARK***	***W 1 - 2 (1.364 mi.)***	***AB137***	***378***
Database: HIST FTTS INSP, Date of Government Version: 10/19/2006				

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 02/15/2019 has revealed that there are 80 FINDS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHERRY PARK WATER SY	***E ISLAND LAKE RD***	***SW 1/2 - 1 (0.522 mi.)***	***2***	***10***
Registry ID:: 110013059812				
WOODLAND MANOR WATER	***E WOODLAND DR***	***SSW 1/2 - 1 (0.561 mi.)***	***3***	***10***

Registry ID:: 110013092456				
HIDDEN HAVEN MOBILE	***1700 E SHELTON SPRIN***	***WSW 1/2 - 1 (0.933 mi.)***	***23***	***58***
Registry ID:: 110013033822				
AIRPORT GROCERY STOR	11900 HWY 101	SW 1/2 - 1 (0.949 mi.)	D25	59
Registry ID:: 110015427144				
OLYMPIC AIR INC	11771 N HWY 101	SW 1/2 - 1 (0.968 mi.)	F36	76
Registry ID:: 110015383244				
PORT OF SHELTON ALL	***21 W SANDERSON WAY***	***W 1 - 2 (1.020 mi.)***	***G40***	***80***
Registry ID:: 110056487626				
WA317943733 - P U D	43 W. SANDERSON WAY	W 1 - 2 (1.032 mi.)	G43	82
Registry ID:: 110070296325				
SHELTON FLIGHT INC	***HWY 101 SANDERSON FI***	***SSW 1 - 2 (1.034 mi.)***	***44***	***82***
Registry ID:: 110015389523				
SHELTON PORT	***400 W ENTERPRISE RD***	***WSW 1 - 2 (1.043 mi.)***	***H46***	***87***
Registry ID:: 110000739130				
WA317947476 - TRUFAB	***410 W ENTERPRISE RD***	***WSW 1 - 2 (1.046 mi.)***	***H47***	***88***
Registry ID:: 110070345994				
Registry ID:: 110045002894				
GREEN CROW SHELTON L	12721 US HWY 101	W 1 - 2 (1.047 mi.)	50	92
Registry ID:: 110015548380				
SANDERSON INDUSTRIAL	***430 W ENTERPRISE RD***	***WSW 1 - 2 (1.076 mi.)***	***I51***	***92***
Registry ID:: 110012561076				
TECHWOOD	121 W ENTERPISE RD A	WSW 1 - 2 (1.106 mi.)	56	150
Registry ID:: 110070325103				
SHELTON WATER RECLAM	10891 SR101	SSW 1 - 2 (1.127 mi.)	L62	155
Registry ID:: 110040164309				
REPAIRS PLUS	***E 1022 JOHNS PRAIRIE***	***ESE 1 - 2 (1.146 mi.)***	***P70***	***268***
Registry ID:: 110005386670				
DAYTON AIRPORT RD WA	***DAYTON AIRPORT, SHEL***	***W 1 - 2 (1.184 mi.)***	***Q77***	***281***
Registry ID:: 110046454047				
DON SMALL & SONS OIL	***150 W SANDERSON WAY***	***W 1 - 2 (1.190 mi.)***	***R82***	***284***
Registry ID:: 110015431601				
SUNRISE FIBERGLASS E	***171 W SANDERSON WAY***	***W 1 - 2 (1.215 mi.)***	***R86***	***291***
Registry ID:: 110002150813				
WA317947269 - WHISKE	21 ADONAI CT	ESE 1 - 2 (1.250 mi.)	S101	333
Registry ID:: 110070345073				
DAVES PERFORMANCE MA	1341 E JOHNS PRAIRIE	E 1 - 2 (1.260 mi.)	V103	334
Registry ID:: 110040598939				
WA317946698 - SSI CA	820 E HIAWATHA BLVD	ESE 1 - 2 (1.291 mi.)	109	336
Registry ID:: 110070306044				
MASON COUNTY GARBAGE	81 WILBUR WAY	E 1 - 2 (1.318 mi.)	Y122	353
Registry ID:: 110037068936				
WA317948377 - OLYMPI	822 E HIAWATHA BLVD	ESE 1 - 2 (1.343 mi.)	129	362
Registry ID:: 110070309097				
SHELTON MUNICIPAL AI	410 W BUSINESS PARK	W 1 - 2 (1.359 mi.)	AB133	365
Registry ID:: 110067121126				
PORT OF SHELTON	450 W BUSINESS PARK	W 1 - 2 (1.364 mi.)	AB136	377

Registry ID:: 110011620488				
AERO CONTROLS INC SA Registry ID:: 110005374086	W 231 SANDERSON WAY	W 1 - 2 (1.367 mi.)	138	378
GREEN DIAMOND RESOUR Registry ID:: 110022929205	521 W BUSINESS PARK	W 1 - 2 (1.368 mi.)	AB142	380
SHELTON PORT BUSINES Registry ID:: 110005382488	***W 410 BUSINESS PARK***	***W 1 - 2 (1.404 mi.)***	***AD146***	***383***
MASON CNTY CENTRAL S Registry ID:: 110038118266	***100 W PUBLIC WORKS D***	***WNW 1 - 2 (1.406 mi.)***	***AE149***	***388***
MASON COUNTY PUBLIC Registry ID:: 110039226129	100 PUBLIC WORKS DR	WNW 1 - 2 (1.406 mi.)	AE152	404
WA AGR MASON 1 Registry ID:: 110012561003	***751A WEST FAIRGROUND***	***SW 1 - 2 (1.414 mi.)***	***154***	***404***
WA DOT SHELTON 633 Registry ID:: 110015424183	***W 633 DAYTON AIRPORT***	***W 1 - 2 (1.590 mi.)***	***182***	***478***
UPPER MOUNTAIN VIEW Registry ID:: 110067180339	***S OF HWY 101***	***WNW 1 - 2 (1.593 mi.)***	***AL185***	***480***
SANDERSON FIELD Registry ID:: 110037978025	UNKNOWN	SW 1 - 2 (1.626 mi.)	189	488
CANYON RIVER SHOP Registry ID:: 110015542386	SE1/4 S24 T21N RTW W	SSE 1 - 2 (1.649 mi.)	AQ196	498
SHELTON PRINT482 11T Registry ID:: 110015506834	PACIFIC DIVISION UST	SSE 1 - 2 (1.649 mi.)	AQ197	498
CAMP GRISDALE Registry ID:: 110015452561	NE1/4 S31 T22N RTW W	SSE 1 - 2 (1.649 mi.)	AQ198	498
MATLOCK SHOP Registry ID:: 110015554336	50 MATLOCK DECKERVIL	SSE 1 - 2 (1.719 mi.)	AV220	531
FIR CREEK WORK CENTE Registry ID:: 110015490887	S3 T21N R5W NW1/4	SSE 1 - 2 (1.719 mi.)	AV221	532
TRANSFORMER SVC CO Registry ID:: 110011638692	***SANDERSON INDUSTRIAL***	***SW 1 - 2 (1.739 mi.)***	***AX224***	***534***
AERO CONTROLS INC DA Registry ID:: 110005383548	W 520 DAYTON AIRPORT	W 1 - 2 (1.740 mi.)	AW225	535
WA WSP ACADEMY Registry ID:: 110005372060	***W 631 DAYTON AIRPORT***	***W 1 - 2 (1.825 mi.)***	***232***	***538***

Lower Elevation	Address	Direction / Distance	Map ID	Page
WILSON RECYCLING Registry ID:: 110040599046 Registry ID:: 110064831491	***2278 E BROCKDALE RD***	***E 1/2 - 1 (0.719 mi.)***	***B13***	***28***
MASON COUNTY TRANSPO Registry ID:: 110005378457	***3740 SHELTON SPGS RD***	***S 1/2 - 1 (0.903 mi.)***	***C16***	***29***
HIAWATHA INC Registry ID:: 110015422639	***681 E JOHNS PRAIRIE***	***SE 1/2 - 1 (0.963 mi.)***	***E35***	***71***
OAK PARK WATER SYSTE Registry ID:: 110013013069	***E OAK PARK WAY***	***ENE 1 - 2 (1.018 mi.)***	***39***	***79***
BPA RIGHT OF WAY PAI	***200 YDS NW OF E 1892***	***SE 1 - 2 (1.038 mi.)***	***45***	***85***

Registry ID:: 110008224625				
BARNES MACHINE INC Registry ID:: 110005398104	***790 E JOHNS PRAIRIE***	***ESE 1 - 2 (1.096 mi.)***	***J53***	***104***
MASON COUNTY TRANSPO Registry ID:: 110054937431	790 E JOHNS PRAIRIE	ESE 1 - 2 (1.096 mi.)	J54	109
ROSAND DAM Registry ID:: 110015453953		E 1 - 2 (1.111 mi.)	K58	151
TRANSMISSIONS PLUS A Registry ID:: 110056478547	31 E VANCE CT	ESE 1 - 2 (1.130 mi.)	M63	155
WAL MART STORE 2121 Registry ID:: 110005399764	***100 E WALLACE KNEELA***	***S 1 - 2 (1.140 mi.)***	***O66***	***160***
WAL MART TIRE & LUBE Registry ID:: 110040341895	100 E WALLACE KNEELA	S 1 - 2 (1.140 mi.)	O68	263
GRADENS SHELTON CHEV Registry ID:: 110015486277	***701 E WALLACE KNEELA***	***S 1 - 2 (1.173 mi.)***	***75***	***280***
ARCO 82609 Registry ID:: 110006461006	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T97***	***324***
APEX COLLISION SERVI Registry ID:: 110056461975	1347 E JOHNS PRAIRIE	E 1 - 2 (1.263 mi.)	V105	334
US WEST SOC Registry ID:: 110015469660	140 BELL LN	S 1 - 2 (1.302 mi.)	W112	339
JAMES FOOD MART Registry ID:: 110015429767 Registry ID:: 110056469325	301 E WALLACE KNEELA	S 1 - 2 (1.302 mi.)	X115	341
L & R DIESEL SERVICE Registry ID:: 110015484117	***211 BELL LN***	***S 1 - 2 (1.305 mi.)***	***W121***	***352***
GOOSE LAKE Registry ID:: 110009314410	NW OF SHELTON OFF HW	SSW 1 - 2 (1.341 mi.)	Z128	362
BURGERMASTER SHELL F Registry ID:: 110015485795	3001 OLYMPIC HWY N	S 1 - 2 (1.348 mi.)	AA130	362
SIMPSON COMMUNITY CR Registry ID:: 110015930340	2948 OLYMPIC HWY N	S 1 - 2 (1.374 mi.)	AC143	380
OIL CAN HENRYS SHELT Registry ID:: 110040598911	2919 OLYMPIC HWY N	S 1 - 2 (1.419 mi.)	AF155	405
ADVANCED AUTOMOTIVE Registry ID:: 110040341822	2921 NORTHVIEW CIR	S 1 - 2 (1.455 mi.)	AF158	416
MASON GENERAL HOSPIT Registry ID:: 110020791491	M.G. HOSP., 901 MTN.	SSE 1 - 2 (1.482 mi.)	163	418
SHELTON ELEMENTARY Registry ID:: 110070254957	***402 E K ST***	***S 1 - 2 (1.496 mi.)***	***AH165***	***425***
MASON CO PUD 3 MT VI Registry ID:: 110067357648	350 E L ST	S 1 - 2 (1.503 mi.)	AG167	426
BONNEVILLE POWER ADM Registry ID:: 110038118685	2508 OLYMPIC HWY N	S 1 - 2 (1.520 mi.)	AI171	447
MASON GENERAL HOSPIT Registry ID:: 110043378056	901 MOUNTAIN VIEW DR	S 1 - 2 (1.559 mi.)	AJ176	455
BELCO FOREST PRODUCT	***1890 E JOHNS PRAIRIE***	***E 1 - 2 (1.590 mi.)***	***AK179***	***469***

Registry ID:: 110037370109				
MASON CNTY PUD 3 Registry ID:: 110005400299	***116 E K ST***	***S 1 - 2 (1.596 mi.)***	***AM186***	***480***
GLENN CUSTOM MILLING Registry ID:: 110015535900	1892 JOHNS PRAIRIE R	E 1 - 2 (1.637 mi.)	193	493
SHELTON VETERINARY H Registry ID:: 110056455991	104 E J ST	S 1 - 2 (1.658 mi.)	AR200	499
WA DOT SKOKOMISH RIV Registry ID:: 110006140791	***SR 101 MP 338.77***	***SSW 1 - 2 (1.669 mi.)***	***AS203***	***504***
PUBLIC UTILITY DIST Registry ID:: 110015458360	***HWY 101 & K ST***	***S 1 - 2 (1.680 mi.)***	***AT204***	***504***
HOOD CANAL COMMUNICA Registry ID:: 110015387151	2218 OLYMPIC HWY N	S 1 - 2 (1.697 mi.)	AU206	510
SHELTON TEXACO Registry ID:: 110015444740	2235 OLYMPIC HWY N	S 1 - 2 (1.700 mi.)	AR209	512
JACKPOT FOOD MART 36 Registry ID:: 110015475724	2210 OLYMPIC HWY N	S 1 - 2 (1.707 mi.)	AU213	517
MASON GENERAL HOSPIT Registry ID:: 110041536255	UNKNOWN	SSE 1 - 2 (1.709 mi.)	216	520
D & L AUTOMOTIVE & M Registry ID:: 110040599536	2033 OLYMPIC HWY N	S 1 - 2 (1.815 mi.)	BA230	537

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 04/07/2019 has revealed that there are 29 ECHO sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHERRY PARK WATER SY Registry ID: 110013059812	***E ISLAND LAKE RD***	***SW 1/2 - 1 (0.522 mi.)***	***2***	***10***
WOODLAND MANOR WATER Registry ID: 110013092456	***E WOODLAND DR***	***SSW 1/2 - 1 (0.561 mi.)***	***3***	***10***
HIDDEN HAVEN MOBILE Registry ID: 110013033822	***1700 E SHELTON SPRIN***	***WSW 1/2 - 1 (0.933 mi.)***	***23***	***58***
PORT OF SHELTON ALL Registry ID: 110056487626	***21 W SANDERSON WAY***	***W 1 - 2 (1.020 mi.)***	***G40***	***80***
SHELTON PORT Registry ID: 110000739130	***400 W ENTERPRISE RD***	***WSW 1 - 2 (1.043 mi.)***	***H46***	***87***
WA317947476 - TRUFAB Registry ID: 110045002894	***410 W ENTERPRISE RD***	***WSW 1 - 2 (1.046 mi.)***	***H47***	***88***
SANDERSON INDUSTRIAL Registry ID: 110012561076	***430 W ENTERPRISE RD***	***WSW 1 - 2 (1.076 mi.)***	***I51***	***92***
REPAIRS PLUS Registry ID: 110005386670	***E 1022 JOHNS PRAIRIE***	***ESE 1 - 2 (1.146 mi.)***	***P70***	***268***
DAYTON AIRPORT RD WA	***DAYTON AIRPORT, SHEL***	***W 1 - 2 (1.184 mi.)***	***Q77***	***281***

Registry ID: 110046454047				
SUNRISE FIBERGLASS E Registry ID: 110002150813	***171 W SANDERSON WAY***	***W 1 - 2 (1.215 mi.)***	***R86***	***291***
SHELTON PORT BUSINES Registry ID: 110005382488	***W 410 BUSINESS PARK***	***W 1 - 2 (1.404 mi.)***	***AD146***	***383***
MASON CNTY CENTRAL S Registry ID: 110038118266	***100 W PUBLIC WORKS D***	***WNW 1 - 2 (1.406 mi.)***	***AE149***	***388***
WA AGR MASON 1 Registry ID: 110012561003	***751A WEST FAIRGROUND***	***SW 1 - 2 (1.414 mi.)***	***154***	***404***
UPPER MOUNTAIN VIEW Registry ID: 110067180339	***S OF HWY 101***	***WNW 1 - 2 (1.593 mi.)***	***AL185***	***480***
AERO CONTROLS INCORP Registry ID: 110005383548	520 W DAYTON AIRPORT	W 1 - 2 (1.717 mi.)	AW219	531
TRANSFORMER SVC CO Registry ID: 110011638692	***SANDERSON INDUSTRIAL***	***SW 1 - 2 (1.739 mi.)***	***AX224***	***534***
WA WSP ACADEMY Registry ID: 110005372060	***W 631 DAYTON AIRPORT***	***W 1 - 2 (1.825 mi.)***	***232***	***538***

Lower Elevation	Address	Direction / Distance	Map ID	Page
WILSON RECYCLING Registry ID: 110040599046	***2278 E BROCKDALE RD***	***E 1/2 - 1 (0.719 mi.)***	***B13***	***28***
WILSON RECYCLING Registry ID: 110064831491	2278 E BROCKDALE RD	E 1/2 - 1 (0.719 mi.)	B14	29
MASON COUNTY TRANSPO Registry ID: 110005378457	***3740 SHELTON SPGS RD***	***S 1/2 - 1 (0.903 mi.)***	***C16***	***29***
OAK PARK WATER SYSTE Registry ID: 110013013069	***E OAK PARK WAY***	***ENE 1 - 2 (1.018 mi.)***	***39***	***79***
BPA RIGHT OF WAY PAI Registry ID: 110008224625	***200 YDS NW OF E 1892***	***SE 1 - 2 (1.038 mi.)***	***45***	***85***
BARNES MACHINE INC Registry ID: 110005398104	***790 E JOHNS PRAIRIE***	***ESE 1 - 2 (1.096 mi.)***	***J53***	***104***
WAL MART STORE 2121 Registry ID: 110005399764	***100 E WALLACE KNEELA***	***S 1 - 2 (1.140 mi.)***	***O66***	***160***
ARCO 82609 Registry ID: 110006461006	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T97***	***324***
SHELTON ELEMENTARY Registry ID: 110070254957	***402 E K ST***	***S 1 - 2 (1.496 mi.)***	***AH165***	***425***
BELCO FOREST PRODUCT Registry ID: 110037370109	***1890 E JOHNS PRAIRIE***	***E 1 - 2 (1.590 mi.)***	***AK179***	***469***
MASON CNTY PUD 3 Registry ID: 110005400299	***116 E K ST***	***S 1 - 2 (1.596 mi.)***	***AM186***	***480***
WA DOT SKOKOMISH RIV Registry ID: 110006140791	***SR 101 MP 338.77***	***SSW 1 - 2 (1.669 mi.)***	***AS203***	***504***

EXECUTIVE SUMMARY

WA AIRS: State of Washington, Department of Ecology, Washington Emissions Data System.

A review of the WA AIRS list, as provided by EDR, and dated 12/31/2017 has revealed that there are 2 WA AIRS sites within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ARCO AMPM - SHELTON	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T94***	***313***
ACE PAVING CO INC	E 4801 BROCKDALE RD	N 1 - 2 (1.634 mi.)	AO192	489

WA ASBESTOS: Asbestos sites

A review of the WA ASBESTOS list, as provided by EDR, and dated 03/21/2019 has revealed that there are 12 WA ASBESTOS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	11840 HWY 101	SW 1/2 - 1 (0.953 mi.)	33	66
SHELTON MUNICIPAL AI	***410 W BUSINESS PARK***	***W 1 - 2 (1.359 mi.)***	***AB134***	***365***
Not reported	430 W. BUSINESS PARK	W 1 - 2 (1.362 mi.)	AB135	373

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	2201 E. ISLAND LK. D	ESE 1/2 - 1 (0.567 mi.)	4	11
Not reported	3737 SHELTON SPRINGS	SSW 1/2 - 1 (0.716 mi.)	A8	14
Not reported	534 EAST K STREET	S 1 - 2 (1.494 mi.)	AH164	419
HOUSE	2421 LAUREL ST	S 1 - 2 (1.516 mi.)	169	427
MASON GENERAL HOSPIT	***901 MOUNTAIN VIEW DR***	***S 1 - 2 (1.559 mi.)***	***AJ177***	***455***
UNKNOWN	***2505 OLYMPIC HIGHWAY***	***S 1 - 2 (1.612 mi.)***	***AN187***	***485***
Not reported	2136 LAUREL ST	S 1 - 2 (1.667 mi.)	201	500
Not reported	2125 WASHINGTON STRE	S 1 - 2 (1.710 mi.)	217	520
Not reported	506 WEST I STREET	S 1 - 2 (1.828 mi.)	233	539

WA Financial Assurance: A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

A review of the WA Financial Assurance list, as provided by EDR, has revealed that there are 8 WA Financial Assurance sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY	***11900 HWY 101***	***SW 1/2 - 1 (0.949 mi.)***	***D27***	***59***
Database: Financial Assurance 1, Date of Government Version: 05/28/2019 DOE Site ID: 100186				
SHELTON BULK PLANT	150 W SANDERSON WAY	W 1 - 2 (1.190 mi.)	R79	282
Database: Financial Assurance 1, Date of Government Version: 05/28/2019 DOE Site ID: 8372				
MASON COUNTY	100 PUBLIC WORKS DR	WNW 1 - 2 (1.406 mi.)	AE153	404
Database: Financial Assurance 1, Date of Government Version: 05/28/2019 DOE Site ID: 619610				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C22***	***52***
Database: Financial Assurance 1, Date of Government Version: 05/28/2019				

DOE Site ID: 331

AM/PM GAS STATION 106 E WALLACE KNEELA SSW 1 - 2 (1.235 mi.) T93 312
Database: Financial Assurance 1, Date of Government Version: 05/28/2019
DOE Site ID: 341849

JAMES FOOD MART 301 E WALLACE KNEELA S 1 - 2 (1.302 mi.) X118 346
Database: Financial Assurance 1, Date of Government Version: 05/28/2019
DOE Site ID: 341193

BURGERMASTER SHELL F ***3001 OLYMPIC HWY N*** ***S 1 - 2 (1.348 mi.)*** ***AA131*** ***363***
Database: Financial Assurance 1, Date of Government Version: 05/28/2019
DOE Site ID: 476293

SHELTON TEXACO ***2235 OLYMPIC HWY N*** ***S 1 - 2 (1.700 mi.)*** ***AR212*** ***515***
Database: Financial Assurance 1, Date of Government Version: 05/28/2019
DOE Site ID: 3720

CA HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the CA HAZNET list, as provided by EDR, and dated 12/31/2017 has revealed that there is 1 CA HAZNET site within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SSD - SHELTON HIGH S GEPAID: WAC981201054	3737 N SHELTON SPRIN	SSW 1/2 - 1 (0.716 mi.)	A7	14

WA MANIFEST: Hazardous waste manifest information.

A review of the WA MANIFEST list, as provided by EDR, and dated 03/29/2019 has revealed that there are 13 WA MANIFEST sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SANDERSON INDUSTRIAL Facility Site ID Number: 56493627 Gen Status CD: XQG Gen Status CD: SQG EPA ID: WAH000015958	***430 W ENTERPRISE RD***	***WSW 1 - 2 (1.076 mi.)***	***I51***	***92***
TACOMA PUBLIC UTILIT Facility Site ID Number: 36292444 Gen Status CD: MQG Gen Status CD: SQG Gen Status CD: LQG EPA ID: WAD988502340	***N 21451 HWY 101***	***W 1 - 2 (1.101 mi.)***	***55***	***109***
REPAIRS PLUS Facility Site ID Number: 89922321 Gen Status CD: XQG EPA ID: WAD988521217	***E 1022 JOHNS PRAIRIE***	***ESE 1 - 2 (1.147 mi.)***	***P71***	***269***
MASON CNTY CENTRAL S	***100 W PUBLIC WORKS D***	***WNW 1 - 2 (1.406 mi.)***	***AE150***	***389***

Facility Site ID Number: 1049634
Gen Status CD: SQG
EPA ID: WAH000034273

SHELTON PORT BUSINES	***W 410 BUSINESS PARK***	***W 1 - 2 (1.425 mi.)***	***AD157***	***406***
Facility Site ID Number: 41855348 Gen Status CD: XQG EPA ID: WAD988515805				
WA AGR MASON 1	***751 A W FAIRGROUNDS***	***SW 1 - 2 (1.519 mi.)***	***170***	***429***
Facility Site ID Number: 81428124 Gen Status CD: XQG EPA ID: WAH000015826				

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C19***	***32***
Facility Site ID Number: 23634752 Gen Status CD: XQG EPA ID: WAD988510756				
MASON COUNTY TRANSPO	***3740 SHELTON SPRINGS***	***S 1/2 - 1 (0.903 mi.)***	***C22***	***52***
Facility Site ID Number: 23634752 Gen Status CD: XQG EPA ID: WAD988510756				
WAL MART STORE 2121	***100 E WALLACE KNEELA***	***S 1 - 2 (1.140 mi.)***	***O66***	***160***
Facility Site ID Number: 13975422 Gen Status CD: MQG Gen Status CD: SQG EPA ID: WAR000002113				
AM/PM GAS STATION	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T89***	***295***
Facility Site ID Number: 64487875 Gen Status CD: XQG Gen Status CD: SQG EPA ID: WAR000007260				
ARCO AMPM - SHELTON	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T94***	***313***
Facility Site ID Number: 64487875 Gen Status CD: XQG EPA ID: WAR000007260				
ARCO 82609	***106 E WALLACE KNEELA***	***SSW 1 - 2 (1.235 mi.)***	***T97***	***324***
Facility Site ID Number: 64487875 Gen Status CD: MQG EPA ID: WAR000007260				
BELCO FOREST PRODUCT	***1890 E JOHNS PRAIRIE***	***E 1 - 2 (1.590 mi.)***	***AK179***	***469***
Facility Site ID Number: 7463982 Gen Status CD: SQG EPA ID: WAH000033711				

WA NPDES: A listing of permitted wastewater facilities.

A review of the WA NPDES list, as provided by EDR, and dated 04/16/2019 has revealed that there are 5 WA NPDES sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELTON WATER RECLAM	***10891 SR101***	***SSW 1 - 2 (1.127 mi.)***	***L61***	***154***

Permit ID: ST0006216

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELTON HIGH SCHOOL Permit ID: WAR306589	***3737 N SHELTON SPRIN***	***SSW 1/2 - 1 (0.716 mi.)***	***A9***	***16***
PAY MORE RECYCLE & S Permit ID: WAR303433	***2278 E BROCKDALE RD***	***E 1/2 - 1 (0.719 mi.)***	***B10***	***17***
SHELTON ELEMENTARY Permit ID: WAR306764	***402 E K ST***	***S 1 - 2 (1.496 mi.)***	***AH166***	***425***
MASON GENERAL HOSPIT Permit ID: WAR307222	***901 MOUNTAIN VIEW DR***	***S 1 - 2 (1.559 mi.)***	***AJ177***	***455***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 8 EDR Hist Auto sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LEES & SONS AUTO SER	71 E BOARDWALK RD	SW 1/2 - 1 (0.597 mi.)	5	13
AIRPORT GROCERY	11900 N US HIGHWAY 1	SW 1/2 - 1 (0.949 mi.)	D28	65

Lower Elevation	Address	Direction / Distance	Map ID	Page
PRESTIGE STATIONS IN	106 E WALLACE KNEELA	SSW 1 - 2 (1.235 mi.)	T92	311
INGRAHAM OIL COMPANY	6 COMET LN	SSE 1 - 2 (1.280 mi.)	108	336
GRADENS SHELTON CHEV	301 E WALLCE KNEELND	S 1 - 2 (1.302 mi.)	X119	347
B & N ENTERPRISES/B	2235 OLYMPIC HWY N	S 1 - 2 (1.700 mi.)	AR211	515
JACK POT GAS STATION	2210 OLYMPIC HWY N	S 1 - 2 (1.707 mi.)	AU214	517
CUZICK ROLAND	2005 OLYMPIC HWY N	S 1 - 2 (1.840 mi.)	BA235	541

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical

Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 1.85 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
KNEELAND PLAZA CLEAN	301 E WALLACE KNEELA	S 1 - 2 (1.302 mi.)	X116	342

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

WA RGA HWS: The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

A review of the WA RGA HWS list, as provided by EDR, has revealed that there are 6 WA RGA HWS sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY STOR Facility ID: 72961678	11900 HWY 101	SW 1/2 - 1 (0.949 mi.)	D26	59
GREEN DIAMOND RESOUR Facility ID: 189457	521 W BUSINESS PARK	W 1 - 2 (1.368 mi.)	AB140	379
GREEN DIAMOND RESOUR Facility ID: 189457	521 W BUSINESS PARK	W 1 - 2 (1.368 mi.)	AB141	380

Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO Facility ID: 23634752	3740 SHELTON SPRINGS	S 1/2 - 1 (0.903 mi.)	C21	52
ARCO 82609 Facility ID: 64487875	106 E WALLACE KNEELA	SSW 1 - 2 (1.235 mi.)	T90	311
BONNEVILLE POWER ADM Facility ID: 9434357	2508 OLYMPIC HWY N	S 1 - 2 (1.520 mi.)	AI172	447

WA RGA LF: The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

A review of the WA RGA LF list, as provided by EDR, has revealed that there are 4 WA RGA LF sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY GARBAGE Facility ID: 1,019	81 WILBUR WAY	E 1 - 2 (1.318 mi.)	Y123	354

Facility ID: 1019

Lower Elevation	Address	Direction / Distance	Map ID	Page
WILSON RECYCLING Facility ID: 1,734 Facility ID: 1734	2278 E. BROCKDALE RD	E 1/2 - 1 (0.719 mi.)	B11	27
BRADYS NURSERY Facility ID: 1,214 Facility ID: 1214	920 E JOHNS PRAIRIE	ESE 1 - 2 (1.237 mi.)	U99	332
SHELTON SATELLITE WW Facility ID: 2928	10891 HIGHWAY 101	S 1 - 2 (1.745 mi.)	AY226	535

WA RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

A review of the WA RGA LUST list, as provided by EDR, has revealed that there are 14 WA RGA LUST sites within approximately 1.85 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AIRPORT GROCERY & Facility ID: 100186	11900 HWY 101	SW 1/2 - 1 (0.949 mi.)	D24	59
AIRPORT GROCERY & DE Facility ID: 100186	11900 HWY 101	SW 1/2 - 1 (0.949 mi.)	D29	65
AIRPORT GROCERY Facility ID: 100186 Facility ID: 100186.0	11900 HWY 101	SW 1/2 - 1 (0.949 mi.)	D30	66
AIRPORT GROCERY DELI Facility ID: 4981	11900 HIGHWAY 101	SW 1/2 - 1 (0.949 mi.)	D31	66
TOSCO CORPORATION Facility ID: 8372	150 W SANDERSON	W 1 - 2 (1.190 mi.)	R80	283
SANDERSON FIELD/INDU Facility ID: 8372	150 W SANDERSON	W 1 - 2 (1.190 mi.)	R84	290

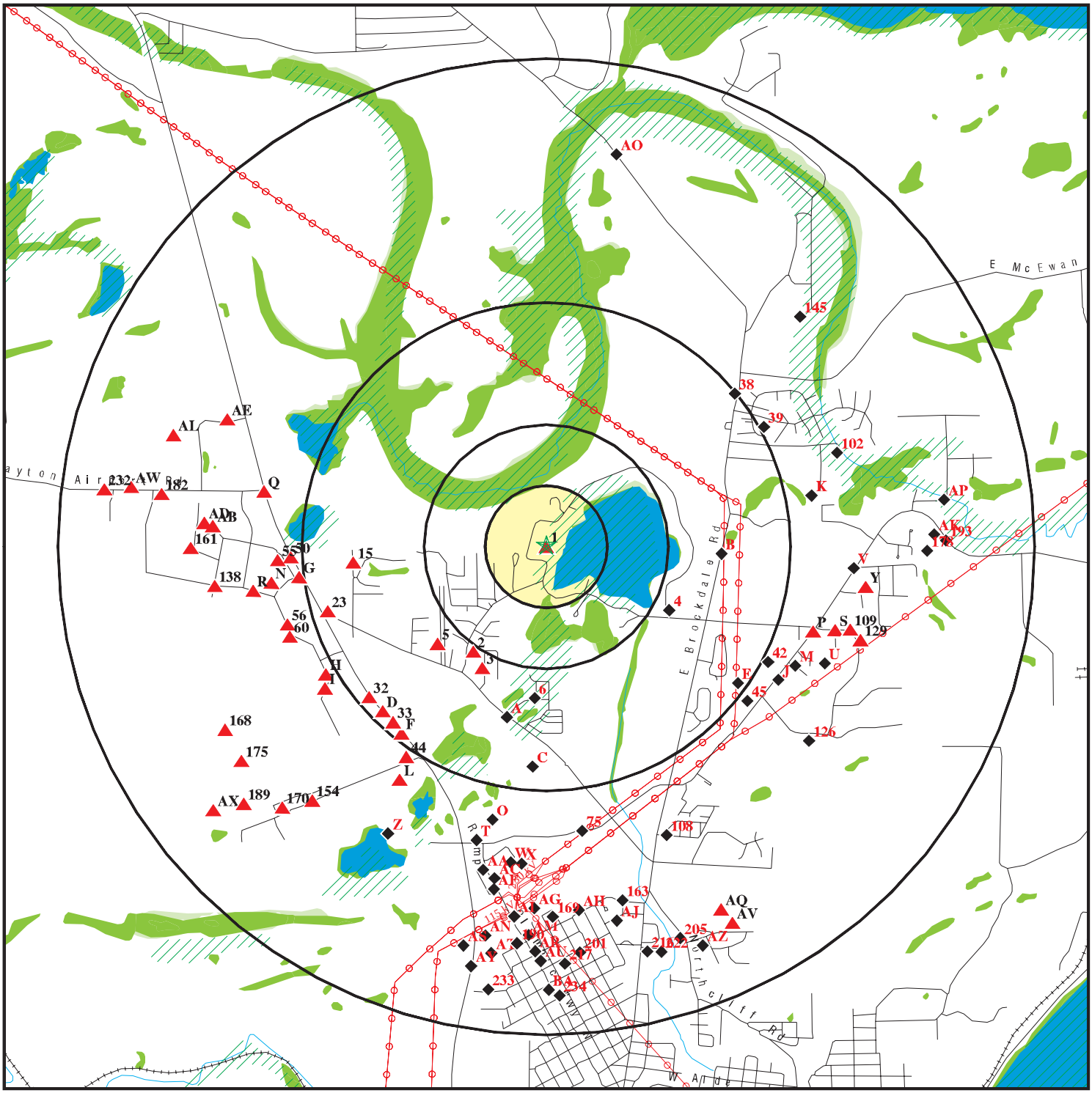
Lower Elevation	Address	Direction / Distance	Map ID	Page
MASON COUNTY TRANSPO Facility ID: 23634752	3740 SHELTON SPRINGS	S 1/2 - 1 (0.903 mi.)	C17	31
MASON COUNTY TRANSPO Facility ID: 331 Facility ID: 331.0	3740 SHELTON SPRINGS	S 1/2 - 1 (0.903 mi.)	C18	31
MASON COUNTY TRANSPO Facility ID: 5247	3740 SHELTON SPRINGS	S 1/2 - 1 (0.903 mi.)	C20	52
HIAWATHA INC Facility ID: 75267324	681 E JOHNS PRAIRIE	SE 1/2 - 1 (0.963 mi.)	E34	71
ARCO AM/PM MINI MARK	106 E WALLACE KNEELA	SSW 1 - 2 (1.235 mi.)	T91	311

Facility ID: 341849				
AM/PM GAS STATION Facility ID: 341849	106 E WALLACE KNEELA	SSW 1 - 2 (1.235 mi.)	T95	324
ARCO 82609 Facility ID: 64487875	106 E WALLACE KNEELA	SSW 1 - 2 (1.235 mi.)	T96	324
SHELTON SOC 070821 Facility ID: 10463 Facility ID: 2926	140 BELL LN	S 1 - 2 (1.302 mi.)	W113	340

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5712009.2S

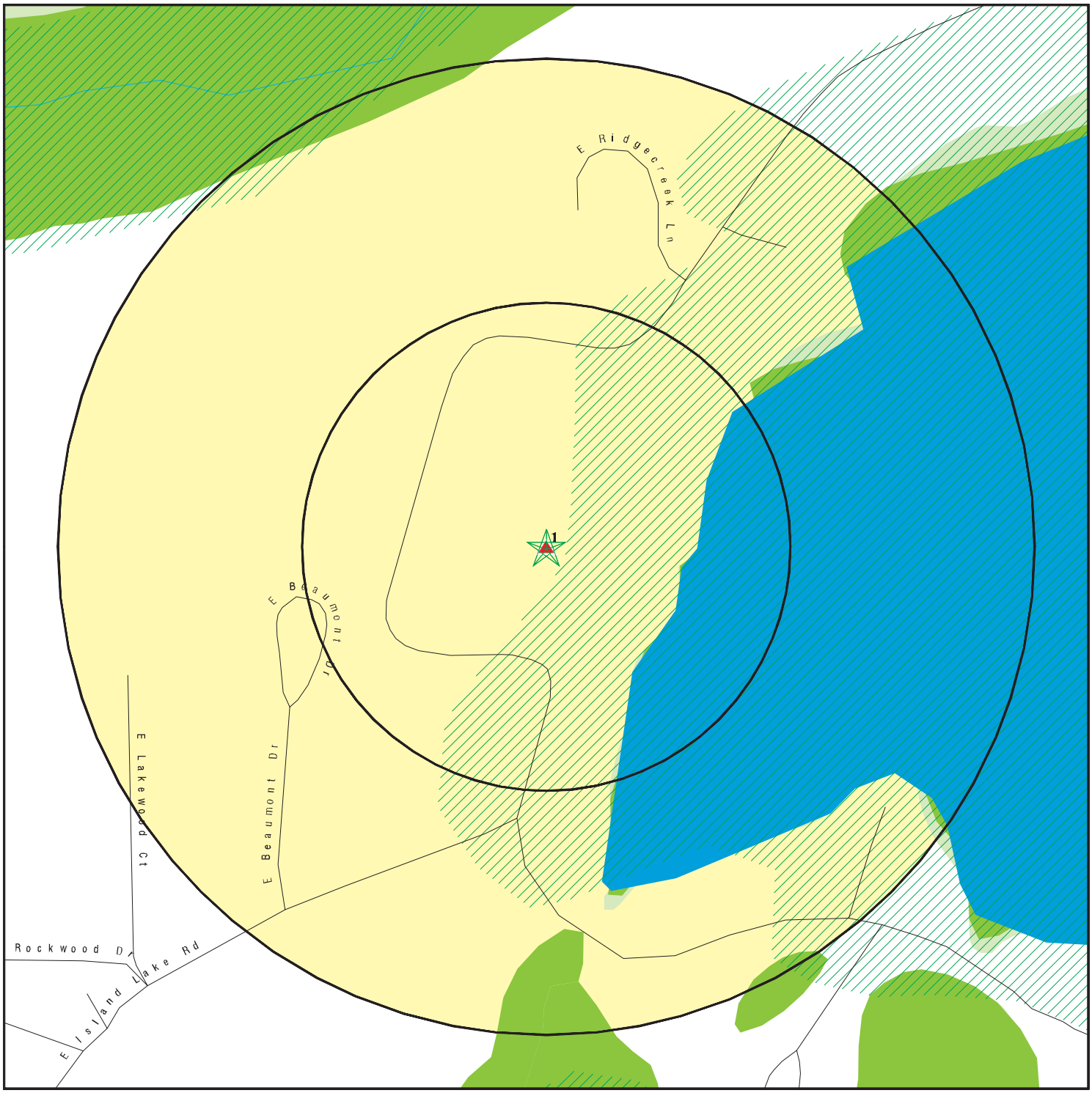


- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 1840-003B Shelton WHPA	CLIENT: Robinson & Noble, Inc.
ADDRESS: 784 E Island Lake Dr Shelton WA 98584	CONTACT: David Weiler
LAT/LONG: 47.248813 / 123.121225	INQUIRY #: 5712009.2s DATE: July 11, 2019 1:19 pm

DETAIL MAP - 5712009.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 1840-003B Shelton WHPA	CLIENT: Robinson & Noble, Inc.
ADDRESS: 784 E Island Lake Dr Shelton WA 98584	CONTACT: David Weiler
LAT/LONG: 47.248813 / 123.121225	INQUIRY #: 5712009.2s DATE: July 11, 2019 1:22 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.850		0	0	0	0	0	0
Proposed NPL	1.850		0	0	0	0	0	0
NPL LIENS	1.850		0	0	0	0	0	0
Federal Delisted NPL site list								
Delisted NPL	1.850		0	0	0	0	0	0
Federal CERCLIS list								
FEDERAL FACILITY	1.850		0	0	0	0	0	0
SEMS	1.850		0	0	0	0	1	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	1.850		0	0	0	0	1	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.850		0	0	0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	1.850		0	0	0	0	0	0
Federal RCRA generators list								
RCRA-LQG	1.850		0	0	0	0	1	1
RCRA-SQG	1.850		0	0	0	0	1	1
RCRA-CESQG	1.850		0	0	0	0	2	2
Federal institutional controls / engineering controls registries								
LUCIS	1.850		0	0	0	0	0	0
US ENG CONTROLS	1.850		0	0	0	0	0	0
US INST CONTROL	1.850		0	0	0	0	0	0
Federal ERNS list								
ERNS	1.850		0	0	0	0	2	2
State- and tribal - equivalent NPL								
WA HSL	1.850		0	0	0	0	3	3
State- and tribal - equivalent CERCLIS								
WA CSCSL	1.850		0	0	0	1	5	6
State and tribal landfill and/or solid waste disposal site lists								
WA SWF/LF	1.850		0	0	0	2	4	6
State and tribal leaking storage tank lists								
WA LUST	1.850		0	0	0	3	4	7

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	1.850		0	0	0	0	0	0
State and tribal registered storage tank lists								
FEMA UST	1.850		0	0	0	0	0	0
WA UST	1.850		0	0	0	4	15	19
WA AST	1.850		0	0	0	0	0	0
INDIAN UST	1.850		0	0	0	0	0	0
State and tribal institutional control / engineering control registries								
WA INST CONTROL	1.850		0	0	0	0	0	0
State and tribal voluntary cleanup sites								
WA ICR	1.850		0	0	0	1	3	4
WA VCP	1.850		0	0	0	1	3	4
INDIAN VCP	1.850		0	0	0	0	0	0
WA PTAP	1.850		0	0	0	0	0	0
State and tribal Brownfields sites								
WA BROWNFIELDS	1.850		0	0	0	0	1	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	1.850		0	0	0	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WA SWTIRE	1.850		0	0	0	0	0	0
WA SWRCY	1.850		0	0	0	1	1	2
INDIAN ODI	1.850		0	0	0	0	0	0
DEBRIS REGION 9	1.850		0	0	0	0	0	0
ODI	1.850		0	0	0	0	0	0
IHS OPEN DUMPS	1.850		0	0	0	0	0	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	1.850		0	0	0	0	0	0
WA ALLSITES	1.850		0	0	0	8	54	62
WA CDL	1.850		0	0	0	0	0	0
WA HIST CDL	1.850		0	0	0	1	1	2
WA CSCSL NFA	1.850		0	0	0	2	4	6
US CDL	1.850		0	0	0	0	0	0
WA PFAS	1.850		0	0	0	0	0	0
Local Land Records								
LIENS 2	1.850		0	0	0	0	0	0
Records of Emergency Release Reports								
HMIRS	1.850		0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
WA SPILLS	1.850		0	0	0	1	25	26
WA SPILLS 90	1.850		0	0	0	0	0	0
Other Ascertainable Records								
RCRA NonGen / NLR	1.850		0	0	0	1	14	15
FUDS	1.850		0	0	0	0	0	0
DOD	1.850		0	0	0	0	0	0
SCRD DRYCLEANERS	1.850		0	0	0	0	0	0
US FIN ASSUR	1.850		0	0	0	0	0	0
EPA WATCH LIST	1.850		0	0	0	0	0	0
2020 COR ACTION	1.850		0	0	0	0	0	0
TSCA	1.850		0	0	0	0	0	0
TRIS	1.850		0	0	0	0	0	0
SSTS	1.850		0	0	0	0	0	0
ROD	1.850		0	0	0	0	0	0
RMP	1.850		0	0	0	0	0	0
RAATS	1.850		0	0	0	0	0	0
PRP	1.850		0	0	0	0	0	0
PADS	1.850		0	0	0	0	2	2
ICIS	1.850		0	0	0	1	2	3
FTTS	1.850		0	0	0	0	2	2
MLTS	1.850		0	0	0	0	0	0
COAL ASH DOE	1.850		0	0	0	0	0	0
COAL ASH EPA	1.850		0	0	0	0	0	0
PCB TRANSFORMER	1.850		0	0	0	0	0	0
RADINFO	1.850		0	0	0	0	0	0
HIST FTTS	1.850		0	0	0	0	2	2
DOT OPS	1.850		0	0	0	0	0	0
CONSENT	1.850		0	0	0	0	0	0
INDIAN RESERV	1.850		0	0	0	0	0	0
FUSRAP	1.850		0	0	0	0	0	0
UMTRA	1.850		0	0	0	0	0	0
LEAD SMELTERS	1.850		0	0	0	0	0	0
US AIRS	1.850		0	0	0	0	0	0
US MINES	1.850		0	0	0	0	0	0
ABANDONED MINES	1.850		0	0	0	0	0	0
FINDS	1.850		0	0	0	8	72	80
ECHO	1.850		0	0	0	6	23	29
UXO	1.850		0	0	0	0	0	0
DOCKET HWC	1.850		0	0	0	0	0	0
FUELS PROGRAM	1.850		0	0	0	0	0	0
WA AIRS	1.850		0	0	0	0	2	2
WA ASBESTOS	1.850	1	0	0	0	3	9	13
WA COAL ASH	1.850		0	0	0	0	0	0
WA DRYCLEANERS	1.850		0	0	0	0	0	0
WA Financial Assurance	1.850		0	0	0	2	6	8
CA HAZNET	1.850		0	0	0	1	0	1
WA Inactive Drycleaners	1.850		0	0	0	0	0	0
WA MANIFEST	1.850		0	0	0	2	11	13
WA NPDES	1.850		0	0	0	2	3	5
WA UIC	1.850		0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.850		0	0	0	0	0	0
EDR Hist Auto	1.850		0	0	0	2	6	8
EDR Hist Cleaner	1.850		0	0	0	0	1	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
WA RGA HWS	1.850		0	0	0	2	4	6
WA RGA LF	1.850		0	0	0	1	3	4
WA RGA LUST	1.850		0	0	0	8	6	14
- Totals --		1	0	0	0	64	299	364

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
Target Property
784 E ISLAND LAKE DR
SHELTON, WA 98584

Actual: 242 ft.

WA ASBESTOS **S119171964**
N/A

ASBESTOS:

Name:	Not reported
Address:	784 E ISLAND LAKE DR
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Residential
Parent ID:	0
Form ID:	107422##1317Advan987721
Notice Date:	10/23/2015
Start Date:	11/19/2015
Completion Date:	11/20/2015
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 AM
Site Hours End:	4:00 p.m.
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1317
Phone:	360-357-5666
Job Site CAS:	Genaro Magana
Project Form Email:	advanceenvironmental@comcast.net
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	SRMGJS LLC
Property Owner Address:	784 E Island Lake Dr
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-490-5264
Job Site Room:	Not reported
Facility Age:	1900
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	500
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported

(Continued) **S119171964**

Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	1
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2015-10-23 11:23:34
Submitter IP Address:	73.221.74.245
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1317
Contractor UBI:	602306184
Contractor Priority:	M
Contractor Cris Num:	ADVANEI972MH
Contractor Name:	Advance Environmental Inc
Contractor Status:	Active
Contact Name:	Dan Venable
Contact Phone:	3603575666
Contact Fax:	3603575665
Contractor Cert Prn Date:	2016-08-25 00:00:00
Contractor Original Date:	02/01/2001
Contractor Effective Date:	08/13/2009

(Continued) **S119171964**

Contractor Renewal Letter Date:	06/21/2016
Contractor Exp Date:	08/22/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	34
Contractor Street Address:	3620 49TH AVE SW
Contractor City:	OLYMPIA
Contractor State:	WA
Contractor Zip:	98512
Contractor Phone:	3603575666
Contractor Email:	advanceenvironmental@comcast.net
Contractor Web Address:	Not reported
Contractor Mail Street Address:	3620 49TH AVE SW
Contractor Mail City:	OLYMPIA
Contractor Mail State:	WA
Contractor Mail Zip:	98512
Contractor Memo:	Not reported

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2 **CHERRY PARK WATER SYSTEM** **FINDS** **1024010671**
SW **E ISLAND LAKE RD** **ECHO** **N/A**
1/2-1 **SHELTON, WA 98584**
0.522 mi.
2758 ft.

Relative:
Higher

Actual:
255 ft.

FINDS:

Registry ID: 110013059812

Environmental Interest/Information System
COMMUNITY WATER SYSTEM

Click this hyperlink while viewing on your computer to access
additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1024010671
Registry ID:	110013059812
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110013059812

---

3 **WOODLAND MANOR WATER SYSTEM** **FINDS** **1024010728**
SSW **E WOODLAND DR** **ECHO** **N/A**
1/2-1 **SHELTON, WA 98584**
0.561 mi.
2960 ft.

Relative:
Higher

Actual:
245 ft.

FINDS:

Registry ID: 110013092456

Environmental Interest/Information System
COMMUNITY WATER SYSTEM

Click this hyperlink while viewing on your computer to access
additional FINDS: detail in the EDR Site Report.

WOODLAND MANOR WATER SYSTEM (Continued) **1024010728**

ECHO:

Envid:	1024010728
Registry ID:	110013092456
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110013092456

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4 **WA ASBESTOS** **S119166988**
ESE **2201 E. ISLAND LK. DR.** **N/A**
1/2-1 **SHELTON, WA 98584**
0.567 mi.
2993 ft.

Relative: **Lower**

Actual: **236 ft.**

ASBESTOS:

Name:	Not reported
Address:	2201 E. ISLAND LK. DR.
City,State,Zip:	SHELTON, WA 98584
Facility Type:	House
Parent ID:	0
Form ID:	83706##1532TACOM003032
Notice Date:	04/11/2014
Start Date:	04/17/2014
Completion Date:	04/18/2014
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:30 AM
Site Hours End:	3:30pm
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1532
Phone:	253-830-5945
Job Site CAS:	Matthew Ware
Project Form Email:	mmiller@tacomaabatement.com
Property Owner Name:	Vonda Drougmund
Property Owner Agent:	Not reported
Property Owner Company:	Not reported
Property Owner Address:	2201 E. Island Lk. Dr.
Property Owner City:	Shelton
Property Owner State:	Wa
Property Owner Zip4:	98409
Property Owner Phone:	253-830-5945
Job Site Room:	Not reported
Facility Age:	1969
Facility Size:	1200
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	80

(Continued) **S119166988**

Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Water damage to kitchen, dining room and laundry rm. Owner is displaced all sheet vinyl flooring needs to come out. I left a message with Wendy Drapeau asking for a 10 day waiver.
Date Time Submitted:	2014-04-11 10:17:53
Submitter IP Address:	69.10.218.22
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1532

(Continued) **S119166988**

Contractor UBI:	603144219
Contractor Priority:	M
Contractor Cris Num:	TACOMAC894PE
Contractor Name:	TACOMA ABATEMENT CO LLC
Contractor Status:	Active
Contact Name:	Adriana Head
Contact Phone:	2538305945
Contact Fax:	2532760267
Contractor Cert Prn Date:	2016-10-06 00:00:00
Contractor Original Date:	10/17/2011
Contractor Effective Date:	10/17/2011
Contractor Renewal Letter Date:	07/19/2016
Contractor Exp Date:	10/05/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	27
Contractor Street Address:	5111 S BURLINGTON WAY
Contractor City:	TACOMA
Contractor State:	WA
Contractor Zip:	98409
Contractor Phone:	2538305945
Contractor Email:	info@tacomaabatement.com
Contractor Web Address:	www.tacomaabatement.com
Contractor Mail Street Address:	5111 S BURLINGTON WAY
Contractor Mail City:	TACOMA
Contractor Mail State:	WA
Contractor Mail Zip:	98409
Contractor Memo:	Not reported

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5 **LEES & SONS AUTO SERVICE** **EDR Hist Auto** **1020706709**
SW **71 E BOARDWALK RD** **N/A**
1/2-1 **SHELTON, WA 98584**
0.597 mi.
3150 ft.

Relative: EDR Hist Auto
Higher

Actual: **271 ft.**

Year:	Name:	Type:
1987	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1988	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1989	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1990	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1991	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1992	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1993	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1994	LEES & SONS AUTO SERVICE	General Automotive Repair Shops
1995	LEE & SONS AUTO SERVICE	General Automotive Repair Shops
1996	LEE & SONS AUTO SERVICE	General Automotive Repair Shops
2003	CUSTOM TRANSMISSIONS AND AUTO	Automotive Transmission Repair Shops
2004	CUSTOM TRANSMISSIONS AND AUTO	Automotive Transmission Repair Shops
2005	CUSTOM TRANSMISSIONS AND AUTO	Automotive Transmission Repair Shops

6
South
1/2-1
0.622 mi.
3282 ft.

SHELTON SPRINGS
SHELTON, WA 98584

WA ALLSITES **S122493322**
N/A

Relative:
Lower

Actual:
233 ft.

ALLSITES:

Facility Name:	SHELTON SPRINGS
Facility Id:	55191

A7
SSW
1/2-1
0.716 mi.
3782 ft.

SSD - SHELTON HIGH SCHOOL
3737 N SHELTON SPRINGS RD
SHELTON, WA 98584

Site 1 of 3 in cluster A

CA HAZNET **S113185904**
N/A

Relative:
Lower

Actual:
233 ft.

HAZNET:

Name:	SSD - SHELTON HIGH SCHOOL
Address:	3737 N SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 985840000
Year:	1999
GEPAID:	WAC981201054
Contact:	SHELTON SCHOOL DISTRICT
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	207 N 9TH ST
Mailing City,St,Zip:	SHELTON, WA 985840000
Gen County:	99
TSD EPA ID:	CAD044429835
TSD County:	Los Angeles
Tons:	0.0075
CA Waste Code:	151-Asbestos containing waste
Method:	D99-Disposal, Other
Facility County:	99

A8
SSW
1/2-1
0.716 mi.
3782 ft.

3737 SHELTON SPRINGS RD
SHELTON, WA

Site 2 of 3 in cluster A

WA ASBESTOS **S123247923**
N/A

Relative:
Lower

Actual:
233 ft.

ASBESTOS:

Name:	Not reported
Address:	3737 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	130189#1200271179
Notice Date:	09/21/2018
Start Date:	09/15/2018
Completion Date:	09/25/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported

(Continued) **S123247923**

Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	ABCN00001669
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	RSG ABATEMENT & DMLTN CORP (TACOMA)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported

(Continued) **S123247923**

Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	4
UBI:	604274440
Notice type:	Emergency
Project Type:	Cement Asbestos Pipe
Supervisor:	Jeff Hanson
Supervisor Phone:	ABAS0027904
Certificate Status:	A

A9 **SHELTON HIGH SCHOOL** **WA ALLSITES** **S122493232**
SSW **3737 N SHELTON SPRINGS RD** **WA NPDES** **N/A**
1/2-1 **SHELTON, WA 98584**
0.716 mi.
3782 ft. **Site 3 of 3 in cluster A**

Relative:
Lower

Actual:
233 ft.

ALLSITES:

Facility Name:	SHELTON HIGH SCHOOL
Facility Id:	48180

NPDES:

Name:	SHELTON HIGH SCHOOL
Address:	3737 N SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584
Facility Status:	Not reported
Facility Type:	Construction SW GP
Admin Region:	Headqarters
Date Issued:	11/18/2015
Latitude:	Not reported
Longitude:	Not reported
Permit ID:	WAR306589
Permit Version:	Not reported
Permit Status:	Active
Permit SubStatus:	Not reported
Ecology Contact:	Not reported
WRIA:	Not reported
Permit Expiration Date:	12/31/2020
Effective Date:	05/24/2018
Days to Expiration:	-625

B10 **PAY MORE RECYCLE & SALVAGE** **WA SWRCY** **S110275820**
East **2278 E BROCKDALE RD** **WA ALLSITES** **N/A**
1/2-1 **SHELTON, WA 98584** **WA SPILLS**
0.719 mi. **WA NPDES**
3798 ft. **Site 1 of 5 in cluster B**

Relative:
Lower

Actual:
238 ft.

SWRCY:

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Computers & laptops
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Automotive
Material Accepted:	Cars, RV s & trailers
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Metal
Material Accepted:	Aluminum
Contact Name:	Denise Schupbach

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Metal
Material Accepted:	Tin, steel cans
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Automotive
Material Accepted:	Car batteries
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Material Category:	Metal
Material Accepted:	Other metals
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Appliances
Material Accepted:	Large appliances
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Monitors
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Tablets
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Portable DVD players
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Televisions (TVs)
Contact Name:	Denise Schupbach
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in!

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Computers & laptops
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Portable DVD players
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Automotive
Material Accepted:	Car batteries
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils,

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Metal
Material Accepted:	Other metals
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Appliances
Material Accepted:	Large appliances
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Televisions (TVs)
Contact Name:	Denise Schupbach

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Tablets
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Electronics
Material Accepted:	Monitors
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Automotive
Material Accepted:	Cars, RV s & trailers
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Metal
Material Accepted:	Aluminum
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	PAY MORE RECYCLE AND SALVAGE
Address:	2278 E. BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1389
Service:	Pay More Recycle and Salvage - Shelton
Phone:	360-462-6800
Extension:	Not reported
Website:	http://www.pmrecycle.com/home.html
Email:	denise@pmrecycle.com
Material Category:	Metal
Material Accepted:	Tin, steel cans
Contact Name:	Denise Schupbach
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Fri, 9am-5pm
Comments:	Help us help the environment! Please drain all materials of oils, fuels and fluids before bringing in! Small businesses with less than 50 employees can use the E-Cycle WA program.

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

ALLSITES:

Facility Name:	WILSON RECYCLING
Facility Id:	2932

Interaction:	96762
Interaction 1:	I
Interaction 2:	INDSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Wilson Recycling
Program ID:	WAR125109
Date Interaction:	2011-04-15 00:00:00
Date Interaction 3:	Industrial SW GP
Latitude:	47.251055485000002
Longitude:	-123.105152069

Interaction:	91160
Interaction 1:	A
Interaction 2:	RECOVERY
Ecology Program:	SOLIDWASTE
Program Data:	SWFD
Facility Alt.:	Wilson Recycling
Program ID:	Not reported
Date Interaction:	1900-01-01 00:00:00
Date Interaction 3:	Energy Recovery
Latitude:	47.251055485000002
Longitude:	-123.105152069

Interaction:	100754
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Wilson Recycling LLC
Program ID:	Not reported
Date Interaction:	2011-02-25 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.251055485000002
Longitude:	-123.105152069

Interaction:	115033
Interaction 1:	A
Interaction 2:	INDSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Pay More Recycle & Salvage
Program ID:	WAR303433
Date Interaction:	2015-09-18 00:00:00
Date Interaction 3:	Industrial SW GP
Latitude:	47.251055485000002
Longitude:	-123.105152069

Interaction:	115626

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Interaction 1:	A
Interaction 2:	RSVP
Ecology Program:	HAZWASTE
Program Data:	RSVP
Facility Alt.:	Wilson Recycling
Program ID:	Not reported
Date Interaction:	2015-03-12 00:00:00
Date Interaction 3:	Revised Site Visit Progra
Latitude:	47.251055485000002
Longitude:	-123.105152069

SPILLS:

Name:	Not reported
Address:	2278 E BROCKDALE RD
City,State,Zip:	SHELTON, WA
Facility ID:	646714
Medium:	SOIL
Material Desc:	RADIOACTIVE
Material Qty:	3
Material Units:	EACH
Date Received:	Not reported
Contact Name:	Unknown
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

Name:	DAVID BAKER
Address:	2278 E BROCKDALE
City,State,Zip:	SHELTON, WA
Facility ID:	630869
Medium:	OTHER
Material Desc:	OTHER - SEE NOTE
Material Qty:	1
Material Units:	OTHER
Date Received:	12/09/2011
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported

PAY MORE RECYCLE & SALVAGE (Continued) **S110275820**

Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

NPDES:
Name: PAY MORE RECYCLE & SALVAGE
Address: 2278 E BROCKDALE RD
City,State,Zip: SHELTON, WA 98584
Facility Status: Not reported
Facility Type: Industrial SW GP
Admin Region: Headqarters
Date Issued: 12/03/2014
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR303433
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2019
Effective Date: 10/13/2015
Days to Expiration: -259

B11 **WILSON RECYCLING** **WA RGA LF** **S115352809**
East **2278 E. BROCKDALE RD** **N/A**
1/2-1 **SHELTON, WA**
0.719 mi.
3798 ft. **Site 2 of 5 in cluster B**

Relative: RGA LF:
Lower

2012	WILSON RECYCLING	2278 E. BROCKDALE RD
2011	WILSON RECYCLING	2278 E. BROCKDALE RD
2010	WILSON RECYCLING	2278 E. BROCKDALE RD
2009	WILSON RECYCLING	2278 E. BROCKDALE RD

Actual:
238 ft.

B12 **WILSON RECYCLING** **WA SWF/LF** **S110335951**
East **2278 E BROCKDALE RD** **N/A**
1/2-1 **SHELTON, WA 98584**
0.719 mi.
3798 ft. **Site 3 of 5 in cluster B**

Relative: SWF/LF:
Lower
Name: WILSON RECYCLING
Address: 2278 E BROCKDALE RD
Actual: City,State,Zip: SHELTON, WA 98584
238 ft. Facility ID: 3207
Region: STATE
Permit Status: Exempt
Contact Organization: Wilson Recycling LLC
Contact Address1: Mailing - 573 W Lakeside Dr
Contact Address2: Facility - 2278 E Brockdale Rd
Contact City: Shelton
Contact State: WA
Contact Postal: 98584
Contact EMail: wilsonrecycling@gmail.com
Contact Phone: (360) 462-4444

WILSON RECYCLING (Continued) **S110335951**

Contact Phone Ext:	Not reported
Permit No:	Not reported
Phone:	360-462-4444
Operator Name:	Not reported
Operator Organization:	Wilson Recycling LLC
Operator EMail:	Not reported
Operator Title:	Not reported
Recycle Survey Code:	7329
Ownership:	PRIVATE
Facility Type:	Material Recovery Facility (exempt)
Contact Name:	Scott Wilson
Contact Title:	Owner/Operator
Year Closed:	2014
Open to Public Flag:	No
Website:	Not reported
Latitude:	Not reported
Longitude:	Not reported

B13 **WILSON RECYCLING** **FINDS** **1012222278**
East **2278 E BROCKDALE RD** **ECHO** **N/A**
1/2-1 **SHELTON, WA 98584**
0.719 mi.
3798 ft. **Site 4 of 5 in cluster B**

Relative: Lower

Actual: 238 ft.

FINDS:

Registry ID: 110040599046

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Registry ID: 110064831491

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that

WILSON RECYCLING (Continued) **1012222278**

discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1012222278
Registry ID: 110040599046
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110040599046

B14
East
1/2-1
0.719 mi.
3798 ft.

WILSON RECYCLING **ECHO** **1018353432**
2278 E BROCKDALE RD **N/A**
SHELTON, WA 98584

Site 5 of 5 in cluster B

Relative:
Lower

Actual:
238 ft.

ECHO:
Envid: 1018353432
Registry ID: 110064831491
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110064831491

15
West
1/2-1
0.792 mi.
4182 ft.

WA HIST CDL **S107566069**
310 E. BLEVINS RD. **N/A**
SHELTON, WA 98584

Relative:
Higher

Actual:
283 ft.

HIST CDL:
Facility ID: 93010
Tax ID Number: 42001-50-00006
Contamination Date: 11/25/1993
Remediation Date: 12/07/95

C16
South
1/2-1
0.903 mi.
4767 ft.

MASON COUNTY TRANSPORTATION COOP **ICIS** **1016206245**
3740 SHELTON SPGS RD **FINDS** **N/A**
SHELTON, WA 98584 **ECHO**

Site 1 of 7 in cluster C

Relative:
Lower

Actual:
234 ft.

ICIS:
Enforcement Action ID: 10-2010-0141
FRS ID: 110005378457
Action Name: MASON COUNTY TRANSPORTATION COOPERATIVE
Facility Name: MASON COUNTY TRANSPORTATION COOP
Facility Address: 3740 SHELTON SPGS RD
SHELTON, WA 98584
Enforcement Action Type: RCRA 9006 AO For Comp And/Or Pen (UST) - UST Expedited Settlement Program
Facility County: MASON
Program System Acronym: RCRAINFO

MASON COUNTY TRANSPORTATION COOP (Continued) **1016206245**

Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 9006E
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 47.238607
Longitude in Decimal Degrees: -123.124335
Permit Type Desc: Not reported
Program System Acronym: WAD988510756
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Facility Name: MASON COUNTY TRANSPORTATION COOP
Address: 3740 SHELTON SPGS RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: MASON COUNTY TRANSPORTATION COOP
Address: 3740 SHELTON SPGS RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: MASON COUNTY TRANSPORTATION COOP
Address: 3740 SHELTON SPGS RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: MASON COUNTY TRANSPORTATION COOP
Address: 3740 SHELTON SPGS RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

FINDS:

Registry ID: 110005378457

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

MASON COUNTY TRANSPORTATION COOP (Continued) **1016206245**

corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016206245
Registry ID: 110005378457
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005378457

C17 **MASON COUNTY TRANSPORTATION COOP** **WA RGA LUST** **S115438728**
South **3740 SHELTON SPRINGS RD** **N/A**
1/2-1 **SHELTON, WA**
0.903 mi.
4767 ft. **Site 2 of 7 in cluster C**

Relative: RGA LUST:
Lower

2012	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2011	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD

Actual:
234 ft.

C18 **MASON COUNTY TRANSPORTATION COOPERATIV** **WA RGA LUST** **S115438729**
South **3740 SHELTON SPRINGS RD** **N/A**
1/2-1 **SHELTON, WA**
0.903 mi.
4767 ft. **Site 3 of 7 in cluster C**

Relative: RGA LUST:
Lower

2010	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2009	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2008	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2007	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2006	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2005	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2004	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2003	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2002	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2001	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
2000	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
1999	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
1998	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS RD
1997	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON

Actual:
234 ft.

MASON COUNTY TRANSPORTATION COOPERATIV (Continued) **S115438729**

SPRINGS RD

C19
South
1/2-1
0.903 mi.
4767 ft.

MASON COUNTY TRANSPORTATION COOP
3740 SHELTON SPRINGS RD
SHELTON, WA 98584

Site 4 of 7 in cluster C

WA CSCSL **1000838308**
WA LUST **WAD988510756**
WA ALLSITES
RCRA NonGen / NLR
WA MANIFEST

Relative:
Lower

Actual:
234 ft.

CSCSL:

Facility ID:	23634752
Region:	Southwest
Lat/Long:	47.237029282 / -123.12045616
Brownfield Status:	Not reported
Rank Status:	N
Clean Up Siteid:	5731
Site Status:	Cleanup Started
PSI?:	Not reported
Contaminant Name:	Petroleum-Other
Ground Water:	Below MTCA Cleanup Level After Assessment
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Level
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Responsible Unit:	Southwest

LUST:

Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	23634752
Lust Status Type:	LUST - Cleanup Started
Cleanup Site ID:	5731
Cleanup Unit Type:	Upland
Process Type:	Independent Action
Cleanup Unit Name:	Mason Cnty Transp Coop,MASON COUNTY TRANSPORTATION COOPERATIV
Response Section:	Southwest
Release Date:	06/15/1994
Lust Date:	06/15/1994
Region:	Southwest
Lust ID:	3441
UST ID:	331
Contaminant Name:	Petroleum-Other
Ground Water:	Below Cleanup Levels
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Levels
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.2370292 / -123.12045

ALLSITES:

Facility Name:	MASON COUNTY TRANSPORTATION COOP
Facility Id:	23634752

Interaction:	33322
Interaction 1:	A
Interaction 2:	HWOTHER

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	MASON COUNTY TRANSPORTATION COOP
Program ID:	WAD988510756
Date Interaction:	2003-12-31 00:00:00
Date Interaction 3:	Haz Waste Management Acti
Latitude:	47.237024791000003
Longitude:	-123.120443221

Interaction:	117539
Interaction 1:	A
Interaction 2:	SCS
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	MASON COUNTY TRANSPORTATION COOP
Program ID:	Not reported
Date Interaction:	1994-06-05 00:00:00
Date Interaction 3:	State Cleanup Site
Latitude:	47.237024791000003
Longitude:	-123.120443221

Interaction:	33319
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	331
Date Interaction:	1985-01-01 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.237024791000003
Longitude:	-123.120443221

Interaction:	33320
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAD988510756
Date Interaction:	1992-08-19 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.237024791000003
Longitude:	-123.120443221

Interaction:	33323
Interaction 1:	I
Interaction 2:	VOLCLNST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	MASON COUNTY TRANSPORTATION COOP
Program ID:	SW0579
Date Interaction:	2004-05-14 00:00:00

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.237024791000003
Longitude: -123.120443221

Interaction: 33321
Interaction 1: A
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 331
Date Interaction: 1994-06-15 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.237024791000003
Longitude: -123.120443221

RCRA NonGen / NLR:
Date form received by agency: 02/12/2018
Facility name: MASON COUNTY TRANSPORTATION COOP
Facility address: 3740 SHELTON SPRINGS RD
SHELTON, WA 98584
EPA ID: WAD988510756
Mailing address: 700 1ST ST
SHELTON, WA 98584
Contact: HOLLY TUCKER
Contact address: 700 1ST ST
SHELTON, WA 98584
Contact country: US
Contact telephone: 360-426-3182
Contact email: HTUCKER@SHELTONSCHOOLS.ORG
EPA Region: 10
Land type: Other land type
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: MASON COUNTY TRANSPORTATION COOPERATIVE
Owner/operator address: 700 SOUTH FIRST STREET
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-3182
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MASON CNTY
Owner/operator address: 3740 SHELTON SPGS RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-3182

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/03/1996
Owner/Op end date: Not reported

Owner/operator name: SHELTON SCH DIST 309
Owner/operator address: 700 1ST ST
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1687
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/24/2017
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/07/2016
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/05/2015
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/27/2014
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/08/2013

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 03/09/2012
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 03/09/2012
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/01/2012
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/01/2012
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/01/2012
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/01/2012
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/28/2011
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/28/2011
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/08/2010
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/08/2010
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/02/2009
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 12/31/2008
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/22/2008
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 04/11/2007
Site name: MASON COUNTY TRANSPORTATION COOP

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Classification: Not a generator, verified

Date form received by agency: 04/11/2007
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/27/2006
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 12/31/2005
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/25/2005
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 12/31/2004
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 03/02/2004
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 01/17/2003
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/25/2002
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/23/2001
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/16/2000
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 02/16/1999
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Date form received by agency: 10/05/1998
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 06/04/1997
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/1994
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Small Quantity Generator

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Date form received by agency: 01/01/1994
Site name: MASON COUNTY TRANSPORTATION COOP
Classification: Not a generator, verified

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 05/28/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

WA MANIFEST:

Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	we are a cooperative of three school districts which operate as Mason County Transportation
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Holly Tucker
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	HTucker@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	we area cooperative of three school district which operates as Mason County Transportation
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360)426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	we are a cooperative of three school districts which operates as Mason County Transportation
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	we are a cooperative of three school districts which operates in Mason County
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	We are a cooperative of three school districts which operates in Mason County
Data Year:	2014
Permit by Rule:	False

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	We are a Cooperative of three school districts which operates in Mason County
Data Year:	2013
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	We are a Cooperative of three school districts which operates in Mason County
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	we are a cooperative of three school districts which operates in Mason County
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	we are a cooperative of four school district which operates in Mason County
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584-9105
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	48541
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	we are a cooperative of five school distrcits which opeartes in Mason County
Data Year:	2008
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason Co Transp Coop
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported
Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False

MASON COUNTY TRANSPORTATION COOP (Continued) **1000838308**

Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Click this hyperlink while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

C20 **MASON COUNTY TRANSPORTATION COOPERATIV** **WA RGA LUST** **S115438730**
South **3740 SHELTON SPRINGS ROAD** **N/A**
1/2-1 **SHELTON, WA**
0.903 mi.
4767 ft. **Site 5 of 7 in cluster C**

Relative: **Lower**
Actual: **234 ft.**

RGA LUST:

1995	MASON COUNTY TRANSPORTATION COOPERATIV	3740 SHELTON SPRINGS ROAD

C21 **MASON COUNTY TRANSPORTATION COOP** **WA RGA HWS** **S115343966**
South **3740 SHELTON SPRINGS RD** **N/A**
1/2-1 **SHELTON, WA**
0.903 mi.
4767 ft. **Site 6 of 7 in cluster C**

Relative: **Lower**
Actual: **234 ft.**

RGA HWS:

2012	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2011	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2010	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2009	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2008	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2007	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2006	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2005	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD
2004	MASON COUNTY TRANSPORTATION COOP	3740 SHELTON SPRINGS RD

C22 **MASON COUNTY TRANSPORTATION COOPERATIV** **WA UST** **U004040724**
South **3740 SHELTON SPRINGS RD** **WA Financial Assurance** **N/A**
1/2-1 **SHELTON, WA 98584** **WA MANIFEST**
0.903 mi.
4767 ft. **Site 7 of 7 in cluster C**

Relative: **Lower**
Actual: **234 ft.**

UST:

Facility ID:	23634752
Site Id:	331
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.237029281763903
Decimal Longitude:	-123.12045616136
Tank Name:	1
Tag Number:	A4620, A8968
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1985
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	07/01/1995

MASON COUNTY TRANSPORTATION COOPERATIV (Continued) **U004040724**

Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	A4620, A8968
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1985
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	07/01/1995
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	3
Tag Number:	A4620, A8968
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1985
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	07/01/1995
Tank Upgrade Date:	Not reported

MASON COUNTY TRANSPORTATION COOPERATIV (Continued) **U004040724**

Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	4
Tag Number:	A4620, A8968
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1985
Tank Closure Date:	Not reported
Capacity Range:	2,001 to 4,999 Gallons
Tank Permit Expiration Date:	06/30/1999
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	None
Tank Overfill Prevention:	None
Tank Material:	Not reported
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	None
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	No Piping Attached to Tank
Pipe Primary Release Detection:	Other
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Product Removed by Reclaimer
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	5
Tag Number:	A4620, A8968
Tank Status:	Exempt
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1985
Tank Closure Date:	Not reported
Capacity Range:	111 TO 1,100 Gallons
Tank Permit Expiration Date:	08/07/1996
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported

MASON COUNTY TRANSPORTATION COOPERATIV (Continued) **U004040724**

Tank Overfill Prevention:	Not reported
Tank Material:	Concrete
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	6
Tag Number:	A4620, A8968
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1994
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	06/30/2018
Tank Upgrade Date:	04/12/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Every 5 Years
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Safe Suction
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	7
Tag Number:	A4620, A8968
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1994
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	06/30/2018
Tank Upgrade Date:	04/12/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)

MASON COUNTY TRANSPORTATION COOPERATIV (Continued) **U004040724**

Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Every 5 Years
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Safe Suction
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

WA Financial Assurance 1:

Name:	MASON COUNTY TRANSPORTATION COOPERATIV
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	331
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	05/31/2016
Expiration Date:	07/12/2017
Address 2:	Not reported
Policy Number:	BTA 9989740-04
Effective Date:	05/31/2016
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.237029282
Longitude:	-123.12045616

Name:	MASON COUNTY TRANSPORTATION COOPERATIV
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	331
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	06/01/2017
Expiration Date:	07/12/2018
Address 2:	Not reported
Policy Number:	BTA 9989740-05
Effective Date:	06/01/2017
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.237029282
Longitude:	-123.12045616

Name:	MASON COUNTY TRANSPORTATION COOPERATIV
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	331
Financial Resp Type:	GREAT AMERICAN E&S INSURANCE CO
Inception Date:	07/11/2018

MASON COUNTY TRANSPORTATION COOPERATIV (Continued) **U004040724**

Expiration Date:	07/12/2019
Address 2:	Not reported
Policy Number:	BTA 9989740-06
Effective Date:	07/11/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.237029282
Longitude:	-123.12045616

WA MANIFEST:

Name:	MASON COUNTY TRANSPORTATION COOP
Address:	3740 SHELTON SPRINGS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	23634752
EPA ID:	WAD988510756
NAICS:	485410
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	We are a cooperative of Three School Districts which Opearte in Mason county
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002116
Business Type:	School Bus Transportation
Mail Name:	Mason County Transportation Co-op
Mailing Address:	700 1st St
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Mason Cnty
Legal Organization Type:	Other
Legal Contact:	Not reported
Legal Address:	3740 SHELTON SPGS RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	(360) 426-3182
Legal Effective Date:	05/03/1996
Land Organization Name:	Shelton Sch Dist 309
Land Organization Type:	Other
Land Contact:	Not reported

MASON COUNTY TRANSPORTATION COOPERATIV (Continued) **U004040724**

Land Address:	700 1st St
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1687
Operator Organization Name:	Mason County Transportation Cooperative
Operator Organization Type:	Other
Operator:	Not reported
Operator Address:	700 South First Street
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	360-426-3182
Operator Effective Date:	12/31/1993
Site Contact:	Sandi Thompson
Site Contact Address:	700 1st St
Contact City,State,Zip:	SHELTON, WA 98584
Site Contact Phone Number:	(360)426-3182
Site Contact Email:	SThompson@sheltonSchools.org
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

23
WSW
1/2-1
0.933 mi.
4926 ft.

HIDDEN HAVEN MOBILE HOME PARK WATER SYSTEM **FINDS** **1008031946**
1700 E SHELTON SPRINGS RD **ECHO** **N/A**
SHELTON, WA 98584

Relative:
Higher

Actual:
285 ft.

FINDS:

Registry ID: 110013033822

Environmental Interest/Information System
COMMUNITY WATER SYSTEM

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1008031946
Registry ID:	110013033822
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110013033822

D24
SW
1/2-1
0.949 mi.
5010 ft.

AIRPORT GROCERY &
11900 HWY 101
SHELTON, WA

Site 1 of 8 in cluster D

WA RGA LUST **S115429149**
N/A

Relative:
Higher

Actual:
295 ft.

RGA LUST:

1996	AIRPORT GROCERY &	11900 HWY 101

D25
SW
1/2-1
0.949 mi.
5010 ft.

AIRPORT GROCERY STORE
11900 HWY 101
SHELTON, WA 98584

Site 2 of 8 in cluster D

FINDS **1007066135**
N/A

Relative:
Higher

Actual:
295 ft.

FINDS:

Registry ID: 110015427144

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

D26
SW
1/2-1
0.949 mi.
5010 ft.

AIRPORT GROCERY STORE
11900 HWY 101
SHELTON, WA

Site 3 of 8 in cluster D

WA RGA HWS **S115340150**
N/A

Relative:
Higher

Actual:
295 ft.

RGA HWS:

2005	AIRPORT GROCERY STORE	11900 HWY 101
2004	AIRPORT GROCERY STORE	11900 HWY 101

D27
SW
1/2-1
0.949 mi.
5010 ft.

AIRPORT GROCERY
11900 HWY 101
SHELTON, WA 98584

Site 4 of 8 in cluster D

WA LUST **U003352284**
WA UST **N/A**
WA VCP
WA ICR
WA ALLSITES
WA CSCSL NFA
WA Financial Assurance

Relative:
Higher

Actual:
295 ft.

LUST:

Name:	AIRPORT GROCERY STORE
Address:	11900 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility ID:	72961678
Lust Status Type:	LUST - NFA
Cleanup Site ID:	6577

AIRPORT GROCERY (Continued) **U003352284**

Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	AIRPORT GROCERY,Rosen Enterprises Inc
Response Section:	Southwest
Release Date:	01/03/1994
Lust Date:	09/16/2003
Region:	Southwest
Lust ID:	3223
UST ID:	100186
Contaminant Name:	Petroleum-Other
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Levels
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.24468 / -123.14018

UST:

Facility ID:	72961678
Site Id:	100186
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.244680000000002
Decimal Longitude:	-123.14018

Tank Name:	1
Tag Number:	A1449
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/30/1990
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Dielectric Coated Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Sacrificial Anode and Interior Lining
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	A1449
Tank Status:	Operational

AIRPORT GROCERY (Continued) **U003352284**

Tank Status Date:	8/6/1996
Tank Install Date:	00/30/1990
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Dielectric Coated Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Sacrificial Anode and Interior Lining
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	3
Tag Number:	A1449
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/30/1990
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Dielectric Coated Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Sacrificial Anode and Interior Lining
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	4
Tag Number:	A1449
Tank Status:	Operational
Tank Status Date:	8/6/1996

AIRPORT GROCERY (Continued) **U003352284**

Tank Install Date:	00/30/1990
Tank Closure Date:	Not reported
Capacity Range:	2,001 to 4,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Dielectric Coated Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Sacrificial Anode and Interior Lining
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

VCP:

edr_fstat:	WA
edr_fzip:	98584
edr_fcnty:	MASON
edr_zip:	Not reported
Facility ID:	72961678
VCP Status:	Not reported
VCP:	Yes
Ecology Status:	Not reported
NFA Type:	Not reported
Date NFA:	9/16/2003
Rank:	Not reported
Cleanup Siteid:	6577

ICR:

Date Ecology Received Report:	01/04/94
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Waste Management:	Tank
Region:	South Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	93-16
County Code:	23
Contact:	Not reported
Report Title:	Not reported

ALLSITES:

Facility Name:	AIRPORT GROCERY STORE
Facility Id:	72961678

Interaction:	61058
Interaction 1:	I
Interaction 2:	VOLCLNST

AIRPORT GROCERY (Continued) **U003352284**

Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	AIRPORT GROCERY STORE
Program ID:	Not reported
Date Interaction:	1993-12-15 00:00:00
Date Interaction 3:	Voluntary Cleanup Sites
Latitude:	47.244674488999998
Longitude:	-123.140165064

Interaction:	61060
Interaction 1:	A
Interaction 2:	ENFORFNL
Ecology Program:	TOXICS
Program Data:	DMS
Facility Alt.:	Not reported
Program ID:	Not reported
Date Interaction:	2005-08-31 00:00:00
Date Interaction 3:	Enforcement Final
Latitude:	47.244674488999998
Longitude:	-123.140165064

Interaction:	61059
Interaction 1:	I
Interaction 2:	LUST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Not reported
Program ID:	100186
Date Interaction:	1994-01-03 00:00:00
Date Interaction 3:	LUST Facility
Latitude:	47.244674488999998
Longitude:	-123.140165064

Interaction:	61057
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Airport Grocery
Program ID:	100186
Date Interaction:	1990-06-30 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.244674488999998
Longitude:	-123.140165064

CSCSL NFA:

Name:	AIRPORT GROCERY STORE
Address:	11900 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility/Site Id:	72961678
CS Id:	6577
NFA Date:	09/16/2003
Alternate Site Names:	AIRPORT GROCERY,Rosen Enterprises Inc

AIRPORT GROCERY (Continued) **U003352284**

NFA Reason:	NFA-Voluntary Cleanup Program Review
Site Status:	NFA
Region:	Southwest
Contaminant Name:	Petroleum-Other
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Levels
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Latitude:	47.24468
Longitude:	-123.14018

WA Financial Assurance 1:

Name:	AIRPORT GROCERY
Address:	11900 HWY 101
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	100186
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	04/21/2015
Expiration Date:	04/21/2016
Address 2:	Not reported
Policy Number:	WA640200-9
Effective Date:	04/21/2015
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.24468
Longitude:	-123.14018

Name:	AIRPORT GROCERY
Address:	11900 HWY 101
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	100186
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	03/22/2016
Expiration Date:	04/21/2017
Address 2:	Not reported
Policy Number:	WA640200-10
Effective Date:	03/22/2016
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.24468
Longitude:	-123.14018

Name:	AIRPORT GROCERY
Address:	11900 HWY 101
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	100186
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	04/21/2017
Expiration Date:	04/21/2018
Address 2:	Not reported
Policy Number:	WA640200-11

AIRPORT GROCERY (Continued) **U003352284**

Effective Date:	04/21/2017
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.24468
Longitude:	-123.14018
Name:	AIRPORT GROCERY
Address:	11900 HWY 101
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	100186
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	04/21/2018
Expiration Date:	04/21/2019
Address 2:	Not reported
Policy Number:	WA640200-12
Effective Date:	04/21/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.24468
Longitude:	-123.14018

D28
SW
1/2-1
0.949 mi.
5010 ft.

AIRPORT GROCERY **EDR Hist Auto** **1021740143**
11900 N US HIGHWAY 101 **N/A**
SHELTON, WA 98584

Site 5 of 8 in cluster D

Relative:
Higher

EDR Hist Auto

Actual:
295 ft.

Year:	Name:	Type:
2014	AIRPORT GROCERY	Grocery Stores, NEC

D29
SW
1/2-1
0.949 mi.
5010 ft.

AIRPORT GROCERY & DELI **WA RGA LUST** **S115429148**
11900 HWY 101 **N/A**
SHELTON, WA

Site 6 of 8 in cluster D

Relative:
Higher

RGA LUST:

Actual:
295 ft.

1998	AIRPORT GROCERY & DELI	11900 HWY 101
1997	AIRPORT GROCERY & DELI	11900 HWY 101

D30 **AIRPORT GROCERY** **WA RGA LUST** **S115429151**
SW **11900 HWY 101** **N/A**
1/2-1 **SHELTON, WA**
0.949 mi.
5010 ft. **Site 7 of 8 in cluster D**

Relative: RGA LUST:
Higher

2003	AIRPORT GROCERY	11900 HWY 101
2002	AIRPORT GROCERY	11900 HWY 101
2001	AIRPORT GROCERY	11900 HWY 101
2000	AIRPORT GROCERY	11900 HWY 101
1999	AIRPORT GROCERY	11900 HWY 101

Actual:
295 ft.

D31 **AIRPORT GROCERY DELI & GAS** **WA RGA LUST** **S115429150**
SW **11900 HIGHWAY 101** **N/A**
1/2-1 **SHELTON, WA**
0.949 mi.
5010 ft. **Site 8 of 8 in cluster D**

Relative: RGA LUST:
Higher

1995	AIRPORT GROCERY DELI & GAS	11900 HIGHWAY 101

Actual:
295 ft.

---

32 **TRACTOR SUPPLY SHELTON** **WA ALLSITES** **S119162413**
SW **12001 N US 101** **N/A**
1/2-1 **SHELTON, WA 98584**
0.950 mi.
5018 ft.

Relative: ALLSITES:
Higher

Facility Name:	TRACTOR SUPPLY SHELTON
Facility Id:	20142

Actual:
292 ft.

---

33 **WA ASBESTOS** **S119163997**
SW **11840 HWY 101** **N/A**
1/2-1 **SHELTON, WA 98584**
0.953 mi.
5034 ft.

Relative: ASBESTOS:
Higher

Name:	Not reported
Address:	11840 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Commercial
Parent ID:	0
Form ID:	81313##1317Advan772515
Notice Date:	02/05/2014
Start Date:	02/06/2014
Completion Date:	02/07/2014
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	10
Site Hours End:	3:30pm
Sunday:	Not reported

Actual:
295 ft.

(Continued) **S119163997**

Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1317
Phone:	3603575666
Job Site CAS:	Genero magana
Project Form Email:	advanceenvironmental@comcast.net
Property Owner Name:	evergreen rural water
Property Owner Agent:	Tracey
Property Owner Company:	Not reported
Property Owner Address:	PO Box 2300
Property Owner City:	Shelton
Property Owner State:	Wa
Property Owner Zip4:	98584
Property Owner Phone:	Not reported
Job Site Room:	all rooms
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	1
Quantity Sq Ft:	1000
Fireproofing:	Not reported
Popcorn Ceiling:	1
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported

(Continued) **S119163997**

Wet Methods:		1
HEPA Vacuum:		1
MANUALMETHODS	:	1
Other CM1:		Not reported
Other CM1 Text:		Not reported
Other CM2:		Not reported
Other CM2 Text:		Not reported
Half Mask APR:		Not reported
Full Face APR:		Not reported
PAPR:		1
Type C Continuous:		Not reported
Type C Pressure:		Not reported
Other Resp Pro:		Not reported
Other Resp Pro Text:		Not reported
Comments:		Not an abatement only a post cleanup - 10 day waiver granted by Matt Ludwick
Date Time Submitted:		2014-02-05 15:35:48
Submitter IP Address:		24.22.203.177
Region:		Not reported
UBI:		Not reported
Notice type:		Not reported
Project Type:		Not reported
Supervisor:		Not reported
Supervisor Phone:		Not reported
Certificate Status:		Not reported

Contractor:

Contractor ID:	1317
Contractor UBI:	602306184
Contractor Priority:	M
Contractor Cris Num:	ADVANEI972MH
Contractor Name:	Advance Environmental Inc
Contractor Status:	Active
Contact Name:	Dan Venable
Contact Phone:	3603575666
Contact Fax:	3603575665
Contractor Cert Prn Date:	2016-08-25 00:00:00
Contractor Original Date:	02/01/2001
Contractor Effective Date:	08/13/2009
Contractor Renewal Letter Date:	06/21/2016
Contractor Exp Date:	08/22/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	34
Contractor Street Address:	3620 49TH AVE SW
Contractor City:	OLYMPIA
Contractor State:	WA
Contractor Zip:	98512
Contractor Phone:	3603575666
Contractor Email:	advanceenvironmental@comcast.net
Contractor Web Address:	Not reported
Contractor Mail Street Address:	3620 49TH AVE SW
Contractor Mail City:	OLYMPIA
Contractor Mail State:	WA
Contractor Mail Zip:	98512
Contractor Memo:	Not reported

Name: Not reported

(Continued) **S119163997**

Address:	11840 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Commercial
Parent ID:	0
Form ID:	81314##1317Advan772515
Notice Date:	02/05/2014
Start Date:	02/06/2014
Completion Date:	02/07/2014
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	10
Site Hours End:	3:30pm
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1317
Phone:	3603575666
Job Site CAS:	Genero magana
Project Form Email:	advanceenvironmental@comcast.net
Property Owner Name:	evergreen rural water
Property Owner Agent:	Tracey
Property Owner Company:	Not reported
Property Owner Address:	PO Box 2300
Property Owner City:	Shelton
Property Owner State:	Wa
Property Owner Zip4:	98584
Property Owner Phone:	Not reported
Job Site Room:	all rooms
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	1
Quantity Sq Ft:	1000
Fireproofing:	Not reported
Popcorn Ceiling:	1
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported

(Continued) **S119163997**

Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	1
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not an abatement only a post cleanup - 10 day waiver granted by Matt Ludwick
Date Time Submitted:	2014-02-05 15:36:36
Submitter IP Address:	24.22.203.177
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1317
Contractor UBI:	602306184
Contractor Priority:	M
Contractor Cris Num:	ADVANEI972MH
Contractor Name:	Advance Environmental Inc
Contractor Status:	Active
Contact Name:	Dan Venable
Contact Phone:	3603575666
Contact Fax:	3603575665
Contractor Cert Prn Date:	2016-08-25 00:00:00
Contractor Original Date:	02/01/2001
Contractor Effective Date:	08/13/2009
Contractor Renewal Letter Date:	06/21/2016
Contractor Exp Date:	08/22/2017
Contractor Suspended Date:	Not reported

(Continued) **S119163997**

Contractor Cnty Code:	34
Contractor Street Address:	3620 49TH AVE SW
Contractor City:	OLYMPIA
Contractor State:	WA
Contractor Zip:	98512
Contractor Phone:	3603575666
Contractor Email:	advanceenvironmental@comcast.net
Contractor Web Address:	Not reported
Contractor Mail Street Address:	3620 49TH AVE SW
Contractor Mail City:	OLYMPIA
Contractor Mail State:	WA
Contractor Mail Zip:	98512
Contractor Memo:	Not reported

E34 **HIAWATHA INC** **WA RGA LUST** **S115436189**
SE **681 E JOHNS PRAIRIE RD** **N/A**
1/2-1 **SHELTON, WA**
0.963 mi.
5085 ft. **Site 1 of 2 in cluster E**

Relative: RGA LUST:
Lower

2012	HIAWATHA INC	681 E JOHNS PRAIRIE RD
2011	HIAWATHA INC	681 E JOHNS PRAIRIE RD

Actual:
240 ft.

E35 **HIAWATHA INC** **WA LUST** **1007065688**
SE **681 E JOHNS PRAIRIE RD** **WA UST** **N/A**
1/2-1 **SHELTON, WA 98584** **WA ALLSITES**
0.963 mi. **WA CSCSL NFA**
5085 ft. **Site 2 of 2 in cluster E** **FINDS**

Relative: LUST:
Lower

Name:	HIAWATHA INC
Address:	681 E JOHNS PRAIRIE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	75267324
Lust Status Type:	LUST - NFA
Cleanup Site ID:	10400
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	Not reported
Response Section:	Southwest
Release Date:	06/26/1990
Lust Date:	08/14/2012
Region:	Southwest
Lust ID:	246
UST ID:	689
Contaminant Name:	Lead
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Suspected
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.23862 / -123.10443
Name:	HIAWATHA INC

Actual:
240 ft.

HIAWATHA INC (Continued) **1007065688**

Address: 681 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility ID: 75267324
Lust Status Type: LUST - NFA
Cleanup Site ID: 10400
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: Not reported
Response Section: Southwest
Release Date: 06/26/1990
Lust Date: 08/14/2012
Region: Southwest
Lust ID: 246
UST ID: 689
Contaminant Name: Other Non-Halogenated Organics
Ground Water: Not reported
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.23862 / -123.10443

Name: HIAWATHA INC
Address: 681 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility ID: 75267324
Lust Status Type: LUST - NFA
Cleanup Site ID: 10400
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: Not reported
Response Section: Southwest
Release Date: 06/26/1990
Lust Date: 08/14/2012
Region: Southwest
Lust ID: 246
UST ID: 689
Contaminant Name: Benzene
Ground Water: Not reported
Surface Water: Not reported
Soil: Suspected
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.23862 / -123.10443

Name: HIAWATHA INC
Address: 681 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility ID: 75267324
Lust Status Type: LUST - NFA
Cleanup Site ID: 10400
Cleanup Unit Type: Not reported
Process Type: Not reported
Cleanup Unit Name: Not reported
Response Section: Southwest

HIAWATHA INC (Continued) **1007065688**

Release Date:	06/26/1990
Lust Date:	08/14/2012
Region:	Southwest
Lust ID:	246
UST ID:	689
Contaminant Name:	Petroleum-Gasoline
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Remediated-Below
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.23862 / -123.10443

UST:

Facility ID:	75267324
Site Id:	689
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.238619999999997
Decimal Longitude:	-123.10442999999999
Tank Name:	1
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

ALLSITES:

Facility Name:	HIAWATHA INC
Facility Id:	75267324
Interaction:	62629
Interaction 1:	I
Interaction 2:	LUST

HIAWATHA INC (Continued) **1007065688**

Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Not reported
Program ID:	689
Date Interaction:	1990-06-26 00:00:00
Date Interaction 3:	LUST Facility
Latitude:	47.238614486000003
Longitude:	-123.10441507199999

Interaction:	62630
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	689
Date Interaction:	2000-03-20 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.238614486000003
Longitude:	-123.10441507199999

CSCSL NFA:

Name:	HIAWATHA INC
Address:	681 E JOHNS PRAIRIE RD
City,State,Zip:	SHELTON, WA 98584
Facility/Site Id:	75267324
CS Id:	10400
NFA Date:	08/14/2012
Alternate Site Names:	Not reported
NFA Reason:	NFA-Initial Investigation
Site Status:	NFA
Region:	Southwest
Contaminant Name:	Benzene
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Suspected
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Latitude:	47.23862
Longitude:	-123.10443

Name:	HIAWATHA INC
Address:	681 E JOHNS PRAIRIE RD
City,State,Zip:	SHELTON, WA 98584
Facility/Site Id:	75267324
CS Id:	10400
NFA Date:	08/14/2012
Alternate Site Names:	Not reported
NFA Reason:	NFA-Initial Investigation
Site Status:	NFA
Region:	Southwest
Contaminant Name:	Lead
Ground Water:	Not reported
Surface Water:	Not reported

HIAWATHA INC (Continued) **1007065688**

Soil:	Suspected
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Latitude:	47.23862
Longitude:	-123.10443

Name:	HIAWATHA INC
Address:	681 E JOHNS PRAIRIE RD
City,State,Zip:	SHELTON, WA 98584
Facility/Site Id:	75267324
CS Id:	10400
NFA Date:	08/14/2012
Alternate Site Names:	Not reported
NFA Reason:	NFA-Initial Investigation
Site Status:	NFA
Region:	Southwest
Contaminant Name:	Other Non-Halogenated Organics
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Suspected
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Latitude:	47.23862
Longitude:	-123.10443

Name:	HIAWATHA INC
Address:	681 E JOHNS PRAIRIE RD
City,State,Zip:	SHELTON, WA 98584
Facility/Site Id:	75267324
CS Id:	10400
NFA Date:	08/14/2012
Alternate Site Names:	Not reported
NFA Reason:	NFA-Initial Investigation
Site Status:	NFA
Region:	Southwest
Contaminant Name:	Petroleum-Gasoline
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Remediated-Below
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Latitude:	47.23862
Longitude:	-123.10443

FINDS:

Registry ID: 110015422639

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water

HIAWATHA INC (Continued) **1007065688**

Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

F36 **OLYMPIC AIR INC** **FINDS** **1007061815**
SW **11771 N HWY 101** **N/A**
1/2-1 **SHELTON, WA 98584**
0.968 mi.
5110 ft. **Site 1 of 2 in cluster F**

Relative: Higher

Actual: 280 ft.

FINDS:

Registry ID: 110015383244

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

F37 **OLYMPIC AIR INC** **WA UST** **U003352930**
SW **11771 N HWY 101** **WA ALLSITES** **N/A**
1/2-1 **SHELTON, WA 98584**
0.968 mi.
5110 ft. **Site 2 of 2 in cluster F**

Relative: Higher

Actual: 280 ft.

UST:

Facility ID:	99574416
Site Id:	10307
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.191096000000002
Decimal Longitude:	-123.117232
Tank Name:	1 JET
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/10/1985
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	01/31/1999
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	None
Tank Overfill Prevention:	None
Tank Material:	Dielectric Coated Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual

OLYMPIC AIR INC (Continued) **U003352930**

Tank Corrosion Protection:	Sacrificial Anode
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Coated Steel
Pipe Construction:	Above Ground Piping
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Sacrificial Anode
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2 100
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1965
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	01/31/1999
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	None
Tank Overfill Prevention:	None
Tank Material:	Not reported
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	None
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	None
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	3 80
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1965
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	01/31/1999
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	None
Tank Overfill Prevention:	None
Tank Material:	Not reported
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	None

OLYMPIC AIR INC (Continued) **U003352930**

Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	None
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	4 AUTO
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1965
Tank Closure Date:	Not reported
Capacity Range:	1,101 to 2,000 Gallons
Tank Permit Expiration Date:	01/31/1999
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	None
Tank Overfill Prevention:	None
Tank Material:	Not reported
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	None
Tank Manifold:	Not reported
Tank Release Detection:	Manual Inventory Control (daily)
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Safe Suction (No Leak Detection)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	None
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

ALLSITES:

Facility Name:	OLYMPIC AIR INC
Facility Id:	99574416

Interaction:	76563
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	10307
Date Interaction:	1965-01-01 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.191090490000001
Longitude:	-123.11721708100001

38
NE
1/2-1
0.996 mi.
5257 ft.

JIM'S AUTOMOTIVE, INC.
2911 E BROCKDALE RD
SHELTON, WA 98584

WA SWF/LF **S118401802**
N/A

Relative:
Lower

Actual:
227 ft.

SWF/LF:

Name:	JIM'S AUTOMOTIVE, INC.
Address:	2911 E BROCKDALE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1771
Region:	STATE
Permit Status:	Recycle Survey
Contact Organization:	Jim's Automotive, Inc.
Contact Address1:	Po Box 869
Contact Address2:	Not reported
Contact City:	Shelton
Contact State:	WA
Contact Postal:	98584
Contact EMail:	info@jimsautomotiveincwa.com
Contact Phone:	(360) 426-7167
Contact Phone Ext:	Not reported
Permit No:	Not reported
Phone:	(360) 426-7167
Operator Name:	Not reported
Operator Organization:	Jim's Automotive, Inc.
Operator EMail:	Not reported
Operator Title:	Not reported
Recycle Survey Code:	6867
Ownership:	Not reported
Facility Type:	Recycling (non-regulated)
Contact Name:	M Mccabe
Contact Title:	Corporate Secretary
Year Closed:	Not reported
Open to Public Flag:	No
Website:	Not reported
Latitude:	Not reported
Longitude:	Not reported

39
ENE
> 1
1.018 mi.
5376 ft.

OAK PARK WATER SYSTEM
E OAK PARK WAY
SHELTON, WA 98584

FINDS **1024010336**
ECHO **N/A**

Relative:
Lower

Actual:
222 ft.

FINDS:

Registry ID: 110013013069

Environmental Interest/Information System
COMMUNITY WATER SYSTEM

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1024010336
Registry ID:	110013013069

OAK PARK WATER SYSTEM (Continued) **1024010336**

DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110013013069

G40 **PORT OF SHELTON ALL STAR AERO** **ICIS** **1016706940**
West **21 W SANDERSON WAY** **FINDS** **N/A**
> 1 **SHELTON, WA 98584** **ECHO**
1.020 mi.
5383 ft. **Site 1 of 3 in cluster G**

Relative: Higher
Actual: 288 ft.

ICIS:

Enforcement Action ID:	10-2007-0075
FRS ID:	110056487626
Action Name:	PORT OF SHELTON
Facility Name:	PORT OF SHELTON ALL STAR AERO
Facility Address:	21 W SANDERSON WAY SHELTON, WA 98584
Enforcement Action Type:	TSCA 16 Action For Penalty
Facility County:	MASON
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	16
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	47.2435
Longitude in Decimal Degrees:	-123.144
Permit Type Desc:	Not reported
Program System Acronym:	600019160
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

FINDS:

Registry ID: 110056487626

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all

PORT OF SHELTON ALL STAR AERO (Continued) **1016706940**

Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016706940
Registry ID: 110056487626
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110056487626

G41 **PORT OF SHELTON** **WA ALLSITES** **S110700780**
West **21 W SANDERSON WAY** **N/A**
> 1 **SHELTON, WA 98584**
1.020 mi.
5383 ft. **Site 2 of 3 in cluster G**

Relative: **Higher**
Actual: **288 ft.**

ALLSITES:
Facility Name: PORT OF SHELTON
Facility Id: 9251

Interaction: 94969
Interaction 1: A
Interaction 2: ENFORFNL
Ecology Program: WATRES
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 2010-12-16 00:00:00
Date Interaction 3: Enforcement Final
Latitude: 47.246372489999999
Longitude: -123.142569064

---

42 **PRIVATE RESIDENCE** **WA SPILLS** **S123248711**
ESE **855 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.024 mi.
5408 ft.

Relative: **Lower**
Actual: **239 ft.**

SPILLS:
Name: PRIVATE RESIDENCE
Address: 855 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility ID: 102939
Medium: Soil
Material Desc: MINERAL OIL/TRANSFORMER OIL
Material Qty: 6
Material Units: Gals

PRIVATE RESIDENCE (Continued) **S123248711**

Date Received:	Not reported
Contact Name:	Not reported
Incident Date:	10/01/2018
Incident Category Type:	Oil Spill
Incident Category:	Oil Spill
Latitude:	47.24198
Longitude:	-123.10189
Source Type:	Facility
Source:	Power Generation Utility
Vessel Facility Name2:	Not reported
Recovered Quantity:	0
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Mason County PUD

G43 **WA317943733 - P U D #3 OF MASON COUNTY** **FINDS** **1024390078**
West **43 W. SANDERSON WAY** **N/A**
> 1 **SHELTON, WA 98584**
1.032 mi.
5448 ft. **Site 3 of 3 in cluster G**

Relative: **Higher**

Actual: **288 ft.**

FINDS:

Registry ID: 110070296325

Environmental Interest/Information System
OSHA ESTABLISHMENT

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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44 **SHELTON FLIGHT INC** **WA UST** **1007062414**
SSW **HWY 101 SANDERSON FIELD** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584** **FINDS**
1.034 mi.
5460 ft.

Relative: **Higher**

Actual: **267 ft.**

UST:

Facility ID:	95688881
Site Id:	4843
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.236342999999998
Decimal Longitude:	-123.133402
Tank Name:	1
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported

SHELTON FLIGHT INC (Continued) **1007062414**

Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	3
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported

SHELTON FLIGHT INC (Continued) **1007062414**

Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	4
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	08/19/1992
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

ALLSITES:

Facility Name:	SHELTON FLIGHT INC
Facility Id:	95688881

Interaction:	74354
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	4843
Date Interaction:	1998-06-08 00:00:00

SHELTON FLIGHT INC (Continued) **1007062414**

Date Interaction 3: Underground Storage Tank
Latitude: 47.236337489
Longitude: -123.133387068

FINDS:

Registry ID: 110015389523

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

45
SE
> 1
1.038 mi.
5482 ft.

BPA RIGHT OF WAY PAINT DUMP **RCRA NonGen / NLR** **1001490821**
200 YDS NW OF E 1892 JOHNS PRA **FINDS** **WAD988504973**
SHELTON, WA 98584 **ECHO**

Relative:
Lower

Actual:
236 ft.

RCRA NonGen / NLR:
Date form received by agency: 04/12/1995
Facility name: BPA RIGHT OF WAY PAINT DUMP
Facility address: 200 YDS NW OF E 1892 JOHNS PRAIRIE RD
SHELTON, WA 98584
EPA ID: WAD988504973
Mailing address: PO BOX 47775
OLYMPIA, WA 98504-7775
Contact: SHARI HARRIS DUNNING
Contact address: PO BOX 47775
OYMPIA, WA 98504
Contact country: US
Contact telephone: 360-664-0283
Contact email: Not reported
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: BPA RIGHT OF WAY PAINT DUMP
Owner/operator address: 200 YDS NW OF E 1892 JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner

BPA RIGHT OF WAY PAINT DUMP (Continued) **1001490821**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SEE PAPER COPY
Owner/operator address: 200 YDS NW OF E 1892 JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: Not reported
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BPA RIGHT OF WAY PAINT DUMP
Owner/operator address: 200 YDS NW OF E 1892 JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: WA STATE
Owner/operator address: UNKNOWN
Not reported
Owner/operator country: Not reported
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No

BPA RIGHT OF WAY PAINT DUMP (Continued) **1001490821**

Used oil transporter: No

Historical Generators:
Date form received by agency: 04/12/1995
Site name: BPA RIGHT OF WAY PAINT DUMP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 04/12/1995
Site name: BPA RIGHT OF WAY PAINT DUMP
Classification: Not a generator, verified

Date form received by agency: 12/31/1994
Site name: BPA RIGHT OF WAY PAINT DUMP
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110008224625

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1001490821
Registry ID: 110008224625
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110008224625

H46 **SHELTON PORT** **FINDS** **1018319260**
WSW **400 W ENTERPRISE RD** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.043 mi.
5508 ft. **Site 1 of 4 in cluster H**

Relative: Higher

Actual: 281 ft.

FINDS:

Registry ID: 110000739130

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a

SHELTON PORT (Continued) **1018319260**

means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1018319260
Registry ID: 110000739130
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110000739130

H47 **WA317947476 - TRUFAB LLC** **FINDS** **1015921922**
WSW **410 W ENTERPRISE RD** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.046 mi.
5525 ft. **Site 2 of 4 in cluster H**

Relative: Higher

Actual: 281 ft.

FINDS:

Registry ID: 110070345994

Environmental Interest/Information System
OSHA ESTABLISHMENT

Registry ID: 110045002894

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

WA317947476 - TRUFAB LLC (Continued) **1015921922**

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Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1015921922
Registry ID:	110045002894
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110045002894

H48 **OLYMPIC FABRICATION LLC** **RCRA NonGen / NLR** **1014928157**
WSW **410 W ENTERPRISE RD** **WAH000038030**
> 1 **SHELTON, WA 98584**
1.046 mi.
5525 ft. **Site 3 of 4 in cluster H**

Relative: **Higher**

Actual: **281 ft.**

RCRA NonGen / NLR:

Date form received by agency:	02/28/2013
Facility name:	OLYMPIC FABRICATION LLC
Facility address:	410 W ENTERPRISE RD SHELTON, WA 98584
EPA ID:	WAH000038030
Mailing address:	410 W ENTERPRISES RD SHELTON, WA 98584
Contact:	MIKE RUSSELL
Contact address:	410 W ENTERPRISE RD SHELTON, WA 98584
Contact country:	US
Contact telephone:	360-426-7878
Contact email:	MIKE.RUSSELL@OLYFAB.COM
EPA Region:	10
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	SEALASKA
Owner/operator address:	ONE SEALASKA PLAZA STE 400 JUNEAU, AK 99801
Owner/operator country:	US
Owner/operator telephone:	907-586-9135
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Indian
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	SEALASKA
Owner/operator address:	ONE SEALASKA PLAZA STE 400 JUNEAU, AK 99801

OLYMPIC FABRICATION LLC (Continued) **1014928157**

Owner/operator country: US
Owner/operator telephone: 907-586-9135
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/23/2006
Owner/Op end date: Not reported

Owner/operator name: OLYMPIC FABRICATION LLC
Owner/operator address: 410 W ENTERPRISE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-7878
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PORT OF SHELTON
Owner/operator address: 21 W SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PORT OF SHELTON
Owner/operator address: 21 W SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No

OLYMPIC FABRICATION LLC (Continued) **1014928157**

Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/28/2013
Site name: OLYMPIC FABRICATION LLC
Classification: Not a generator, verified

Date form received by agency: 02/16/2011
Site name: OLYMPIC FABRICATION LLC
Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

Violation Status: No violations found

H49 **OLYMPIC FABRICATION LLC** **WA ALLSITES** **S110993430**
WSW **410 W ENTERPRISE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.046 mi.
5525 ft. **Site 4 of 4 in cluster H**

Relative:
Higher

Actual:
281 ft.

ALLSITES:
Facility Name: OLYMPIC FABRICATION LLC
Facility Id: 16049

Interaction: 115322
Interaction 1: A
Interaction 2: RSVP
Ecology Program: HAZWASTE
Program Data: RSVP
Facility Alt.: TruFab
Program ID: Not reported
Date Interaction: 2012-08-07 00:00:00
Date Interaction 3: Revised Site Visit Progra
Latitude: 47.24044249
Longitude: -123.13887006500001

Interaction: 95903
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Olympic Fabrication LLC
Program ID: WAH000038030

OLYMPIC FABRICATION LLC (Continued) **S110993430**

Date Interaction: 2011-02-16 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.24044249
Longitude: -123.13887006500001

50
West
> 1
1.047 mi.
5528 ft.

GREEN CROW SHELTON LOG YARD **FINDS** **1007078154**
12721 US HWY 101 **N/A**
SHELTON, WA 98584

Relative:
Higher

Actual:
286 ft.

FINDS:

Registry ID: 110015548380

Environmental Interest/Information System

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Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

I51
WSW
> 1
1.076 mi.
5682 ft.

SANDERSON INDUSTRIAL PARK BLDG 3 **WA ALLSITES** **1005445326**
430 W ENTERPRISE RD **RCRA NonGen / NLR** **WAH000015958**
SHELTON, WA 98584 **FINDS**
ECHO
Site 1 of 3 in cluster I **WA MANIFEST**

Relative:
Higher

Actual:
280 ft.

ALLSITES:
Facility Name: SANDERSON INDUSTRIAL PARK BLDG 3
Facility Id: 56493627

Interaction: 52073
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAH000015958
Date Interaction: 2005-12-31 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.245309452000001
Longitude: -123.147443102

Interaction: 52072
Interaction 1: I
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

Facility Alt.:	Not reported
Program ID:	WAH000015958
Date Interaction:	2003-12-31 00:00:00
Date Interaction 3:	Haz Waste Management Acti
Latitude:	47.245309452000001
Longitude:	-123.147443102

Interaction:	52071
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAH000015958
Date Interaction:	2001-08-29 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.245309452000001
Longitude:	-123.147443102

Interaction:	52074
Interaction 1:	I
Interaction 2:	HWOTHER
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAH000015958
Date Interaction:	2007-12-31 00:00:00
Date Interaction 3:	Haz Waste Management Acti
Latitude:	47.245309452000001
Longitude:	-123.147443102

RCRA NonGen / NLR:

Date form received by agency:	02/27/2010
Facility name:	SANDERSON INDUSTRIAL PARK BLDG 3
Facility address:	430 W ENTERPRISE RD SHELTON, WA 98584
EPA ID:	WAH000015958
Mailing address:	W 21 SANDERSON WAY SHELTON, WA 98584
Contact:	AL FREY
Contact address:	W 21 SANDERSON WAY SHELTON, WA 98584
Contact country:	US
Contact telephone:	360-426-1151
Contact email:	ALF@PORTOFSHELTON.COM
EPA Region:	10
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	PORT OF SHELTON
Owner/operator address:	W 21 SANDERSON WAY SHELTON, WA 98584

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/29/2001
Owner/Op end date: Not reported

Owner/operator name: FREY, AL
Owner/operator address: W 21 SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PORT OF SHELTON
Owner/operator address: W 21 SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/31/2010
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/26/2010
Site name: SANDERSON INDUSTRIAL PARK BLDG 3

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

Classification: Not a generator, verified

Date form received by agency: 02/26/2010
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 02/26/2010
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 01/27/2009
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 12/31/2008
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 02/01/2008
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 02/17/2007
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/16/2006
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/2005
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 04/21/2005
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 12/31/2004
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 01/09/2004
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 01/17/2003
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 01/17/2003
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Date form received by agency: 03/14/2002
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Large Quantity Generator

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

Date form received by agency: 03/14/2002
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Large Quantity Generator

Date form received by agency: 08/29/2001
Site name: SANDERSON INDUSTRIAL PARK BLDG 3
Classification: Not a generator, verified

Hazardous Waste Summary:

Violation Status: No violations found

FINDS:

Registry ID: 110012561076

Environmental Interest/Information System
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HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1005445326
Registry ID:	110012561076
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110012561076

WA MANIFEST:

Name:	SANDERSON INDUSTRIAL PARK BLDG 3
Address:	430 W ENTERPRISE RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	56493627
EPA ID:	WAH000015958
NAICS:	333999
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600200034
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 Sanderson Way
Mailing City,State,Zip:	SHELTON, WA 98584-1284
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 Sanderson Way
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584-1284
Legal Phone Number:	(360)426-1151
Legal Effective Date:	08/29/2001
Land Organization Name:	Port of Shelton
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderson Way
Land City,State,Zip:	SHELTON, WA 98584-1284
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	SANDERSON INDUSTRIAL PARK BLDG 3
Address:	430 W ENTERPRISE RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	56493627
EPA ID:	WAH000015958
NAICS:	333999
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2008
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600200034
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 Sanderson Way
Mailing City,State,Zip:	SHELTON, WA 98584-1284
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 Sanderson Way
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584-1284
Legal Phone Number:	(360)426-1151
Legal Effective Date:	08/29/2001
Land Organization Name:	Port of Shelton
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderson Way
Land City,State,Zip:	SHELTON, WA 98584-1284
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	SANDERSON INDUSTRIAL PARK BLDG 3
Address:	430 W ENTERPRISE RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	56493627
EPA ID:	WAH000015958
NAICS:	333999
State Waste Code Desc:	WP01
Federal Waste Code Desc:	UN2610
Form Comm:	State manifest document # 35387
Data Year:	Not reported
Permit by Rule:	F
Mailing Address 2:	Not reported
Treatment by Generator:	F
Mixed Radioactive Waste:	F
Importer of Hazardous Waste:	F
Immediate Recycler:	F
Treatment/Storage/Disposal/Recycling Facility:	F
Generator of Dangerous Fuel Waste:	F
Generator Marketing to Burner:	F
Other Marketers (i.e., blender, distributor, etc.):	F
Utility Boiler Burner:	F
Industry Boiler Burner:	F
Industrial Furnace:	F
Smelter Defferal:	F
Universal Waste:	Not reported
Off-Specification:	Not reported

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

LN Address 2:	Not reported
Tax Reg #:	600200034
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 Sanderson Way
Mailing City,State,Zip:	SHELTON, WA 98584-1284
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 Sanderson Way
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584-1284
Legal Phone Number:	(360)426-1151
Legal Effective Date:	08/29/2001
Land Organization Name:	Port of Shelton
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderson Way
Land City,State,Zip:	SHELTON, WA 98584-1284
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	F
Batch Generation:	T
One Time Generation:	F
Transport Own Waste:	F
Tranports Other Waste:	F
Recycler Onsite:	F
Transfer Facility:	F
Other Exemption:	Not reported
UW Battery Gen:	F
Used Oil Transporter:	F
Used Oil Transfer Facility:	F
Used Oil Processor:	F
Used Oil Refiner:	F
Used Oil Fuel Marketer Directs Shipments:	F
Used Oil Fuel Marketer Meets Specs:	F
Site Contact Address 2:	Not reported

Name:	SANDERSON INDUSTRIAL PARK BLDG 3
Address:	430 W ENTERPRISE RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	56493627
EPA ID:	WAH000015958

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

NAICS:	333999
State Waste Code Desc:	WP01
Federal Waste Code Desc:	UN2610
Form Comm:	State manifest document # 35387
Data Year:	Not reported
Permit by Rule:	No
Mailing Address 2:	Not reported
Treatment by Generator:	No
Mixed Radioactive Waste:	No
Importer of Hazardous Waste:	No
Immediate Recycler:	No
Treatment/Storage/Disposal/Recycling Facility:	No
Generator of Dangerous Fuel Waste:	No
Generator Marketing to Burner:	No
Other Marketers (i.e., blender, distributor, etc.):	No
Utility Boiler Burner:	No
Industry Boiler Burner:	No
Industrial Furnace:	No
Smelter Defferal:	No
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600200034
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 Sanderson Way
Mailing City,State,Zip:	SHELTON, WA 98584-1284
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 Sanderson Way
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584-1284
Legal Phone Number:	(360)426-1151
Legal Effective Date:	08/29/2001
Land Organization Name:	Port of Shelton
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderson Way
Land City,State,Zip:	SHELTON, WA 98584-1284
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	SQG
Monthly Generation:	No
Batch Generation:	No

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

One Time Generation:	Yes
Transport Own Waste:	No
Tranports Other Waste:	No
Recycler Onsite:	No
Transfer Facility:	No
Other Exemption:	Not reported
UW Battery Gen:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Fuel Marketer Directs Shipments:	No
Used Oil Fuel Marketer Meets Specs:	No
Site Contact Address 2:	Not reported
Name:	SANDERSON INDUSTRIAL PARK BLDG 3
Address:	430 W ENTERPRISE RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	56493627
EPA ID:	WAH000015958
NAICS:	333999
State Waste Code Desc:	WP01
Federal Waste Code Desc:	UN2610
Form Comm:	State manifest document # 35387
Data Year:	Not reported
Permit by Rule:	FALSE
Mailing Address 2:	Not reported
Treatment by Generator:	FALSE
Mixed Radioactive Waste:	FALSE
Importer of Hazardous Waste:	FALSE
Immediate Recycler:	FALSE
Treatment/Storage/Disposal/Recycling Facility:	FALSE
Generator of Dangerous Fuel Waste:	FALSE
Generator Marketing to Burner:	FALSE
Other Marketers (i.e., blender, distributor, etc.):	FALSE
Utility Boiler Burner:	FALSE
Industry Boiler Burner:	FALSE
Industrial Furnace:	FALSE
Smelter Defferal:	FALSE
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600200034
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 Sanderson Way
Mailing City,State,Zip:	SHELTON, WA 98584-1284
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 Sanderson Way
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584-1284
Legal Phone Number:	(360)426-1151
Legal Effective Date:	08/29/2001
Land Organization Name:	Port of Shelton

SANDERSON INDUSTRIAL PARK BLDG 3 (Continued) **1005445326**

Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderson Way
Land City,State,Zip:	SHELTON, WA 98584-1284
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	SQG
Monthly Generation:	FALSE
Batch Generation:	FALSE
One Time Generation:	TRUE
Transport Own Waste:	FALSE
Tranports Other Waste:	FALSE
Recycler Onsite:	FALSE
Transfer Facility:	FALSE
Other Exemption:	Not reported
UW Battery Gen:	FALSE
Used Oil Transporter:	FALSE
Used Oil Transfer Facility:	FALSE
Used Oil Processor:	FALSE
Used Oil Refiner:	FALSE
Used Oil Fuel Marketer Directs Shipments:	FALSE
Used Oil Fuel Marketer Meets Specs:	FALSE
Site Contact Address 2:	Not reported

I52 **PORT OF SHELTON** **PADS** **1008982838**
WSW **430 W. ENTERPRISE RD.** **WAW000000590**
> 1 **SHELTON, WA 98584**
1.076 mi.
5682 ft. **Site 2 of 3 in cluster I**

Relative: PADS:
Higher

Actual:
280 ft.

EPAID:	WAW000000590
Facility name:	PORT OF SHELTON
Facility Address:	430 W. ENTERPRISE RD. SHELTON, WA 98584
Facility country:	US
Generator:	Yes
Storer:	No
Transporter:	No
Disposer:	No
Research facility:	No
Smelter:	No
Facility owner name:	PORT OF SHELTON
Contact title:	Not reported
Contact name:	AL FREY
Contact tel:	360-426-1151

PORT OF SHELTON (Continued) **1008982838**

Contact extension: Not reported
Contact Email: Not reported
Mailing address: 21 W. SANDERSON WAY
SHELTON, WA 98584
Mailing country: US
Cert. date: 10/19/2005

J53 **BARNES MACHINE INC** **WA VCP** **1004794932**
ESE **790 E JOHNS PRAIRIE RD** **WA ALLSITES** **WAH000012211**
> 1 **SHELTON, WA 98584** **WA CSCSL NFA**
1.096 mi. **RCRA NonGen / NLR**
5788 ft. **Site 1 of 2 in cluster J** **FINDS**
ECHO

Relative:
Lower

Actual:
237 ft.

VCP:
edr_fstat: WA
edr_fzip: 98584
edr_fcnty: MASON
edr_zip: Not reported
Facility ID: 53878546
VCP Status: Not reported
VCP: Yes
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: 8/27/2003
Rank: Not reported
Cleanup Siteid: 1715

ALLSITES:
Facility Name: MASON COUNTY TRANSPORT AUTHORITY
Facility Id: 9519

Interaction: 103500
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Mason County Transport Authority
Program ID: CRK000080500
Date Interaction: 2013-01-22 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.240494484999999
Longitude: -123.09999807200001

Interaction: 97584
Interaction 1: A
Interaction 2: RSVP
Ecology Program: HAZWASTE
Program Data: RSVP
Facility Alt.: Mason County Transport Authority
Program ID: Not reported
Date Interaction: 2011-02-03 00:00:00
Date Interaction 3: Revised Site Visit Progra
Latitude: 47.240494484999999
Longitude: -123.09999807200001

BARNES MACHINE INC (Continued) **1004794932**

Interaction: 98097
Interaction 1: A
Interaction 2: INDSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Mason County Transport Authority
Program ID: Not reported
Date Interaction: 2011-08-25 00:00:00
Date Interaction 3: Industrial SW GP
Latitude: 47.240494484999999
Longitude: -123.09999807200001

Facility Name: BARNES MACHINE INC
Facility Id: 53878546

Interaction: 50430
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAH000012211
Date Interaction: 2000-07-14 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.250561003999998
Longitude: -123.091330794

Interaction: 50431
Interaction 1: I
Interaction 2: VOLCLNST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Barnes Machine Inc
Program ID: SW0503
Date Interaction: 2003-07-08 00:00:00
Date Interaction 3: Voluntary Cleanup Sites
Latitude: 47.250561003999998
Longitude: -123.091330794

CSCSL NFA:
Name: BARNES MACHINE INC
Address: 790 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility/Site Id: 53878546
CS Id: 1715
NFA Date: 08/27/2003
Alternate Site Names: Not reported
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Southwest
Contaminant Name: Metals Priority Pollutants
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated

BARNES MACHINE INC (Continued) **1004794932**

Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.25056652
Longitude: -123.09134572

Name: BARNES MACHINE INC
Address: 790 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility/Site Id: 53878546
CS Id: 1715
NFA Date: 08/27/2003
Alternate Site Names: Not reported
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Southwest
Contaminant Name: Petroleum Products-Unspecified
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.25056652
Longitude: -123.09134572

RCRA NonGen / NLR:
Date form received by agency: 02/20/2003
Facility name: BARNES MACHINE INC
Facility address: 790 E JOHNS PRAIRIE RD
SHELTON, WA 98584
EPA ID: WAH000012211
Contact: KEN DOWNER
Contact address: 790 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Contact country: US
Contact telephone: 360-426-5264
Contact email: Not reported
EPA Region: 10
Land type: Other land type
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: BARNES MACHINE INC
Owner/operator address: 790 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-5264
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

BARNES MACHINE INC (Continued) **1004794932**

Owner/operator name: BARNES MACHINE INC
Owner/operator address: 790 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-5264
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 07/14/2000
Owner/Op end date: Not reported

Owner/operator name: BARNES MACHINE INC
Owner/operator address: 790 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-5264
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/19/2003
Site name: BARNES MACHINE INC
Classification: Not a generator, verified

Date form received by agency: 02/19/2003
Site name: BARNES MACHINE INC
Classification: Not a generator, verified

Date form received by agency: 02/19/2003
Site name: BARNES MACHINE INC
Classification: Not a generator, verified

BARNES MACHINE INC (Continued) **1004794932**

Date form received by agency: 02/19/2003
Site name: BARNES MACHINE INC
Classification: Not a generator, verified

Date form received by agency: 02/27/2002
Site name: BARNES MACHINE INC
Classification: Small Quantity Generator

Date form received by agency: 08/15/2001
Site name: BARNES MACHINE INC
Classification: Large Quantity Generator

Date form received by agency: 07/14/2000
Site name: BARNES MACHINE INC
Classification: Small Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: SR - -630(7)
Area of violation: Generators - General
Date violation determined: 06/06/2001
Date achieved compliance: 08/14/2001
Violation lead agency: State
Enforcement action: VERBAL INFORMAL
Enforcement action date: 06/06/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - WAC 173-303-200(1)(b)
Area of violation: Generators - General
Date violation determined: 06/06/2001
Date achieved compliance: 08/14/2001
Violation lead agency: State
Enforcement action: VERBAL INFORMAL
Enforcement action date: 06/06/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/06/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/14/2001
Evaluation lead agency: State

FINDS:

Registry ID: 110005398104

Environmental Interest/Information System

BARNES MACHINE INC (Continued) **1004794932**

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1004794932
Registry ID: 110005398104
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005398104

J54 **MASON COUNTY TRANSPORTATION AUTHORITY** **FINDS** **1015974742**
ESE **790 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.096 mi.
5788 ft. **Site 2 of 2 in cluster J**

Relative: **Lower**

Actual: **237 ft.**

FINDS:

Registry ID: 110054937431

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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55 **TACOMA PUBLIC UTILITIES CUSHMAN DAM** **RCRA-CESQG** **1001806862**
West **N 21451 HWY 101** **WA ALLSITES** **WAD988502340**
> 1 **SHELTON, WA 98584** **WA MANIFEST**
1.101 mi.
5813 ft.

Relative: **Higher**

Actual: **287 ft.**

RCRA-CESQG:
Date form received by agency: 02/15/2018
Facility name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Facility address: N 21451 HWY 101
SHELTON, WA 98584

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

EPA ID: WAD988502340
Mailing address: 3628 S 35TH ST
TACOMA, WA 98409
Contact: JAMES BOZIC
Contact address: 3628 S 35TH ST
TACOMA, WA 98409
Contact country: US
Contact telephone: 253-502-8767
Contact email: JBOZIC@CITYOFTACOMA.ORG
EPA Region: 10
Land type: Municipal
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: TACOMA PUBLIC UTILITIES
Owner/operator address: 3628 S 35TH ST
TACOMA, WA 98409
Owner/operator country: US
Owner/operator telephone: 253-502-8000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: TACOMA POWER
Owner/operator address: 3628 S 35TH ST
TACOMA, WA 98409
Owner/operator country: US
Owner/operator telephone: 253-502-8000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/13/2017
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/22/2016
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/24/2015
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/19/2014
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Large Quantity Generator

Date form received by agency: 02/19/2014
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Large Quantity Generator

Date form received by agency: 02/21/2013
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/24/2012
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/24/2012
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/25/2011
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/25/2011
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/24/2010

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/24/2010
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/17/2009
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/2008
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Not a generator, verified

Date form received by agency: 02/12/2008
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/30/2007
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/10/2006
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/2005
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Not a generator, verified

Date form received by agency: 02/01/2005
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/2004
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Not a generator, verified

Date form received by agency: 02/27/2004
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/11/2003
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/11/2003
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Not a generator, verified

Date form received by agency: 02/22/2002
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/28/2001
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/08/2000
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Small Quantity Generator

Date form received by agency: 02/22/1999
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Large Quantity Generator

Date form received by agency: 02/25/1998
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/28/1997
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/01/1996
Site name: TACOMA PUB UTILITIES-CUSHMAN DAM
Classification: Large Quantity Generator

Date form received by agency: 02/23/1996
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Large Quantity Generator

Date form received by agency: 02/22/1994
Site name: TACOMA PUBLIC UTILITIES - CUSHMAN DAM
Classification: Large Quantity Generator

Date form received by agency: 01/01/1994
Site name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Classification: Not a generator, verified

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE,

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: Universal Waste - Small Quantity Handlers
Date violation determined: 02/24/2014
Date achieved compliance: 05/12/2014
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/15/2014
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Listing - General
Date violation determined: 10/22/2007
Date achieved compliance: 11/20/2007
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2007
Enf. disposition status: Not reported

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - Small Quantity Handlers
Date violation determined: 10/22/2007
Date achieved compliance: 11/20/2007
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2007
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Used Oil - Generators
Date violation determined: 10/22/2007
Date achieved compliance: 11/20/2007
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2007
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 02/24/2014
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Universal Waste - Small Quantity Handlers
Date achieved compliance: 05/12/2014
Evaluation lead agency: State

Evaluation date: 05/15/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Listing - General
Date achieved compliance: 11/20/2007
Evaluation lead agency: EPA

Evaluation date: 05/15/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Generators
Date achieved compliance: 11/20/2007
Evaluation lead agency: EPA

Evaluation date: 05/15/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Universal Waste - Small Quantity Handlers
Date achieved compliance: 11/20/2007

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Evaluation lead agency: EPA

Evaluation date: 02/16/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

ALLSITES:
Facility Name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Facility Id: 36292444

Interaction: 40503
Interaction 1: A
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Tacoma Public Utilities Cushman Dam
Program ID: WAD988502340
Date Interaction: 1992-03-05 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.248014490000003
Longitude: -123.144595063

Interaction: 40502
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: WAD988502340
Date Interaction: 1988-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.248014490000003
Longitude: -123.144595063

WA MANIFEST:
Name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address: N 21451 HWY 101
City,State,Zip: SHELTON, WA 98584
Facility Address 2: Not reported
Facility ID: 36292444
EPA ID: WAD988502340
NAICS: 221111
State Waste Code Desc: Not reported
Federal Waste Code Desc: D001
Form Comm: Not reported
Data Year: 2017
Permit by Rule: False
Mailing Address 2: Not reported
Treatment by Generator: False
Mixed Radioactive Waste: False
Importer of Hazardous Waste: False
Immediate Recycler: False
Treatment/Storage/Disposal/Recycling Facility: False

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Public Utilities Env. Compliance
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Jeromy Adams
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	Jadams2@cityoftacoma.org
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address:	N 21451 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	36292444
EPA ID:	WAD988502340
NAICS:	221111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001,D005,D006,D007,D008,D035
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409
Operator Phone Number:	(253)502-8000

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Operator Effective Date:	Not reported
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address:	N 21451 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	36292444
EPA ID:	WAD988502340
NAICS:	221111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001,D008,F001,D035,F003
Form Comm:	Not reported
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Public Utilities Env. Compliance
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Jeromy Adams
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	Jadams2@cityoftacoma.org
Gen Status Code:	MQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W209
Description:	Waste Aerosol Cans

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

CORb Sequence Number:	158632
Sequence Number:	3413767
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	50
Quanity Unit:	LB
Kilograms Quanity:	22.6800003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Waste Loosepack Solvents (Methyl Isobutyl Ketone and PCE)
CORb Sequence Number:	158632
Sequence Number:	3413773
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	125
Quanity Unit:	LB
Kilograms Quanity:	56.7000009
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W209
Description:	Waste Paint and Related Materials
CORb Sequence Number:	158632
Sequence Number:	3413775
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	400
Quanity Unit:	LB
Kilograms Quanity:	181.440003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W406
Description:	Lead Paint Chips
CORb Sequence Number:	158632
Sequence Number:	3413776
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	400
Quanity Unit:	LB
Kilograms Quanity:	181.440003
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W209
Description:	Loosepack Paint Related Materials
CORb Sequence Number:	158632
Sequence Number:	3413764
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	75
Quanity Unit:	LB
Kilograms Quanity:	34.0200005
Density Number:	0
Density Quanity:	Not reported

Shipments Send:

CORB Waste Sequence Number:	158632
Waste Sequence Number:	3413775
Sequence Number:	1997598
Shipment Date:	2016-12-09 00:00:00
Mainfest Document ID:	015121398JJK
Reported Quanity:	400
Unit of Measure:	LB
Kilograms Quanity:	181.440003
Receiving EPAID:	ORD089452353

Waste Sequence Number:	3413776
Sequence Number:	1997603
Shipment Date:	2016-12-09 00:00:00
Mainfest Document ID:	015121398JJK
Reported Quanity:	400

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Unit of Measure: LB
Kilograms Quanity: 181.440003
Receiving EPAID: ORD089452353

Waste Sequence Number: 3413773
Sequence Number: 1997593
Shipment Date: 2016-12-09 00:00:00
Mainfest Document ID: 015121398JJK
Reported Quanity: 125
Unit of Measure: LB
Kilograms Quanity: 56.7000009
Receiving EPAID: ORD089452353

Waste Sequence Number: 3413767
Sequence Number: 1997591
Shipment Date: 2016-12-09 00:00:00
Mainfest Document ID: 015121398JJK
Reported Quanity: 50
Unit of Measure: LB
Kilograms Quanity: 22.6800003
Receiving EPAID: ORD089452353

Waste Sequence Number: 3413764
Sequence Number: 1997589
Shipment Date: 2016-10-20 00:00:00
Mainfest Document ID: 015121370JJK
Reported Quanity: 75
Unit of Measure: LB
Kilograms Quanity: 34.0200005
Receiving EPAID: ORD089452353

Waste Stream Off Site Mgmt:
Waste CORB Sequence Number: 158632
Waste Sequence Number: 3413764
Sequence Number: 908331
Received EPAID: ORD089452353
Managed Quanity: 75
Kilogram Quanity: 34.0200005
Recycled Percentage: 0
Waste Management System Code: H040

Waste Sequence Number: 3413767
Sequence Number: 908333
Received EPAID: ORD089452353
Managed Quanity: 50
Kilogram Quanity: 22.6800003
Recycled Percentage: 0
Waste Management System Code: H040

Waste Sequence Number: 3413776
Sequence Number: 908347
Received EPAID: ORD089452353
Managed Quanity: 400
Kilogram Quanity: 181.440003
Recycled Percentage: 0
Waste Management System Code: H132

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Waste Sequence Number: 3413773
Sequence Number: 908337
Received EPAID: ORD089452353
Managed Quanity: 125
Kilogram Quanity: 56.7000009
Recycled Percentage: 0
Waste Management System Code: H040

Waste Sequence Number: 3413775
Sequence Number: 908341
Received EPAID: ORD089452353
Managed Quanity: 400
Kilogram Quanity: 181.440003
Recycled Percentage: 0
Waste Management System Code: H040

Waste Stream Comments:
CORB Waste Sequence Number: 158632
Comments: A-8: Methyl Isobutyl Ketone and PCE
Waste Sequence Number: 3413773
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 158632
Waste Sequence Number: 3413776
Sequence Number: 7919029
WCDA Code: D008

Waste Sequence Number: 3413773
Sequence Number: 7918964
WCDA Code: D001

Waste Sequence Number: 3413773
Sequence Number: 7918965
WCDA Code: F001

Waste Sequence Number: 3413773
Sequence Number: 7918966
WCDA Code: F003

Waste Sequence Number: 3413775
Sequence Number: 7919004
WCDA Code: D001

Waste Sequence Number: 3413775
Sequence Number: 7919005
WCDA Code: D035

Waste Sequence Number: 3413775
Sequence Number: 7919006
WCDA Code: F003

Waste Sequence Number: 3413764
Sequence Number: 7918492
WCDA Code: D001

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Waste Sequence Number: 3413764
Sequence Number: 7918493
WCDA Code: D035

Waste Sequence Number: 3413764
Sequence Number: 7918494
WCDA Code: F003

Waste Sequence Number: 3413767
Sequence Number: 7894701
WCDA Code: D001

Waste Stream Source Code:
CORB Waste Sequence Number: 158632
Waste Sequence Number: 3413764
Sequence Number: 1
WCDD Code: G06

Waste Sequence Number: 3413775
Sequence Number: 1
WCDD Code: G06

Waste Sequence Number: 3413776
Sequence Number: 1
WCDD Code: G06

Waste Sequence Number: 3413767
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3413773
Sequence Number: 1
WCDD Code: G11

Name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address: N 21451 HWY 101
City,State,Zip: SHELTON, WA 98584
Facility Address 2: Not reported
Facility ID: 36292444
EPA ID: WAD988502340
NAICS: 221111
State Waste Code Desc: WP01,WP02,WSC2,WT01,WT02
Federal Waste Code Desc: D001,D039,F001
Form Comm: Not reported
Data Year: 2015
Permit by Rule: False
Mailing Address 2: Not reported
Treatment by Generator: False
Mixed Radioactive Waste: False
Importer of Hazardous Waste: False
Immediate Recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of Dangerous Fuel Waste: False
Generator Marketing to Burner: False
Other Marketers (i.e., blender, distributor, etc.): False
Utility Boiler Burner: False

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Public Utilities Env. Compliance
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Jeromy Adams
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	Jadams2@cityoftacoma.org
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

State Only Waste Code 1:	WP01
State Only Waste Code 2:	WT01
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W001
Description:	Non-RCRA Toxic Labpack
CORb Sequence Number:	153851
Sequence Number:	3364616
Mixed Radioactive Flag:	False
Designation Code:	E
Reported Quanity:	30
Quanity Unit:	LB
Kilograms Quanity:	13.6080002
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W001
Description:	Falmmable Liquid Class 3
CORb Sequence Number:	153851
Sequence Number:	3364612
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	125
Quanity Unit:	LB
Kilograms Quanity:	56.7000009
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W211
Description:	F Listed Solvent
CORb Sequence Number:	153851
Sequence Number:	3364613

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	60
Quanity Unit:	LB
Kilograms Quanity:	27.2160004
Density Number:	0
Density Quanity:	Not reported

Shipments Send:

CORB Waste Sequence Number:	153851
Waste Sequence Number:	3364613
Sequence Number:	1929215
Shipment Date:	2015-06-30 00:00:00
Mainfest Document ID:	012247137JJK
Reported Quanity:	60
Unit of Measure:	LB
Kilograms Quanity:	27.2160004
Receiving EPAID:	WAD991281767
Waste Sequence Number:	3364612
Sequence Number:	1929213
Shipment Date:	2015-06-30 00:00:00
Mainfest Document ID:	012247137JJK
Reported Quanity:	125
Unit of Measure:	LB
Kilograms Quanity:	56.7000009
Receiving EPAID:	WAD991281767
Waste Sequence Number:	3364616
Sequence Number:	1929223
Shipment Date:	2015-06-30 00:00:00
Mainfest Document ID:	012247137JJK
Reported Quanity:	30
Unit of Measure:	LB
Kilograms Quanity:	13.6080002
Receiving EPAID:	WAD991281767

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	153851
Waste Sequence Number:	3364612
Sequence Number:	878290
Received EPAID:	WAD991281767
Managed Quanity:	125
Kilogram Quanity:	56.7000009
Recycled Percentage:	0
Waste Management System Code:	H050
Waste Sequence Number:	3364616
Sequence Number:	878299
Received EPAID:	WAD991281767
Managed Quanity:	30
Kilogram Quanity:	13.6080002
Recycled Percentage:	0
Waste Management System Code:	H040
Waste Sequence Number:	3364613

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Sequence Number:	878293
Received EPAID:	WAD991281767
Managed Quanity:	60
Kilogram Quanity:	27.2160004
Recycled Percentage:	0
Waste Management System Code:	H050

Waste Stream EPA Code:

CORB Waste Sequence Number:	153851
Waste Sequence Number:	3364612
Sequence Number:	7681646
WCDA Code:	D001
Waste Sequence Number:	3364612
Sequence Number:	7681647
WCDA Code:	D039
Waste Sequence Number:	3364613
Sequence Number:	7681669
WCDA Code:	D001
Waste Sequence Number:	3364613
Sequence Number:	7681670
WCDA Code:	F001

Waste Stream Source Code:

CORB Waste Sequence Number:	153851
Waste Sequence Number:	3364612
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3364616
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3364613
Sequence Number:	1
WCDD Code:	G08

Name:	TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address:	N 21451 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	36292444
EPA ID:	WAD988502340
NAICS:	221111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001,D018
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Public Utilities Env. Compliance
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Jeromy Adams
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	jadams@cityoftacoma.org
Gen Status Code:	MQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Used Oil Refiner: False
Used Oil Fuel Marketer Directs Shipments: False
Used Oil Fuel Marketer Meets Specs: False
Site Contact Address 2: Not reported

Waste Stream Generated:
Waste Managed Off Site: Y
State Only Waste Code 1: Not reported
State Only Waste Code 2: Not reported
Report Managed On Site: 0
KG Managed On Site: 0
Generator Treatment Code: Not reported
Permit By Rule Code: Not reported
WCDE Residence Code: Not reported
WCDH Origin Code: 1
WCDE On Site Code: Not reported
WCDB Code: W219
Description: Used Paint Solvents
CORb Sequence Number: 148629
Sequence Number: 3334836
Mixed Radioactive Flag: False
Designation Code: D
Reported Quanity: 1836
Quanity Unit: LB
Kilograms Quanity: 832.809614
Density Number: 0
Density Quanity: Not reported

Waste Managed Off Site: Y
State Only Waste Code 1: Not reported
State Only Waste Code 2: Not reported
Report Managed On Site: 0
KG Managed On Site: 0
Generator Treatment Code: Not reported
Permit By Rule Code: Not reported
WCDE Residence Code: Not reported
WCDH Origin Code: 1
WCDE On Site Code: Not reported
WCDB Code: W203
Description: Spent Voltz Solvent with Oil, Grease, and Mixed Fuels
CORb Sequence Number: 148629
Sequence Number: 3310482
Mixed Radioactive Flag: False
Designation Code: D
Reported Quanity: 150
Quanity Unit: LB
Kilograms Quanity: 68.0400011
Density Number: 0
Density Quanity: Not reported

Shipments Send:
CORB Waste Sequence Number: 148629
Waste Sequence Number: 3310482
Sequence Number: 1804622
Shipment Date: 2014-08-18 00:00:00
Mainfest Document ID: 006765991FLE
Reported Quanity: 150

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Unit of Measure: LB
Kilograms Quanity: 68.0400011
Receiving EPAID: WAD981769110

Waste Sequence Number: 3334836
Sequence Number: 1821237
Shipment Date: 2014-09-18 00:00:00
Mainfest Document ID: 007706544FLE
Reported Quanity: 1836
Unit of Measure: LB
Kilograms Quanity: 832.809614
Receiving EPAID: ARD981057870

Waste Stream Off Site Mgmt:
Waste CORB Sequence Number: 148629
Waste Sequence Number: 3310482
Sequence Number: 840901
Received EPAID: WAD981769110
Managed Quanity: 150
Kilogram Quanity: 68.0400011
Recycled Percentage: 0
Waste Management System Code: H061

Waste Sequence Number: 3334836
Sequence Number: 847644
Received EPAID: ARD981057870
Managed Quanity: 1836
Kilogram Quanity: 832.809614
Recycled Percentage: 0
Waste Management System Code: H061

Waste Stream Comments:
CORB Waste Sequence Number: 148629
Comments: G-09. - Other production or service related processes - Cleanout of parts washers and general plant maintenance. Used for auto and equipment maintence as well. Degreasing activities.
Waste Sequence Number: 3310482
Sequence Number: 1

Comments: W-219. - "Other organic Liquids" - Methyl ethyl ketone and other paint related materials. Paint sludge, and paint solids with other light solvents included in the F005 list.
Waste Sequence Number: 3334836
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 148629
Waste Sequence Number: 3334836
Sequence Number: 7531949
WCDA Code: D001

Waste Sequence Number: 3334836
Sequence Number: 7531950
WCDA Code: D035

Waste Sequence Number: 3334836

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Sequence Number: 7531951
WCDA Code: F005

Waste Sequence Number: 3310482
Sequence Number: 7451631
WCDA Code: D001

Waste Sequence Number: 3310482
Sequence Number: 7451632
WCDA Code: D018

Waste Stream Source Code:
CORB Waste Sequence Number: 148629
Waste Sequence Number: 3310482
Sequence Number: 1
WCDD Code: G09

Waste Sequence Number: 3334836
Sequence Number: 1
WCDD Code: G06

Name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address: N 21451 HWY 101
City,State,Zip: SHELTON, WA 98584
Facility Address 2: Not reported
Facility ID: 36292444
EPA ID: WAD988502340
NAICS: 221111
State Waste Code Desc: Not reported
Federal Waste Code Desc: D001, D018, F005
Form Comm: Not reported
Data Year: 2013
Permit by Rule: False
Mailing Address 2: Not reported
Treatment by Generator: False
Mixed Radioactive Waste: False
Importer of Hazardous Waste: False
Immediate Recycler: False
Treatment/Storage/Disposal/Recycling Facility: False
Generator of Dangerous Fuel Waste: False
Generator Marketing to Burner: False
Other Marketers (i.e., blender, distributor, etc.): False
Utility Boiler Burner: False
Industry Boiler Burner: False
Industrial Furnace: False
Smelter Defferal: False
Universal Waste: Not reported
Off-Specification: Not reported
LN Address 2: Not reported
Tax Reg #: 278012340
Business Type: Hydro Electric Generation
Mail Name: Tacoma Public Utilities Env. Compliance
Mailing Address: 3628 S 35TH ST
Mailing City,State,Zip: TACOMA, WA 98409-3192
Legal Organization Name: Tacoma Public Utilities
Legal Organization Type: Municipal

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Russell S Post
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	rpost@cityoftacoma.org
Gen Status Code:	LQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Mixed Paint Related Solvents and Sludge
CORb Sequence Number:	143624
Sequence Number:	3254504

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	3731
Quanity Unit:	LB
Kilograms Quanity:	1692.38162
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W203
Description:	Spent Voltz Parts Cleaner
CORb Sequence Number:	143624
Sequence Number:	3254498
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	113
Quanity Unit:	LB
Kilograms Quanity:	51.2568008
Density Number:	0
Density Quanity:	Not reported

Shipments Send:

CORB Waste Sequence Number:	143624
Waste Sequence Number:	3254504
Sequence Number:	1718387
Shipment Date:	2013-12-12 00:00:00
Mainfest Document ID:	006725127FLE
Reported Quanity:	3731
Unit of Measure:	LB
Kilograms Quanity:	1692.38162
Receiving EPAID:	ARD981057870
Waste Sequence Number:	3254498
Sequence Number:	1718369
Shipment Date:	2013-10-17 00:00:00
Mainfest Document ID:	005225300FLE
Reported Quanity:	113
Unit of Measure:	LB
Kilograms Quanity:	51.2568008
Receiving EPAID:	WAD981769110

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	143624
Waste Sequence Number:	3254498
Sequence Number:	810725
Received EPAID:	WAD981769110
Managed Quanity:	113

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Kilogram Quanity: 51.2568008
Recycled Percentage: 0
Waste Management System Code: H061

Waste Sequence Number: 3254504
Sequence Number: 810751
Received EPAID: ARD981057870
Managed Quanity: 3731
Kilogram Quanity: 1692.38162
Recycled Percentage: 0
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 143624
Comments: G-09. Change out of parts sovent from parts washer. Parts washer used during routine maintenance.
Waste Sequence Number: 3254498
Sequence Number: 1

Comments: A-7 - Internal recoating of Cushman Penstocks. When they are finished no more of this waste will be produced. A-8. Mixture contains Methyl Ethyl Ketone with inorganic paint sludge.
Waste Sequence Number: 3254504
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 143624
Waste Sequence Number: 3254498
Sequence Number: 7236436
WCDA Code: D001

Waste Sequence Number: 3254498
Sequence Number: 7236437
WCDA Code: D018

Waste Sequence Number: 3254504
Sequence Number: 7236757
WCDA Code: D001

Waste Sequence Number: 3254504
Sequence Number: 7236758
WCDA Code: F005

Waste Stream Source Code:
CORB Waste Sequence Number: 143624
Waste Sequence Number: 3254504
Sequence Number: 1
WCDD Code: G06

Waste Sequence Number: 3254498
Sequence Number: 1
WCDD Code: G09

Name: TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address: N 21451 HWY 101

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	36292444
EPA ID:	WAD988502340
NAICS:	221111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001, D035, F005
Form Comm:	Not reported
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Public Utilities Env. Compliance
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Russell S Post
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Site Contact Email:	rpost@cityoftacoma.org
Gen Status Code:	MQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Used Paint Thinner and Sludge
CORb Sequence Number:	138321
Sequence Number:	2688654
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	918
Quanity Unit:	LB
Kilograms Quanity:	416.404807
Density Number:	0
Density Quanity:	Not reported

Shipments Send:

CORB Waste Sequence Number:	138321
Waste Sequence Number:	2688654
Sequence Number:	1403620
Shipment Date:	2012-06-26 00:00:00
Mainfest Document ID:	005122404FLE
Reported Quanity:	918
Unit of Measure:	LB
Kilograms Quanity:	416.404807
Receiving EPAID:	ARD981057870

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	138321
Waste Sequence Number:	2688654
Sequence Number:	681286

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Received EPAID:	ARD981057870
Managed Quanity:	918
Kilogram Quanity:	416.404807
Recycled Percentage:	Not reported
Waste Management System Code:	H061

Waste Stream Comments:

CORB Waste Sequence Number:	138321
Comments:	A-8. W219 - Spent paint thinner used for surface preparation and paint equipment cleanup.
Waste Sequence Number:	2688654
Sequence Number:	1

Waste Stream EPA Code:

CORB Waste Sequence Number:	138321
Waste Sequence Number:	2688654
Sequence Number:	6008994
WCDA Code:	D001
Waste Sequence Number:	2688654
Sequence Number:	6008995
WCDA Code:	D035
Waste Sequence Number:	2688654
Sequence Number:	6008996
WCDA Code:	F005

Waste Stream Source Code:

CORB Waste Sequence Number:	138321
Waste Sequence Number:	2688654
Sequence Number:	1
WCDD Code:	G06

Name:	TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address:	N 21451 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	36292444
EPA ID:	WAD988502340
NAICS:	221111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001, D018
Form Comm:	Not reported
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Public Utilities Env. Compliance
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Russell S Post
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	rpost@cityoftacoma.org
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W203
Description:	Waste Solvent and Fuels
CORb Sequence Number:	133560
Sequence Number:	2651660
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	113
Quanity Unit:	LB
Kilograms Quanity:	51.2568008
Density Number:	0
Density Quanity:	Not reported

Shipments Send:

CORB Waste Sequence Number:	133560
Waste Sequence Number:	2651660
Sequence Number:	1310635
Shipment Date:	2011-07-19 00:00:00
Mainfest Document ID:	004448533FLE
Reported Quanity:	113
Unit of Measure:	LB
Kilograms Quanity:	51.2568008
Receiving EPAID:	WAD981769110

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	133560
Waste Sequence Number:	2651660
Sequence Number:	647689
Received EPAID:	WAD981769110
Managed Quanity:	113
Kilogram Quanity:	51.2568008
Recycled Percentage:	Not reported
Waste Management System Code:	H061

Waste Stream Comments:

CORB Waste Sequence Number:	133560
Comments:	G09. Clean out of parts washers. Contaminated parts washer solvent contains grease, grit, and gas (benzene).
Waste Sequence Number:	2651660
Sequence Number:	1

Waste Stream EPA Code:

CORB Waste Sequence Number:	133560
Waste Sequence Number:	2651660
Sequence Number:	5833404
WCDA Code:	D001

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Waste Sequence Number:	2651660
Sequence Number:	5833405
WCDA Code:	D018

Name:	TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address:	N 21451 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	36292444
EPA ID:	WAD988502340
NAICS:	221111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Power Environ. Compliance
Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Russell S Post
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	rpost@cityoftacoma.org
Gen Status Code:	SQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	TACOMA PUBLIC UTILITIES CUSHMAN DAM
Address:	N 21451 HWY 101
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	36292444
EPA ID:	WAD988502340
NAICS:	221111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	278012340
Business Type:	Hydro Electric Generation
Mail Name:	Tacoma Power Environ. Compliance

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Mailing Address:	3628 S 35TH ST
Mailing City,State,Zip:	TACOMA, WA 98409-3192
Legal Organization Name:	Tacoma Public Utilities
Legal Organization Type:	Municipal
Legal Contact:	Not reported
Legal Address:	3628 S 35TH ST
Legal Address 2:	Not reported
Legal City,State,Zip:	TACOMA, WA 98409-3192
Legal Phone Number:	(253)502-8000
Legal Effective Date:	Not reported
Land Organization Name:	Tacoma Public Utilities
Land Organization Type:	Municipal
Land Contact:	Not reported
Land Address:	3628 S 35TH ST
Land City,State,Zip:	TACOMA, WA 98409-3192
Land Phone Number:	(253)502-8000
Operator Organization Name:	Tacoma Power
Operator Organization Type:	Municipal
Operator:	Not reported
Operator Address:	3628 S 35TH ST
Operator Address 2:	Not reported
Operator City,State,Zip:	TACOMA, WA 98409-3192
Operator Phone Number:	253-502-8000
Operator Effective Date:	Not reported
Site Contact:	Russell S Post
Site Contact Address:	3628 S 35TH ST
Contact City,State,Zip:	TACOMA, WA 98409-3192
Site Contact Phone Number:	(253)502-8300
Site Contact Email:	rpost@cityoftacoma.org
Gen Status Code:	MQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

WCDB Code:	W001
Description:	Corrosive labpack - off spec chemicals
CORb Sequence Number:	122789
Sequence Number:	2138954
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	50
Quanity Unit:	LB
Kilograms Quanity:	22.680000390096009
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W001
Description:	Flammable liquid labpack
CORb Sequence Number:	122789
Sequence Number:	2138945
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	10
Quanity Unit:	LB
Kilograms Quanity:	4.5360000780192014
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W002
Description:	Lead Paint Chips and Rags
CORb Sequence Number:	122789
Sequence Number:	2138872
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	150
Quanity Unit:	LB
Kilograms Quanity:	68.040001170288022
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W211
Description:	Loospack aerosol consolodation
CORb Sequence Number:	122789
Sequence Number:	2138906
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	20
Quanity Unit:	LB
Kilograms Quanity:	9.0720001560384027
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W209
Description:	Loose pack paints solvents and coatings
CORb Sequence Number:	122789
Sequence Number:	2138859
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	800
Quanity Unit:	LB
Kilograms Quanity:	362.88000624153614
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W001
Description:	Caustic Labpack
CORb Sequence Number:	122789
Sequence Number:	2138965

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	75
Quanity Unit:	LB
Kilograms Quanity:	34.020000585144011
Density Number:	0
Density Quanity:	Not reported

Shipments Send:

CORB Waste Sequence Number:	122789
Waste Sequence Number:	2138945
Sequence Number:	1025942
Shipment Date:	12/22/2009
Mainfest Document ID:	186168
Reported Quanity:	10
Unit of Measure:	LB
Kilograms Quanity:	4.5360000780192
Receiving EPAID:	WAD991281767
Waste Sequence Number:	2138906
Sequence Number:	1025835
Shipment Date:	12/22/2009
Mainfest Document ID:	186168
Reported Quanity:	20
Unit of Measure:	LB
Kilograms Quanity:	9.0720001560384
Receiving EPAID:	WAD991281767
Waste Sequence Number:	2138965
Sequence Number:	1026006
Shipment Date:	12/22/2009
Mainfest Document ID:	186168
Reported Quanity:	75
Unit of Measure:	LB
Kilograms Quanity:	34.020000585144
Receiving EPAID:	WAD991281767
Waste Sequence Number:	2138872
Sequence Number:	1025777
Shipment Date:	12/22/2009
Mainfest Document ID:	186168
Reported Quanity:	150
Unit of Measure:	LB
Kilograms Quanity:	68.040001170288
Receiving EPAID:	WAD991281767
Waste Sequence Number:	2138859
Sequence Number:	1025759
Shipment Date:	12/22/2009
Mainfest Document ID:	186168
Reported Quanity:	800
Unit of Measure:	LB
Kilograms Quanity:	362.880006241536
Receiving EPAID:	WAD991281767
Waste Sequence Number:	2138954
Sequence Number:	1025973

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Shipment Date: 12/22/2009
Mainfest Document ID: 186168
Reported Quanity: 50
Unit of Measure: LB
Kilograms Quanity: 22.680000390096
Receiving EPAID: WAD991281767

Waste Stream Off Site Mgmt:
Waste CORB Sequence Number: 122789
Waste Sequence Number: 2138872
Sequence Number: 528167
Received EPAID: WAD991281767
Managed Quanity: 150
Kilogram Quanity: 68.040001170288022
Recycled Percentage: Not reported
Waste Management System Code: H111

Waste Sequence Number: 2138945
Sequence Number: 528271
Received EPAID: WAD991281767
Managed Quanity: 10
Kilogram Quanity: 4.5360000780192014
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2138859
Sequence Number: 528148
Received EPAID: WAD991281767
Managed Quanity: 800
Kilogram Quanity: 362.88000624153614
Recycled Percentage: Not reported
Waste Management System Code: H061

Waste Sequence Number: 2138954
Sequence Number: 528281
Received EPAID: WAD991281767
Managed Quanity: 50
Kilogram Quanity: 22.680000390096009
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2138906
Sequence Number: 528208
Received EPAID: WAD991281767
Managed Quanity: 20
Kilogram Quanity: 9.0720001560384027
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2138965
Sequence Number: 528285
Received EPAID: WAD991281767
Managed Quanity: 75
Kilogram Quanity: 34.020000585144011
Recycled Percentage: Not reported
Waste Management System Code: H141

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Waste Stream Comments:

CORB Waste Sequence Number:	122789
Comments:	G19. Other one time and intermittant processes - Pack up of accumulated materials for transport and disposal. Flammable materials from old stock no longer used.
Waste Sequence Number:	2138945
Sequence Number:	1
Comments:	G19. Other one time or intermittent processes - General clean out of outdated chemicals no longer used at the hydro electric project.
Waste Sequence Number:	2138965
Sequence Number:	1
Comments:	G19. Other one time or intermittant processes - Labpacking of out of date and surplus chemicals no longer used at the hydroproject.
Waste Sequence Number:	2138954
Sequence Number:	1
Comments:	G19. Other one time or intermittent processes - Clean out and loose packing of out dated unused paints and coatings left over from hydro electric plant maintenance.
Waste Sequence Number:	2138859
Sequence Number:	1
Comments:	G09. Other production or service related processes - Cans accumulated from hydro project maintenance activities. Aerosol paints and petroleum distillates.
Waste Sequence Number:	2138906
Sequence Number:	1

Waste Stream EPA Code:

CORB Waste Sequence Number:	122789
Waste Sequence Number:	2138859
Sequence Number:	4639541
WCDA Code:	D008
Waste Sequence Number:	2138954
Sequence Number:	4639305
WCDA Code:	D002
Waste Sequence Number:	2138945
Sequence Number:	4639139
WCDA Code:	D001
Waste Sequence Number:	2138859
Sequence Number:	4639540
WCDA Code:	D001
Waste Sequence Number:	2138859
Sequence Number:	4639542
WCDA Code:	D035
Waste Sequence Number:	2138906
Sequence Number:	4638853
WCDA Code:	D001

TACOMA PUBLIC UTILITIES CUSHMAN DAM (Continued) **1001806862**

Waste Sequence Number: 2138965
Sequence Number: 4639366
WCDA Code: D002

Waste Sequence Number: 2138872
Sequence Number: 4638892
WCDA Code: D008

Waste Stream Source Code:
CORB Waste Sequence Number: 122789
Waste Sequence Number: 2138906
Sequence Number: 1
WCDD Code: G09

Waste Sequence Number: 2138872
Sequence Number: 1
WCDD Code: G06

Waste Sequence Number: 2138859
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2138945
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2138965
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2138954
Sequence Number: 1
WCDD Code: G19

Click this hyperlink while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

56
WSW
> 1
1.106 mi.
5841 ft.

TECHWOOD **FINDS** **1024409130**
121 W ENTERPISE RD ATTN: PAUL BOUSKA **N/A**
SHELTON, WA 98584

Relative: Higher

Actual: 285 ft.

FINDS:

Registry ID: 110070325103

Environmental Interest/Information System
OSHA ESTABLISHMENT

Click this hyperlink while viewing on your computer to access
additional FINDS: detail in the EDR Site Report.

K57 **ROSAND DAM** **WA ALLSITES** **S110626749**
East **N/A**
> 1 **, WA**
1.106 mi.
5842 ft. **Site 1 of 2 in cluster K**

Relative:
Lower

Actual:
216 ft.

ALLSITES:

Facility Name:	ROSAND DAM
Facility Id:	55386655
Interaction:	51414
Interaction 1:	A
Interaction 2:	DAM
Ecology Program:	WATRES
Program Data:	DSS
Facility Alt.:	Not reported
Program ID:	Not reported
Date Interaction:	1999-05-26 00:00:00
Date Interaction 3:	Dam Site
Latitude:	47.251844484999999
Longitude:	-123.09810706899999

K58 **ROSAND DAM** **FINDS** **1007068795**
East **N/A**
> 1 **MASON (County), WA**
1.111 mi.
5868 ft. **Site 2 of 2 in cluster K**

Relative:
Lower

Actual:
216 ft.

FINDS:

Registry ID: 110015453953

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

I59 **VACANT** **PADS** **1005481603**
SW **450 W. ENTERPRISE RD.** **WAW000000178**
> 1 **SHELTON, WA 98584**
1.112 mi.
5872 ft. **Site 3 of 3 in cluster I**

Relative:
Higher

Actual:
279 ft.

PADS:

EPAID:	WAW000000178
Facility name:	VACANT
Facility Address:	450 W. ENTERPRISE RD. SHELTON, WA 98584
Facility country:	US
Generator:	Yes

VACANT (Continued) **1005481603**

Storer:	No
Transporter:	No
Disposer:	No
Research facility:	No
Smelter:	No
Facility owner name:	PORT OF SHELTON
Contact title:	Not reported
Contact name:	BOB ROBINSON
Contact tel:	000-000-0000
Contact extension:	Not reported
Contact Email:	Not reported
Mailing address:	450 W. BUSINESS PARK RD. SHELTON, WA 98584
Mailing country:	US
Cert. date:	03/26/2002

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60 WSW > 1 1.112 mi. 5873 ft. **PORT OF SHELTON ALL STAR AERO** **WA HSL** **S100836275**
SANDERSON FIELD **WA CSCSL** **N/A**
SHELTON, WA 98584 **WA ALLSITES**

Relative: Higher

Actual: 284 ft.

HSL:

Name:	SHELTON PORT OF ALL STAR AERO
Address:	Not reported
City,State,Zip:	SHELTON, WA
edr_fstat:	WA
edr_fzip:	Not reported
edr_fcnty:	MASON
edr_zip:	Not reported
Facility Type:	**Hazardous Sites List**
Facility Status:	Cleanup Started
FSID Number:	1187
Rank:	4
Region:	SW
EDR Link ID:	1187
Region Decode:	SOUTHWEST REGIONAL OFFICE

CSCSL:

Facility ID:	1187
Region:	Southwest
Lat/Long:	47.24349 / -123.14355
Brownfield Status:	Not reported
Rank Status:	4
Clean Up Siteid:	2411
Site Status:	Cleanup Started
PSI?:	Not reported
Contaminant Name:	Halogenated Organics
Ground Water:	Confirmed Above Cleanup Level
Surface Water:	Not reported
Soil:	Not reported
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Responsible Unit:	Southwest

Facility ID: 1187

PORT OF SHELTON ALL STAR AERO (Continued) **S100836275**

Region: Southwest
Lat/Long: 47.24349 / -123.14355
Brownfield Status: Not reported
Rank Status: 4
Clean Up Siteid: 2411
Site Status: Cleanup Started
PSI?: Not reported
Contaminant Name: Metals Priority Pollutants
Ground Water: Confirmed Above Cleanup Level
Surface Water: Suspected
Soil: Confirmed Above Cleanup Level
Sediment: Not reported
Air: Suspected
Bedrock: Not reported
Responsible Unit: Southwest

Facility ID: 1187
Region: Southwest
Lat/Long: 47.24349 / -123.14355
Brownfield Status: Not reported
Rank Status: 4
Clean Up Siteid: 2411
Site Status: Cleanup Started
PSI?: Not reported
Contaminant Name: Petroleum Products-Unspecified
Ground Water: Suspected
Surface Water: Suspected
Soil: Confirmed Above Cleanup Level
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Southwest

ALLSITES:
Facility Name: PORT OF SHELTON ALL STAR AERO
Facility Id: 1187

Interaction: 2322
Interaction 1: A
Interaction 2: SCS
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: PORT OF SHELTON ALL STAR AERO
Program ID: Not reported
Date Interaction: 1900-01-01 00:00:00
Date Interaction 3: State Cleanup Site
Latitude: 47.24348449
Longitude: -123.14353506400001

L61 **SHELTON WATER RECLAMATION FACILITY** **WA ALLSITES** **S110123786**
SSW **10891 SR101** **WA NPDES** **N/A**
> 1 **SHELTON, WA 98584**
1.127 mi.
5952 ft. **Site 1 of 2 in cluster L**

Relative:
Higher

Actual:
266 ft.

ALLSITES:

Facility Name:	SHELTON WATER RECLAMATION FACILITY
Facility Id:	9737
Interaction:	103018
Interaction 1:	A
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	CITY OF SHELTON WWTP CLASS A RECLAIM PLANT
Program ID:	CRK000079820
Date Interaction:	2012-05-30 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.234994489999998
Longitude:	-123.133985068

Interaction:	88809
Interaction 1:	A
Interaction 2:	MUNI2GROUNDSWDP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	SHELTON WATER RECLAMATION FACILITY
Program ID:	ST0006216
Date Interaction:	2009-11-01 00:00:00
Date Interaction 3:	Municipal to ground SWDP
Latitude:	47.234994489999998
Longitude:	-123.133985068

NPDES:

Name:	SHELTON WATER RECLAMATION FACILITY
Address:	10891 SR101
City,State,Zip:	SHELTON, WA 98584
Facility Status:	Not reported
Facility Type:	Municipal to ground SWDP IP
Admin Region:	Southwest
Date Issued:	07/15/2016
Latitude:	Not reported
Longitude:	Not reported
Permit ID:	ST0006216
Permit Version:	Not reported
Permit Status:	Active
Permit SubStatus:	Not reported
Ecology Contact:	Not reported
WRIA:	Not reported
Permit Expiration Date:	07/31/2021
Effective Date:	08/01/2016
Days to Expiration:	-837

L62
SSW
> 1
1.127 mi.
5952 ft.

SHELTON WATER RECLAMATION FACILITY
10891 SR101
SHELTON, WA 98584
Site 2 of 2 in cluster L

FINDS **1012281354**
N/A

Relative:
Higher

Actual:
266 ft.

FINDS:

Registry ID: 110040164309

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

M63
ESE
> 1
1.130 mi.
5965 ft.

TRANSMISSIONS PLUS AUTOMOTIVE
31 E VANCE CT
SHELTON, WA 98584
Site 1 of 2 in cluster M

FINDS **1016706238**
N/A

Relative:
Lower

Actual:
238 ft.

FINDS:

Registry ID: 110056478547

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

M64
ESE
> 1
1.130 mi.
5965 ft.

TRANSMISSIONS PLUS AUTOMOTIVE
31 E VANCE CT
SHELTON, WA 98584
Site 2 of 2 in cluster M

WA ALLSITES **S110275923**
N/A

Relative:
Lower

Actual:
238 ft.

ALLSITES:
Facility Name: TRANSMISSIONS PLUS AUTOMOTIVE
Facility Id: 4542

Interaction: 91308
Interaction 1: I
Interaction 2: LSC
Ecology Program: HAZWASTE

TRANSMISSIONS PLUS AUTOMOTIVE (Continued) **S110275923**

Program Data:	LSC
Facility Alt.:	Transmissions Plus Automotive
Program ID:	Not reported
Date Interaction:	2009-07-22 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.240872484999997
Longitude:	-123.10056507199999

N65 **AERO CONTROLS INC SANDERSON WAY** **RCRA-LQG** **1000696805**
West **W 231 SANDERSON WAY** **WA ALLSITES** **WAD988504288**
> 1 **SHELTON, WA 98584**
1.134 mi.
5990 ft. **Site 1 of 3 in cluster N**

Relative:
Higher

Actual:
289 ft.

RCRA-LQG:

Date form received by agency:	03/03/1999
Facility name:	AERO CONTROLS INC SANDERSON WAY
Facility address:	W 231 SANDERSON WAY SHELTON, WA 98584
EPA ID:	WAD988504288
Mailing address:	PO BOX 837 AUBURN, WA 98001
Contact:	BRIAN THOMAS
Contact address:	PO BOX 837 AUBURN, WA 98001
Contact country:	US
Contact telephone:	253-735-3350
Contact email:	Not reported
EPA Region:	10
Land type:	Other land type
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	AERO CONTROLS INC
Owner/operator address:	PO BOX 837 AUBURN, WA 98001
Owner/operator country:	US
Owner/operator telephone:	253-735-3350
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	06/05/1996

AERO CONTROLS INC SANDERSON WAY (Continued) **1000696805**

Owner/Op end date: Not reported

Owner/operator name: PORT OF SHELTON
Owner/operator address: 450 W BUSINESS PARK RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: TITUS, JOHN
Owner/operator address: PO BOX 837
AUBURN, WA 98001
Owner/operator country: US
Owner/operator telephone: 253-630-5948
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/27/1998
Site name: AERO CONTROLS INC SANDERSON WAY
Classification: Small Quantity Generator

Date form received by agency: 03/06/1997
Site name: AERO CONTROLS INC SANDERSON WAY
Classification: Small Quantity Generator

Date form received by agency: 03/04/1996
Site name: AERO CONTROLS INC SANDERSON WAY

AERO CONTROLS INC SANDERSON WAY (Continued) **1000696805**

Classification: Large Quantity Generator

Date form received by agency: 03/01/1996
Site name: AERO CONTROLS INC SHELTON-SANDERSON WAY
Classification: Large Quantity Generator

Date form received by agency: 01/01/1995
Site name: AERO CONTROLS INC SANDERSON WAY
Classification: Not a generator, verified

Date form received by agency: 12/31/1994
Site name: AERO CONTROLS INC SANDERSON WAY
Classification: Small Quantity Generator

Hazardous Waste Summary:

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Listing - General
Date violation determined: 06/26/2012
Date achieved compliance: 05/05/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - Small Quantity Handlers
Date violation determined: 06/26/2012
Date achieved compliance: 05/05/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 06/26/2012
Date achieved compliance: 05/05/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

AERO CONTROLS INC SANDERSON WAY (Continued) **1000696805**

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Used Oil - Generators
Date violation determined: 06/26/2012
Date achieved compliance: 05/05/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/26/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Generators
Date achieved compliance: 05/05/2012
Evaluation lead agency: State

Evaluation date: 06/26/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Listing - General
Date achieved compliance: 05/05/2012
Evaluation lead agency: State

Evaluation date: 06/26/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Universal Waste - Small Quantity Handlers
Date achieved compliance: 05/05/2012
Evaluation lead agency: State

Evaluation date: 06/26/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 05/05/2012
Evaluation lead agency: State

Evaluation date: 11/09/1992
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

ALLSITES:
Facility Name: AERO CONTROLS INC SANDERSON WAY
Facility Id: 62294393

Interaction: 55010
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE

AERO CONTROLS INC SANDERSON WAY (Continued) **1000696805**

Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAD988504288
Date Interaction:	1992-03-20 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.246674489999997
Longitude:	-123.145135063

Interaction:	55011
Interaction 1:	I
Interaction 2:	HWP
Ecology Program:	HAZWASTE
Program Data:	HWPPRT
Facility Alt.:	Not reported
Program ID:	WAD988504288
Date Interaction:	1996-01-01 00:00:00
Date Interaction 3:	Hazardous Waste Planner
Latitude:	47.246674489999997
Longitude:	-123.145135063

O66 **WAL MART STORE 2121** **RCRA-SQG** **1004794987**
South **100 E WALLACE KNEELAND BLVD** **WA ALLSITES** **WAR000002113**
> 1 **SHELTON, WA 98584** **FINDS**
1.140 mi. **ECHO**
6018 ft. **Site 1 of 3 in cluster O** **WA MANIFEST**

Relative: **Lower**

Actual: **230 ft.**

RCRA-SQG:

Date form received by agency:	02/25/2019
Facility name:	WAL MART STORE 2121
Facility address:	100 E WALLACE KNEELAND BLVD SHELTON, WA 98584
EPA ID:	WAR000002113
Mailing address:	P.O. BOX 8041 BENTONVILLE, AR 72712
Contact:	ROSE ARNOLD
Contact address:	P.O. BOX 8041 BENTONVILLE, AR 72712
Contact country:	US
Contact telephone:	479-277-8972
Contact email:	ROSE.ARNOLD@WALMART.COM
EPA Region:	10
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	WAL MART STORES INC
Owner/operator address:	P.O. BOX 8041 BENTONVILLE, AR 72712
Owner/operator country:	US
Owner/operator telephone:	479-277-8972
Owner/operator email:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/18/1994
Owner/Op end date: Not reported

Owner/operator name: WALMART INC.
Owner/operator address: P.O. BOX 8041
BENTONVILLE, AR 72712
Owner/operator country: US
Owner/operator telephone: 479-277-8972
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/18/1994
Owner/Op end date: Not reported

Owner/operator name: WALMART INC.
Owner/operator address: P.O. BOX 8041
BENTONVILLE, AR 72712
Owner/operator country: US
Owner/operator telephone: 479-277-8972
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/18/1994
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/22/2018
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/23/2017

WAL MART STORE 2121 (Continued) **1004794987**

Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 06/27/2016
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/23/2016
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/24/2015
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 10/24/2014
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/26/2014
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/26/2013
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/17/2012
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/17/2012
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/24/2011
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 01/03/2011
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/25/2010
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/25/2010
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 03/06/2009
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 12/31/2008
Site name: WAL MART STORE 2121

WAL MART STORE 2121 (Continued) **1004794987**

Classification: Not a generator, verified

Date form received by agency: 02/22/2008
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/07/2007
Site name: WAL MART STORE 2121
Classification: Small Quantity Generator

Date form received by agency: 02/25/2007
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 04/12/2006
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 04/12/2006
Site name: WAL MART STORE 2121
Classification: Not a generator, verified

Date form received by agency: 12/31/2005
Site name: WAL MART STORE 2121
Classification: Not a generator, verified

Date form received by agency: 06/17/2005
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/2004
Site name: WAL MART STORE 2121
Classification: Not a generator, verified

Date form received by agency: 02/18/2004
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/24/2003
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/15/2002
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 05/25/2001
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 06/05/2000
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 06/05/2000
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

WAL MART STORE 2121 (Continued) **1004794987**

Date form received by agency: 01/08/1998
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 06/12/1997
Site name: WAL MART STORE 2121
Classification: Not a generator, verified

Date form received by agency: 06/11/1997
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/1994
Site name: WAL MART STORE 2121
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D018
. Waste name: BENZENE

WAL MART STORE 2121 (Continued) **1004794987**

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D026
. Waste name: CRESOL

. Waste code: D027
. Waste name: 1,4-DICHLOROBENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D043
. Waste name: VINYL CHLORIDE

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U035
. Waste name: BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL

. Waste code: U058
. Waste name: 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE

. Waste code: U072
. Waste name: BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U112
. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA,

WAL MART STORE 2121 (Continued) **1004794987**

5ALPHA, 6BETA)- (OR) LINDANE

. Waste code: U132
. Waste name: HEXACHLOROPHENE (OR) PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-

. Waste code: U134
. Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U150
. Waste name: L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U159
. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

. Waste code: U165
. Waste name: NAPHTHALENE

. Waste code: U182
. Waste name: 1,3,5-TRIOXANE, 2,4,6-TRIMETHYL- (OR) PARALDEHYDE

. Waste code: U188
. Waste name: PHENOL

. Waste code: U200
. Waste name: RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-

. Waste code: U205
. Waste name: SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U240
. Waste name: 2,4-D, SALTS & ESTERS (OR) ACETIC ACID, (2,4-DICHLOROPHENOXY)-, SALTS & ESTERS (OR) DICHLOROPHENOXYACETIC ACID 2,4-D

. Waste code: U248
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYL-BUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS OF 0.3% OR LESS (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS OF 0.3% OR LESS

. Waste code: U249
. Waste name: ZINC PHOSPHIDE ZN3P2, WHEN PRESENT AT CONCENTRATIONS OF 10% OR LESS

. Waste code: U279
. Waste name: CARBARYL (OR) 1-NAPHTHALENOL, METHYLCARBAMATE

. Waste code: U409
. Waste name: CARBAMIC ACID, [1,2-PHENYLENEBIS (IMINOCARBONOTHIOYL)]BIS-, DIMETHYL ESTER (OR) THIOPHANATE-METHYL

. Waste code: U411

WAL MART STORE 2121 (Continued) **1004794987**

. Waste name: PHENOL, 2-(1-METHYLETHOXY)-, METHYLCARBAMATE (OR) PROPOXUR

Violation Status: No violations found

ALLSITES:

Facility Name: WAL MART TIRE & LUBE EXPRESS 12121
Facility Id: 19299

Interaction: 89777
Interaction 1: I
Interaction 2: LSC
Ecology Program: HAZWASTE
Program Data: LSC
Facility Alt.: WalMart Tire & Lube Express #12121
Program ID: Not reported
Date Interaction: 2009-05-19 00:00:00
Date Interaction 3: Local Source Cntrl 7/09-3
Latitude: 47.232507489
Longitude: -123.126000069

Facility Name: WAL MART STORE 2121
Facility Id: 13975422

Interaction: 27867
Interaction 1: A
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Wal Mart Store 2121
Program ID: WAR000002113
Date Interaction: 1995-04-28 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.258454489999998
Longitude: -123.147435061

Interaction: 108986
Interaction 1: A
Interaction 2: HWP
Ecology Program: HAZWASTE
Program Data: HWPPRT
Facility Alt.: Wal Mart Store 2121
Program ID: WAR000002113
Date Interaction: 2014-05-19 00:00:00
Date Interaction 3: Hazardous Waste Planner
Latitude: 47.258454489999998
Longitude: -123.147435061

FINDS:

Registry ID: 110005399764

Environmental Interest/Information System

WAL MART STORE 2121 (Continued) **1004794987**

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1004794987
Registry ID:	110005399764
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110005399764

WA MANIFEST:

Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452311
State Waste Code Desc:	WT02,WSC2
Federal Waste Code Desc:	D001,D002,D003,D004,D005,D006,D007,D008,D009,D010,D011,D016,D018,D022 D026,D027,D035,D039,D043,P075,U002,U072,U134,U154,U165,U205,U210,U249, U279,U409
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Tax Reg #:	601336273
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712
Legal Phone Number:	(479)277-8972
Legal Effective Date:	10/18/1994
Land Organization Name:	Walmart Inc.
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712
Land Phone Number:	(479)277-8972
Operator Organization Name:	Walmart Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712
Operator Phone Number:	(479)277-8972
Operator Effective Date:	10/18/1994
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	Corrosive Liquids
CORb Sequence Number:	165330
Sequence Number:	3495543
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1
Quanity Unit:	LB
Kilograms Quanity:	0.45360000
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	165330
Sequence Number:	3495544
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	41
Quanity Unit:	LB
Kilograms Quanity:	18.5976003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	165330
Sequence Number:	3495545
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	369
Quanity Unit:	LB
Kilograms Quanity:	167.378402
Density Number:	0

WAL MART STORE 2121 (Continued) **1004794987**

Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	165330
Sequence Number:	3495546
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	19
Quanity Unit:	LB
Kilograms Quanity:	8.61840014
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W119
Description:	Oxidizing Liquids
CORb Sequence Number:	165330
Sequence Number:	3495547
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219

WAL MART STORE 2121 (Continued) **1004794987**

Description:	Toxic Liquids
CORb Sequence Number:	165330
Sequence Number:	3495548
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1488
Quanity Unit:	LB
Kilograms Quanity:	674.956811
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Toxic Solids
CORb Sequence Number:	165330
Sequence Number:	3495549
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	121
Quanity Unit:	LB
Kilograms Quanity:	54.8856009
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids
CORb Sequence Number:	165330
Sequence Number:	3495550
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	3452
Quanity Unit:	LB
Kilograms Quanity:	1565.82722
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	165330
Sequence Number:	3495551
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	594
Quanity Unit:	LB
Kilograms Quanity:	269.438404
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	WT02
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	WA State Regulated Solids
CORb Sequence Number:	165330
Sequence Number:	3495552
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	89
Quanity Unit:	LB
Kilograms Quanity:	40.3704006
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	WSC2
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	WA State Regulated Solids
CORb Sequence Number:	165330
Sequence Number:	3495554
Mixed Radioactive Flag:	False

WAL MART STORE 2121 (Continued) **1004794987**

Designation Code:	D
Reported Quanity:	54
Quanity Unit:	LB
Kilograms Quanity:	24.4944004
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	165330
Waste Sequence Number:	3495547
Sequence Number:	958467
Received EPAID:	WAD020257945
Managed Quanity:	4
Kilogram Quanity:	1.81440003
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	3495548
Sequence Number:	958470
Received EPAID:	WAD020257945
Managed Quanity:	1488
Kilogram Quanity:	674.956811
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	3495549
Sequence Number:	958473
Received EPAID:	WAD020257945
Managed Quanity:	121
Kilogram Quanity:	54.8856009
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	3495550
Sequence Number:	958472
Received EPAID:	WAD020257945
Managed Quanity:	3452
Kilogram Quanity:	1565.82722
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	3495555
Sequence Number:	958476
Received EPAID:	WAD020257945
Managed Quanity:	40
Kilogram Quanity:	18.1440003
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	3495563
Sequence Number:	958469
Received EPAID:	WAD020257945
Managed Quanity:	3
Kilogram Quanity:	1.36080002
Recycled Percentage:	Not reported
Waste Management System Code:	H141

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number:	3495543
Sequence Number:	958462
Received EPAID:	WAD020257945
Managed Quanity:	1
Kilogram Quanity:	0.45360000
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495544
Sequence Number:	958460
Received EPAID:	WAD020257945
Managed Quanity:	41
Kilogram Quanity:	18.5976003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495545
Sequence Number:	958463
Received EPAID:	WAD020257945
Managed Quanity:	369
Kilogram Quanity:	167.378402
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495546
Sequence Number:	958466
Received EPAID:	WAD020257945
Managed Quanity:	19
Kilogram Quanity:	8.61840014
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495551
Sequence Number:	958481
Received EPAID:	WAD020257945
Managed Quanity:	594
Kilogram Quanity:	269.438404
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Stream Comments:

CORB Waste Sequence Number:	165330
Comments:	A-8: Damaged product, customer returned product
Waste Sequence Number:	3495545
Sequence Number:	1
Comments:	A-8: Damaged product, customer returned product
Waste Sequence Number:	3495547
Sequence Number:	1
Comments:	A-3: Additional Waste Codes: D018, D026, D039, D043, U210, U279 A-8: Damaged product, customer returned product
Waste Sequence Number:	3495548
Sequence Number:	1
Comments:	A-3: Additional Waste Codes: D027, D035 A-8: Damaged product, customer returned product

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 3495550
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D022, D035, D039, U210
Waste Sequence Number: 3495551
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495552
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495554
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495555
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 165330
Waste Sequence Number: 3495543
Sequence Number: 8228789
WCDA Code: D002

Waste Sequence Number: 3495543
Sequence Number: 8228790
WCDA Code: D007

Waste Sequence Number: 3495543
Sequence Number: 8228791
WCDA Code: D008

Waste Sequence Number: 3495543
Sequence Number: 8228792
WCDA Code: D010

Waste Sequence Number: 3495544
Sequence Number: 8228782
WCDA Code: D002

Waste Sequence Number: 3495545
Sequence Number: 8228800
WCDA Code: D001

Waste Sequence Number: 3495545
Sequence Number: 8228801
WCDA Code: D018

Waste Sequence Number: 3495545
Sequence Number: 8228802
WCDA Code: D035

Waste Sequence Number: 3495545
Sequence Number: 8228803
WCDA Code: U002

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 3495545
Sequence Number: 8228804
WCDA Code: U154

Waste Sequence Number: 3495546
Sequence Number: 8228829
WCDA Code: D001

Waste Stream Source Code:
CORB Waste Sequence Number: 165330
Waste Sequence Number: 3495543
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495544
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495554
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495555
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495548
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3495549
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3495550
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3495551
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3495552
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3495563
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3495545
Sequence Number: 1
WCDD Code: G11

Name: WAL MART STORE 2121
Address: 100 E WALLACE KNEELAND BLVD

WAL MART STORE 2121 (Continued) **1004794987**

City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452311
State Waste Code Desc:	WT02,WSC2
Federal Waste Code Desc:	D001,D002,D003,D004,D005,D006,D007,D008,D009,D010,D011,D016,D018,D022 D026,D027,D035,D039,D043,P075,U002,U072,U134,U154,U165,U205,U210,U249, U279,U409
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	Clubs and Supercenters
Mail Name:	Walmart Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	479-277-8972
Legal Effective Date:	10/18/1994
Land Organization Name:	Walmart Inc.
Land Organization Type:	Private
Land Contact:	Rose Arnold
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	479-277-8972
Operator Organization Name:	Walmart Inc.
Operator Organization Type:	Private
Operator:	Rose Arnold
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	479-277-8972
Operator Effective Date:	10/18/1994
Site Contact:	Rose Arnold
Site Contact Address:	P.O. Box 8041

WAL MART STORE 2121 (Continued) **1004794987**

Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	479-277-8972
Site Contact Email:	rose.arnold@walmart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	Corrosive Liquids
CORb Sequence Number:	165330
Sequence Number:	3495543
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1
Quanity Unit:	LB
Kilograms Quanity:	0.45360000
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	165330
Sequence Number:	3495544

WAL MART STORE 2121 (Continued) **1004794987**

Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	41
Quanity Unit:	LB
Kilograms Quanity:	18.5976003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	165330
Sequence Number:	3495545
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	369
Quanity Unit:	LB
Kilograms Quanity:	167.378402
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	165330
Sequence Number:	3495546
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	19
Quanity Unit:	LB
Kilograms Quanity:	8.61840014
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0

WAL MART STORE 2121 (Continued) **1004794987**

Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W119
Description:	Oxidizing Liquids
CORb Sequence Number:	165330
Sequence Number:	3495547
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	165330
Sequence Number:	3495548
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1488
Quanity Unit:	LB
Kilograms Quanity:	674.956811
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Toxic Solids
CORb Sequence Number:	165330
Sequence Number:	3495549
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	121
Quanity Unit:	LB

WAL MART STORE 2121 (Continued) **1004794987**

Kilograms Quanity:	54.8856009
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids
CORb Sequence Number:	165330
Sequence Number:	3495550
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	3452
Quanity Unit:	LB
Kilograms Quanity:	1565.82722
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	165330
Sequence Number:	3495551
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	594
Quanity Unit:	LB
Kilograms Quanity:	269.438404
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	WT02
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1

WAL MART STORE 2121 (Continued) **1004794987**

WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	WA State Regulated Solids
CORb Sequence Number:	165330
Sequence Number:	3495552
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	89
Quanity Unit:	LB
Kilograms Quanity:	40.3704006
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	WSC2
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	WA State Regulated Solids
CORb Sequence Number:	165330
Sequence Number:	3495554
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	54
Quanity Unit:	LB
Kilograms Quanity:	24.4944004
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	165330
Waste Sequence Number:	3495547
Sequence Number:	958467
Received EPAID:	WAD020257945
Managed Quanity:	4
Kilogram Quanity:	1.81440003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495548
Sequence Number:	958470
Received EPAID:	WAD020257945
Managed Quanity:	1488
Kilogram Quanity:	674.956811
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495549
Sequence Number:	958473
Received EPAID:	WAD020257945
Managed Quanity:	121

WAL MART STORE 2121 (Continued) **1004794987**

Kilogram Quanity:	54.8856009
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495550
Sequence Number:	958472
Received EPAID:	WAD020257945
Managed Quanity:	3452
Kilogram Quanity:	1565.82722
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495555
Sequence Number:	958476
Received EPAID:	WAD020257945
Managed Quanity:	40
Kilogram Quanity:	18.1440003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495563
Sequence Number:	958469
Received EPAID:	WAD020257945
Managed Quanity:	3
Kilogram Quanity:	1.36080002
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495543
Sequence Number:	958462
Received EPAID:	WAD020257945
Managed Quanity:	1
Kilogram Quanity:	0.45360000
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495544
Sequence Number:	958460
Received EPAID:	WAD020257945
Managed Quanity:	41
Kilogram Quanity:	18.5976003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495545
Sequence Number:	958463
Received EPAID:	WAD020257945
Managed Quanity:	369
Kilogram Quanity:	167.378402
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3495546
Sequence Number:	958466
Received EPAID:	WAD020257945
Managed Quanity:	19
Kilogram Quanity:	8.61840014

WAL MART STORE 2121 (Continued) **1004794987**

Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3495551
Sequence Number: 958481
Received EPAID: WAD020257945
Managed Quanity: 594
Kilogram Quanity: 269.438404
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 165330
Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495545
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495547
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D018, D026, D039, D043, U210, U279 A-8: Damaged product, customer returned product
Waste Sequence Number: 3495548
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D027, D035 A-8: Damaged product, customer returned product
Waste Sequence Number: 3495550
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D022, D035, D039, U210
Waste Sequence Number: 3495551
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495552
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495554
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3495555
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 165330
Waste Sequence Number: 3495543
Sequence Number: 8228789
WCDA Code: D002

Waste Sequence Number: 3495543
Sequence Number: 8228790
WCDA Code: D007

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 3495543
Sequence Number: 8228791
WCDA Code: D008

Waste Sequence Number: 3495543
Sequence Number: 8228792
WCDA Code: D010

Waste Sequence Number: 3495544
Sequence Number: 8228782
WCDA Code: D002

Waste Sequence Number: 3495545
Sequence Number: 8228800
WCDA Code: D001

Waste Sequence Number: 3495545
Sequence Number: 8228801
WCDA Code: D018

Waste Sequence Number: 3495545
Sequence Number: 8228802
WCDA Code: D035

Waste Sequence Number: 3495545
Sequence Number: 8228803
WCDA Code: U002

Waste Sequence Number: 3495545
Sequence Number: 8228804
WCDA Code: U154

Waste Sequence Number: 3495546
Sequence Number: 8228829
WCDA Code: D001

Waste Stream Source Code:
CORB Waste Sequence Number: 165330
Waste Sequence Number: 3495543
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495544
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495554
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495555
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 3495548
Sequence Number: 1
WCDD Code: G11

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number:	3495549
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3495550
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3495551
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3495552
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3495563
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3495545
Sequence Number:	1
WCDD Code:	G11

Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	WT02,WSC2
Federal Waste Code Desc:	D001,D002,D003,D004,D005,D006,D007,D008,D009,D010,D011,D016,D018,D022 D027,D035,D043,P075,U002,U072,U134,U154,U159,U165,U205,U210,U249,U279, U409,D026,D039
Form Comm:	Not reported
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	Clubs and Supercenters

WAL MART STORE 2121 (Continued) **1004794987**

Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	479-277-8972
Legal Effective Date:	10/18/1994
Land Organization Name:	Wal-Mart Stores, Inc.
Land Organization Type:	Private
Land Contact:	Rose Arnold
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	479-277-8972
Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Rose Arnold
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	479-277-8972
Operator Effective Date:	10/18/1994
Site Contact:	Rose Arnold
Site Contact Address:	P.O. Box 8041
Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	479-277-8972
Site Contact Email:	rose.arnold@walmart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1

WAL MART STORE 2121 (Continued) **1004794987**

WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	159301
Sequence Number:	3418809
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	557
Quanity Unit:	LB
Kilograms Quanity:	252.655204
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	WT02
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	WA State Regulated Solids
CORb Sequence Number:	159301
Sequence Number:	3418810
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	150
Quanity Unit:	LB
Kilograms Quanity:	68.0400011
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	Corrosive Liquids
CORb Sequence Number:	159301
Sequence Number:	3418801
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W004
Description:	P-Listed Waste Nicotine
CORb Sequence Number:	159301
Sequence Number:	3418816
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W405
Description:	EXPLOSIVES
CORb Sequence Number:	159301
Sequence Number:	3418818
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Toxic Solids
CORb Sequence Number:	159301

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number:	3418807
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	111
Quanity Unit:	LB
Kilograms Quanity:	50.3496008
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids
CORb Sequence Number:	159301
Sequence Number:	3418808
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	3534
Quanity Unit:	LB
Kilograms Quanity:	1603.02242
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	159301
Sequence Number:	3418806
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1612
Quanity Unit:	LB
Kilograms Quanity:	731.203212
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	WT02
State Only Waste Code 2:	Not reported
Report Managed On Site:	0

WAL MART STORE 2121 (Continued) **1004794987**

KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	WA State Regulated Liquids
CORb Sequence Number:	159301
Sequence Number:	3418820
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	131
Quanity Unit:	LB
Kilograms Quanity:	59.4216010
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	159301
Sequence Number:	3418802
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	182
Quanity Unit:	LB
Kilograms Quanity:	82.5552014
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	159301
Sequence Number:	3418803
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	408

WAL MART STORE 2121 (Continued) **1004794987**

Quanity Unit:	LB
Kilograms Quanity:	185.068803
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	159301
Waste Sequence Number:	3418804
Sequence Number:	912056
Received EPAID:	WAD020257945
Managed Quanity:	25
Kilogram Quanity:	11.3400001
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3418815
Sequence Number:	912067
Received EPAID:	WAD020257945
Managed Quanity:	33
Kilogram Quanity:	14.9688002
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3418801
Sequence Number:	912050
Received EPAID:	WAD020257945
Managed Quanity:	4
Kilogram Quanity:	1.81440003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3418816
Sequence Number:	912059
Received EPAID:	WAD020257945
Managed Quanity:	4
Kilogram Quanity:	1.81440003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3418818
Sequence Number:	912054
Received EPAID:	RID040098352
Managed Quanity:	4
Kilogram Quanity:	1.81440003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3418807
Sequence Number:	912062
Received EPAID:	WAD020257945
Managed Quanity:	111
Kilogram Quanity:	50.3496008
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3418808
Sequence Number:	912063

WAL MART STORE 2121 (Continued) **1004794987**

Received EPAID: WAD020257945
Managed Quanity: 3534
Kilogram Quanity: 1603.02242
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3418802
Sequence Number: 912053
Received EPAID: WAD020257945
Managed Quanity: 182
Kilogram Quanity: 82.5552014
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3418803
Sequence Number: 912055
Received EPAID: WAD020257945
Managed Quanity: 408
Kilogram Quanity: 185.068803
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3418805
Sequence Number: 912058
Received EPAID: WAD020257945
Managed Quanity: 20
Kilogram Quanity: 9.07200015
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3418812
Sequence Number: 912057
Received EPAID: WAD020257945
Managed Quanity: 106
Kilogram Quanity: 48.0816008
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 159301
Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3418803
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3418805
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D018, D026, D039, D043, U210, U279 A-8: Damaged product, customer returned product
Waste Sequence Number: 3418806
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D027, D035, U159 A-8: Damaged product, customer returned product
Waste Sequence Number: 3418808
Sequence Number: 1

WAL MART STORE 2121 (Continued) **1004794987**

Comments: A-3: Additional Waste Codes: D022, D035, D039, U210
Waste Sequence Number: 3418809
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3418810
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3418812
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3418814
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3418815
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3418820
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 159301
Waste Sequence Number: 3418802
Sequence Number: 7928183
WCDA Code: D002

Waste Sequence Number: 3418804
Sequence Number: 7928251
WCDA Code: D001

Waste Sequence Number: 3418803
Sequence Number: 7928231
WCDA Code: D001

Waste Sequence Number: 3418803
Sequence Number: 7928232
WCDA Code: D018

Waste Sequence Number: 3418803
Sequence Number: 7928233
WCDA Code: D035

Waste Sequence Number: 3418803
Sequence Number: 7928234
WCDA Code: U002

Waste Sequence Number: 3418803
Sequence Number: 7928235
WCDA Code: U154

Waste Sequence Number: 3418803
Sequence Number: 7928236
WCDA Code: U159

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 3418805
Sequence Number: 7928276
WCDA Code: D001

Waste Sequence Number: 3418812
Sequence Number: 7928267
WCDA Code: D001

Waste Sequence Number: 3418806
Sequence Number: 7928298
WCDA Code: D005

Waste Stream Source Code:
CORB Waste Sequence Number: 159301
Waste Sequence Number: 3418803
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418804
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418805
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418806
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418807
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418808
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418809
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418810
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418812
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418816
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3418818
Sequence Number: 1
WCDD Code: G11

WAL MART STORE 2121 (Continued) **1004794987**

Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	WT02,WSC2
Federal Waste Code Desc:	D001,D002,D003,D004,D005,D006,D007,D008,D009,D010,D011,D016,D018,D022 D024,D026,D027,D035,D039,D043,P075,U002,U034,U035,U058,U072,U122,U129, U132,U134,U150,U154,U159,U188,U200,U205,U210,U249,U279,U409,U165
Form Comm:	Not reported
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	retail sales
Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	(479)204-3517
Legal Effective Date:	10/18/1994
Land Organization Name:	Wal-Mart Stores, Inc.
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	(479)204-3517
Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	(479)204-3517
Operator Effective Date:	10/18/1994

WAL MART STORE 2121 (Continued) **1004794987**

Site Contact:	Justin Wilson
Site Contact Address:	P.O. Box 8041
Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	(479)204-3517
Site Contact Email:	Justin.P.Wilson@walmart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	154198
Sequence Number:	3367430
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	125
Quanity Unit:	LB
Kilograms Quanity:	56.7000009
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids

WAL MART STORE 2121 (Continued) **1004794987**

CORb Sequence Number:	154198
Sequence Number:	3367437
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	3589
Quanity Unit:	LB
Kilograms Quanity:	1627.97042
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	Corrosive Liquids
CORb Sequence Number:	154198
Sequence Number:	3367429
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	2
Quanity Unit:	LB
Kilograms Quanity:	0.90720001
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	154198
Sequence Number:	3367431
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	454
Quanity Unit:	LB
Kilograms Quanity:	205.934403
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	154198
Sequence Number:	3367438
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	873
Quanity Unit:	LB
Kilograms Quanity:	395.992806
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Flammable Reactive Solids
CORb Sequence Number:	154198
Sequence Number:	3367440
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1
Quanity Unit:	LB
Kilograms Quanity:	0.45360000
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	154198
Sequence Number:	3367433
Mixed Radioactive Flag:	False
Designation Code:	D

WAL MART STORE 2121 (Continued) **1004794987**

Reported Quanity:	18
Quanity Unit:	LB
Kilograms Quanity:	8.16480014
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Oxidizing Solids
CORb Sequence Number:	154198
Sequence Number:	3367434
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	36
Quanity Unit:	LB
Kilograms Quanity:	16.3296002
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	CORROSIVE LIQUIDS
CORb Sequence Number:	154198
Sequence Number:	3367470
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	5
Quanity Unit:	LB
Kilograms Quanity:	2.26800003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W005
Description:	Toxic Solids
CORb Sequence Number:	154198
Sequence Number:	3367443
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	5
Quanity Unit:	LB
Kilograms Quanity:	2.26800003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	WT02
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	WA State Regulated Solids
CORb Sequence Number:	154198
Sequence Number:	3367445
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	42
Quanity Unit:	LB
Kilograms Quanity:	19.0512003
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	154198
Waste Sequence Number:	3367435
Sequence Number:	881063
Received EPAID:	WAD020257945
Managed Quanity:	2147
Kilogram Quanity:	973.879216
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367435
Sequence Number:	881062
Received EPAID:	NVD980895338
Managed Quanity:	585
Kilogram Quanity:	265.356004
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367436
Sequence Number:	881073

WAL MART STORE 2121 (Continued) **1004794987**

Received EPAID:	WAD020257945
Managed Quanity:	189
Kilogram Quanity:	85.7304014
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367436
Sequence Number:	881072
Received EPAID:	NVD980895338
Managed Quanity:	1
Kilogram Quanity:	0.45360000
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367443
Sequence Number:	881077
Received EPAID:	NVD980895338
Managed Quanity:	5
Kilogram Quanity:	2.26800003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367445
Sequence Number:	881085
Received EPAID:	NVD980895338
Managed Quanity:	1
Kilogram Quanity:	0.45360000
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367445
Sequence Number:	881086
Received EPAID:	WAD020257945
Managed Quanity:	41
Kilogram Quanity:	18.5976003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367430
Sequence Number:	881003
Received EPAID:	NVD980895338
Managed Quanity:	43
Kilogram Quanity:	19.5048003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367430
Sequence Number:	881004
Received EPAID:	WAD020257945
Managed Quanity:	82
Kilogram Quanity:	37.1952006
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3367437
Sequence Number:	881074
Received EPAID:	NVD980895338

WAL MART STORE 2121 (Continued) **1004794987**

Managed Quanity: 1220
Kilogram Quanity: 553.392009
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3367437
Sequence Number: 881075
Received EPAID: WAD020257945
Managed Quanity: 2369
Kilogram Quanity: 1074.57841
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 154198
Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3367431
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3367434
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D016,D018, D026, D039, D043, U210, U279 A-8: Damaged product, customer returned product
Waste Sequence Number: 3367435
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D027, D035, U159 A-8: Damaged product, customer returned product
Waste Sequence Number: 3367437
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D022, D035, D039, U210
Waste Sequence Number: 3367438
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3367439
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3367440
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3367442
Sequence Number: 1

Comments: A3 Additional Waste Codes:U034, U035, U058, U122, U129, U132, U150, U188, U200, U205
Waste Sequence Number: 3367443
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3367444
Sequence Number: 1

WAL MART STORE 2121 (Continued) **1004794987**

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3367445
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 154198
Waste Sequence Number: 3367433
Sequence Number: 7698917
WCDA Code: D001

Waste Sequence Number: 3367434
Sequence Number: 7698924
WCDA Code: D001

Waste Sequence Number: 3367470
Sequence Number: 7698868
WCDA Code: D002

Waste Sequence Number: 3367470
Sequence Number: 7698869
WCDA Code: U134

Waste Sequence Number: 3367442
Sequence Number: 7699036
WCDA Code: D001

Waste Sequence Number: 3367430
Sequence Number: 7698782
WCDA Code: D002

Waste Sequence Number: 3367437
Sequence Number: 7699165
WCDA Code: D005

Waste Sequence Number: 3367437
Sequence Number: 7699166
WCDA Code: D006

Waste Sequence Number: 3367437
Sequence Number: 7699167
WCDA Code: D007

Waste Sequence Number: 3367437
Sequence Number: 7699168
WCDA Code: D008

Waste Sequence Number: 3367437
Sequence Number: 7699169
WCDA Code: D011

Waste Stream Source Code:
CORB Waste Sequence Number: 154198
Waste Sequence Number: 3367431
Sequence Number: 1
WCDD Code: G11

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number:	3367433
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367434
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367435
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367436
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367437
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367438
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367439
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367440
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367442
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3367443
Sequence Number:	1
WCDD Code:	G11

Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	WT02,WSC2
Federal Waste Code Desc:	D001,D002,D003,D004,D005,D006,D007,D008,D009,D010,D011,D016,D018,D022 D024,D026,D027,D035,D039,D043,P075,U002,U034,U058,U072,U112,U122,U129, U132,U134,U150,U154,U159,U165,U188,U200,U205,U210,U249,U279,U409
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False

WAL MART STORE 2121 (Continued) **1004794987**

Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	retail sales
Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	(479)204-3517
Legal Effective Date:	10/18/1994
Land Organization Name:	Wal-Mart Stores, Inc.
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	(479)204-3517
Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	(479)204-3517
Operator Effective Date:	10/18/1994
Site Contact:	Justin Wilson
Site Contact Address:	P.O. Box 8041
Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	(479)204-3517
Site Contact Email:	Justin.P.Wilson@walmart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False

WAL MART STORE 2121 (Continued) **1004794987**

Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	WT02
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	WA State Regulated Solids
CORb Sequence Number:	148530
Sequence Number:	3309893
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	15
Quanity Unit:	LB
Kilograms Quanity:	6.80400011
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	148530
Sequence Number:	3309892
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	963
Quanity Unit:	LB
Kilograms Quanity:	436.816807
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Oxidizing Solids
CORb Sequence Number:	148530
Sequence Number:	3309888
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	10
Quanity Unit:	LB
Kilograms Quanity:	4.53600007
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W005
Description:	Toxic Solids
CORb Sequence Number:	148530
Sequence Number:	3309913
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	2
Quanity Unit:	LB
Kilograms Quanity:	0.90720001
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	148530
Sequence Number:	3309885
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	549
Quanity Unit:	LB
Kilograms Quanity:	249.026404

WAL MART STORE 2121 (Continued) **1004794987**

Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	148530
Sequence Number:	3309887
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	52
Quanity Unit:	LB
Kilograms Quanity:	23.5872004
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W004
Description:	P-Listed Waste Nicotine
CORb Sequence Number:	148530
Sequence Number:	3313729
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	2
Quanity Unit:	LB
Kilograms Quanity:	0.90720001
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	148530
Sequence Number:	3309889
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1575
Quanity Unit:	LB
Kilograms Quanity:	714.420012
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids
CORb Sequence Number:	148530
Sequence Number:	3309891
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	3691
Quanity Unit:	LB
Kilograms Quanity:	1674.23762
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	148530
Sequence Number:	3309898
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	22
Quanity Unit:	LB
Kilograms Quanity:	9.97920017
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y

WAL MART STORE 2121 (Continued) **1004794987**

State Only Waste Code 1: Not reported
State Only Waste Code 2: Not reported
Report Managed On Site: 0
KG Managed On Site: 0
Generator Treatment Code: Not reported
Permit By Rule Code: Not reported
WCDE Residence Code: Not reported
WCDH Origin Code: 2
WCDE On Site Code: Not reported
WCDB Code: W110
Description: Corrosive Liquids
CORb Sequence Number: 148530
Sequence Number: 3309884
Mixed Radioactive Flag: False
Designation Code: D
Reported Quanity: 149
Quanity Unit: LB
Kilograms Quanity: 67.5864011
Density Number: 0
Density Quanity: Not reported

Waste Stream Off Site Mgmt:
Waste CORB Sequence Number: 148530
Waste Sequence Number: 3309893
Sequence Number: 839819
Received EPAID: WAD020257945
Managed Quanity: 4
Kilogram Quanity: 1.81440003
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309893
Sequence Number: 839820
Received EPAID: WAD991281767
Managed Quanity: 11
Kilogram Quanity: 4.98960008
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309885
Sequence Number: 839772
Received EPAID: WAD991281767
Managed Quanity: 160
Kilogram Quanity: 72.5760012
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309885
Sequence Number: 839769
Received EPAID: INR000110197
Managed Quanity: 322
Kilogram Quanity: 146.059202
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309885
Sequence Number: 839771

WAL MART STORE 2121 (Continued) **1004794987**

Received EPAID: WAD020257945
Managed Quanity: 57
Kilogram Quanity: 25.8552004
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309885
Sequence Number: 839770
Received EPAID: NVD980895338
Managed Quanity: 10
Kilogram Quanity: 4.53600007
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309887
Sequence Number: 839779
Received EPAID: INR000110197
Managed Quanity: 32
Kilogram Quanity: 14.5152002
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309887
Sequence Number: 839781
Received EPAID: WAD020257945
Managed Quanity: 8
Kilogram Quanity: 3.62880006
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309887
Sequence Number: 839780
Received EPAID: NVD980895338
Managed Quanity: 2
Kilogram Quanity: 0.90720001
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3309887
Sequence Number: 839782
Received EPAID: WAD991281767
Managed Quanity: 10
Kilogram Quanity: 4.53600007
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 3313729
Sequence Number: 842752
Received EPAID: WAD020257945
Managed Quanity: 1
Kilogram Quanity: 0.45360000
Recycled Percentage: 0
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 148530
Comments: A-8: Damaged product, customer returned product

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 3309885
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3309886
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3309888
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D016,D018, D026, D039, D043, U080, U210, U279 A-8: Damaged product, customer returned product
Waste Sequence Number: 3309889
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D027, D035, U159 A-8: Damaged product, customer returned product
Waste Sequence Number: 3309891
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D022, D035, D039, U210
Waste Sequence Number: 3309892
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3309893
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3309898
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3309905
Sequence Number: 1

Comments: A3 Additional Waste Codes:U034, U035, U058, U122, U129, U132, U150, U188, U200, U205
Waste Sequence Number: 3309913
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3309916
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 148530
Waste Sequence Number: 3309905
Sequence Number: 7467741
WCDA Code: D001

Waste Sequence Number: 3309889
Sequence Number: 7467835
WCDA Code: D005

Waste Sequence Number: 3309889

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number: 7467836
WCDA Code: D006

Waste Sequence Number: 3309889
Sequence Number: 7467837
WCDA Code: D007

Waste Sequence Number: 3309889
Sequence Number: 7467838
WCDA Code: D008

Waste Sequence Number: 3309889
Sequence Number: 7467840
WCDA Code: D010

Waste Sequence Number: 3309889
Sequence Number: 7467839
WCDA Code: D011

Waste Sequence Number: 3309891
Sequence Number: 7467855
WCDA Code: D005

Waste Sequence Number: 3309891
Sequence Number: 7467856
WCDA Code: D006

Waste Sequence Number: 3309891
Sequence Number: 7467857
WCDA Code: D007

Waste Sequence Number: 3309891
Sequence Number: 7467858
WCDA Code: D008

Waste Stream Source Code:
CORB Waste Sequence Number: 148530
Waste Sequence Number: 3309885
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3309887
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3309888
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3309889
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 3309890
Sequence Number: 1
WCDD Code: G11

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number:	3309891
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3309883
Sequence Number:	1
WCDD Code:	G32
Waste Sequence Number:	3309884
Sequence Number:	1
WCDD Code:	G32
Waste Sequence Number:	3309886
Sequence Number:	1
WCDD Code:	G32
Waste Sequence Number:	3309916
Sequence Number:	1
WCDD Code:	G32
Waste Sequence Number:	3309918
Sequence Number:	1
WCDD Code:	G32

Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001, D002, D003, D004 D005, D006, D007, D008, D009, D010, D011, D016, D018, D022, D026, D027, D035, D039, D043, P075, U002, U072, U134, U154, U159, U165, U205, U210, U249, U279, U409
Form Comm:	Updating list of waste codesThis facilitys correct name is Walmart Supercenter 2121
Data Year:	2013
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273

WAL MART STORE 2121 (Continued) **1004794987**

Business Type:	retail sales
Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	(479)204-3517
Legal Effective Date:	10/18/1994
Land Organization Name:	Wal-Mart Stores, Inc.
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	(479)204-3517
Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	(479)204-3517
Operator Effective Date:	10/18/1994
Site Contact:	Justin Wilson
Site Contact Address:	P.O. Box 8041
Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	(479)204-3517
Site Contact Email:	Justin.P.Wilson@wal-mart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	Corrosive Liquids
CORb Sequence Number:	143512
Sequence Number:	3251564
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	143512
Sequence Number:	3251571
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	2622
Quanity Unit:	LB
Kilograms Quanity:	1189.33922
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	143512
Sequence Number:	3251580
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	939
Quanity Unit:	LB
Kilograms Quanity:	425.930407
Density Number:	0
Density Quanity:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	143512
Sequence Number:	3251565
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	232
Quanity Unit:	LB
Kilograms Quanity:	105.235201
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	143512
Sequence Number:	3251566
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	807
Quanity Unit:	LB
Kilograms Quanity:	366.055206
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	143512

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number:	3251567
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	37
Quanity Unit:	LB
Kilograms Quanity:	16.7832002
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	143512
Sequence Number:	3251568
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	30
Quanity Unit:	LB
Kilograms Quanity:	13.6080002
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Oxidizing Solids
CORb Sequence Number:	143512
Sequence Number:	3251569
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	15
Quanity Unit:	LB
Kilograms Quanity:	6.80400011
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	WP01
State Only Waste Code 2:	Not reported
Report Managed On Site:	0

WAL MART STORE 2121 (Continued) **1004794987**

KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	WA State Only
CORb Sequence Number:	143512
Sequence Number:	3278341
Mixed Radioactive Flag:	False
Designation Code:	E
Reported Quanity:	12
Quanity Unit:	LB
Kilograms Quanity:	5.44320009
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Toxic Solids
CORb Sequence Number:	143512
Sequence Number:	3251574
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	110
Quanity Unit:	LB
Kilograms Quanity:	49.8960008
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids
CORb Sequence Number:	143512
Sequence Number:	3251575
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	2665

WAL MART STORE 2121 (Continued) **1004794987**

Quanity Unit:	LB
Kilograms Quanity:	1208.84402
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	143512
Waste Sequence Number:	3251574
Sequence Number:	809669
Received EPAID:	INR000110197
Managed Quanity:	110
Kilogram Quanity:	49.8960008
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3251575
Sequence Number:	809671
Received EPAID:	INR000110197
Managed Quanity:	2665
Kilogram Quanity:	1208.84402
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3251566
Sequence Number:	809659
Received EPAID:	INR000110197
Managed Quanity:	807
Kilogram Quanity:	366.055206
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3251567
Sequence Number:	809660
Received EPAID:	INR000110197
Managed Quanity:	37
Kilogram Quanity:	16.7832002
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3251568
Sequence Number:	809661
Received EPAID:	INR000110197
Managed Quanity:	30
Kilogram Quanity:	13.6080002
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3251569
Sequence Number:	809666
Received EPAID:	INR000110197
Managed Quanity:	15
Kilogram Quanity:	6.80400011
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	3278341
Sequence Number:	814660

WAL MART STORE 2121 (Continued) **1004794987**

Received EPAID: INR000110197
Managed Quanity: 12
Kilogram Quanity: 5.44320009
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3251565
Sequence Number: 809658
Received EPAID: INR000110197
Managed Quanity: 232
Kilogram Quanity: 105.235201
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3251564
Sequence Number: 809657
Received EPAID: INR000110197
Managed Quanity: 4
Kilogram Quanity: 1.81440003
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3251571
Sequence Number: 809667
Received EPAID: INR000110197
Managed Quanity: 2622
Kilogram Quanity: 1189.33922
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 3251580
Sequence Number: 809673
Received EPAID: INR000110197
Managed Quanity: 939
Kilogram Quanity: 425.930407
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 143512
Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3251566
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3251567
Sequence Number: 1

Comments: A-8: Damaged product, customer returned product
Waste Sequence Number: 3251569
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D016, D026, D039, D043, U080, U210, U279 A-8: Damaged product, customer returned product
Waste Sequence Number: 3251571
Sequence Number: 1

WAL MART STORE 2121 (Continued) **1004794987**

Comments: A-3: Additional Waste Codes: D026, D027, D035, U080, U159 A-8: Damaged product, customer returned product
Waste Sequence Number: 3251575
Sequence Number: 1

Comments: A-3: Additional Waste Codes: D022, D035, D039, U210
Waste Sequence Number: 3251580
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 143512
Waste Sequence Number: 3251566
Sequence Number: 7223924
WCDA Code: D001

Waste Sequence Number: 3251566
Sequence Number: 7223925
WCDA Code: D018

Waste Sequence Number: 3251566
Sequence Number: 7223926
WCDA Code: D035

Waste Sequence Number: 3251566
Sequence Number: 7223927
WCDA Code: U002

Waste Sequence Number: 3251566
Sequence Number: 7223928
WCDA Code: U154

Waste Sequence Number: 3251566
Sequence Number: 7223929
WCDA Code: U159

Waste Sequence Number: 3251567
Sequence Number: 7223943
WCDA Code: D001

Waste Sequence Number: 3251567
Sequence Number: 7223947
WCDA Code: D005

Waste Sequence Number: 3251567
Sequence Number: 7223944
WCDA Code: D007

Waste Sequence Number: 3251567
Sequence Number: 7223945
WCDA Code: D018

Waste Sequence Number: 3251567
Sequence Number: 7223946
WCDA Code: D035

Waste Stream Source Code:

WAL MART STORE 2121 (Continued) **1004794987**

CORB Waste Sequence Number:	143512
Waste Sequence Number:	3251566
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3251568
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3251569
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3251571
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3251574
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3251575
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3251580
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3278341
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	3251564
Sequence Number:	1
WCDD Code:	G32
Waste Sequence Number:	3251565
Sequence Number:	1
WCDD Code:	G32
Waste Sequence Number:	3251567
Sequence Number:	1
WCDD Code:	G32

Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D016, D018, D022, D024, D026, D027, D035, D039, P001, P075, U002, U034, U035, U058, U072, U080, U122, U129, U132, U150, U154, U159,

WAL MART STORE 2121 (Continued) **1004794987**

	U165, U182, U188, U200, U205, U210, U240, U249, U279, U409, U411
Form Comm:	Not reported
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	retail sales
Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	(479)204-3517
Legal Effective Date:	10/18/1994
Land Organization Name:	Wal-Mart Stores, Inc.
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	(479)204-3517
Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	(479)204-3517
Operator Effective Date:	10/18/1994
Site Contact:	Justin Wilson
Site Contact Address:	P.O. Box 8041
Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	(479)204-3517
Site Contact Email:	Justin.P.Wilson@wal-mart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False

WAL MART STORE 2121 (Continued) **1004794987**

Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	137978
Sequence Number:	2673540
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	489
Quanity Unit:	LB
Kilograms Quanity:	221.810403
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	Corrosive Liquids
CORb Sequence Number:	137978
Sequence Number:	2673541
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	28
Quanity Unit:	LB
Kilograms Quanity:	12.7008002
Density Number:	0
Density Quanity:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	137978
Sequence Number:	2673543
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	731
Quanity Unit:	LB
Kilograms Quanity:	331.581605
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids
CORb Sequence Number:	137978
Sequence Number:	2673559
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1542
Quanity Unit:	LB
Kilograms Quanity:	699.451212
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	137978

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number:	2673547
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	42
Quanity Unit:	LB
Kilograms Quanity:	19.0512003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	137978
Sequence Number:	2673554
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4018
Quanity Unit:	LB
Kilograms Quanity:	1822.56483
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Toxic Solids
CORb Sequence Number:	137978
Sequence Number:	2673556
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0

WAL MART STORE 2121 (Continued) **1004794987**

KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	137978
Sequence Number:	2673561
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	966
Quanity Unit:	LB
Kilograms Quanity:	438.177607
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	137978
Sequence Number:	2673549
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	8
Quanity Unit:	LB
Kilograms Quanity:	3.62880006
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W119
Description:	Oxidizing Liquids
CORb Sequence Number:	137978
Sequence Number:	2673550
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	108

WAL MART STORE 2121 (Continued) **1004794987**

Quanity Unit:	LB
Kilograms Quanity:	48.9888008
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Oxidizing Solids
CORb Sequence Number:	137978
Sequence Number:	2673551
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	11
Quanity Unit:	LB
Kilograms Quanity:	4.98960008
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	137978
Waste Sequence Number:	2673546
Sequence Number:	673556
Received EPAID:	INR000110197
Managed Quanity:	2
Kilogram Quanity:	0.90720001
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673540
Sequence Number:	673547
Received EPAID:	INR000110197
Managed Quanity:	489
Kilogram Quanity:	221.810403
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673541
Sequence Number:	673549
Received EPAID:	INR000110197
Managed Quanity:	28
Kilogram Quanity:	12.7008002
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673543
Sequence Number:	673552
Received EPAID:	INR000110197
Managed Quanity:	731

WAL MART STORE 2121 (Continued) **1004794987**

Kilogram Quanity:	331.581605
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673559
Sequence Number:	673572
Received EPAID:	INR000110197
Managed Quanity:	1542
Kilogram Quanity:	699.451212
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673549
Sequence Number:	673559
Received EPAID:	INR000110197
Managed Quanity:	8
Kilogram Quanity:	3.62880006
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673550
Sequence Number:	673561
Received EPAID:	INR000110197
Managed Quanity:	108
Kilogram Quanity:	48.9888008
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673551
Sequence Number:	673563
Received EPAID:	INR000110197
Managed Quanity:	11
Kilogram Quanity:	4.98960008
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673547
Sequence Number:	673558
Received EPAID:	INR000110197
Managed Quanity:	42
Kilogram Quanity:	19.0512003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673554
Sequence Number:	673566
Received EPAID:	INR000110197
Managed Quanity:	4018
Kilogram Quanity:	1822.56483
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2673556
Sequence Number:	673568
Received EPAID:	INR000110197
Managed Quanity:	4
Kilogram Quanity:	1.81440003

WAL MART STORE 2121 (Continued) **1004794987**

Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 137978
Comments: Damaged product, customer returned product
Waste Sequence Number: 2673543
Sequence Number: 1

Comments: Damaged product, customer returned product
Waste Sequence Number: 2673546
Sequence Number: 1

Comments: Damaged product, customer returned product
Waste Sequence Number: 2673547
Sequence Number: 1

Comments: Damaged product, customer returned product
Waste Sequence Number: 2673550
Sequence Number: 1

Comments: A-8: Damaged product; customer returned product.
Waste Sequence Number: 2673551
Sequence Number: 1

Comments: A-3: D016, D026, U080, U279 A-8: Damaged product, customer returned product
Waste Sequence Number: 2673554
Sequence Number: 1

Comments: A-3: U-411
Waste Sequence Number: 2673556
Sequence Number: 1

Comments: A-3: D026, D027, D035, U080, U159 A-8: Damaged product, customer returned product
Waste Sequence Number: 2673559
Sequence Number: 1

Comments: A-3: D022, D035, D039, U210
Waste Sequence Number: 2673561
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 137978
Waste Sequence Number: 2673540
Sequence Number: 6015096
WCDA Code: D002

Waste Sequence Number: 2673541
Sequence Number: 6015099
WCDA Code: D002

Waste Sequence Number: 2673541
Sequence Number: 6015100
WCDA Code: D008

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 2673543
Sequence Number: 6015114
WCDA Code: D001

Waste Sequence Number: 2673543
Sequence Number: 6015115
WCDA Code: D018

Waste Sequence Number: 2673543
Sequence Number: 6015116
WCDA Code: D035

Waste Sequence Number: 2673543
Sequence Number: 6015117
WCDA Code: U002

Waste Sequence Number: 2673543
Sequence Number: 6015118
WCDA Code: U154

Waste Sequence Number: 2673543
Sequence Number: 6015119
WCDA Code: U159

Waste Sequence Number: 2673559
Sequence Number: 6015209
WCDA Code: D005

Waste Sequence Number: 2673559
Sequence Number: 6015210
WCDA Code: D006

Waste Stream Source Code:
CORB Waste Sequence Number: 137978
Waste Sequence Number: 2673543
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 2673546
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 2673549
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 2673550
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 2673551
Sequence Number: 1
WCDD Code: G11

Waste Sequence Number: 2673554
Sequence Number: 1
WCDD Code: G11

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number:	2673556
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	2673559
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	2673561
Sequence Number:	1
WCDD Code:	G11
Waste Sequence Number:	2673540
Sequence Number:	1
WCDD Code:	G32
Waste Sequence Number:	2673541
Sequence Number:	1
WCDD Code:	G32
Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D016, D018, D022, D026, D027, D035, D039, U002, U034, U072, U080, U154, U159, U165, U248, U249, U279, U409, U411
Form Comm:	Not reported
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	retail sales
Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc

WAL MART STORE 2121 (Continued) **1004794987**

Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	(479)204-0402
Legal Effective Date:	10/18/1994
Land Organization Name:	Wal-Mart Stores, Inc.
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	(479)204-0402
Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	(479)204-0402
Operator Effective Date:	10/18/1994
Site Contact:	Chris Stewart
Site Contact Address:	P.O. Box 8041
Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	(479)204-0402
Site Contact Email:	christopher.stewart@wal-mart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	132212

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number:	2644840
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	2
Quanity Unit:	LB
Kilograms Quanity:	0.90720001
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Toxic Solids
CORb Sequence Number:	132212
Sequence Number:	2644865
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	108
Quanity Unit:	LB
Kilograms Quanity:	48.9888008
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	132212
Sequence Number:	2644862
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	300
Quanity Unit:	LB
Kilograms Quanity:	136.080002
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0

WAL MART STORE 2121 (Continued) **1004794987**

KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Toxic Solids
CORb Sequence Number:	132212
Sequence Number:	2644863
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	17
Quanity Unit:	LB
Kilograms Quanity:	7.71120013
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	132212
Sequence Number:	2644836
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	465
Quanity Unit:	LB
Kilograms Quanity:	210.924003
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W105
Description:	Corrosive Liquids
CORb Sequence Number:	132212
Sequence Number:	2644838
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	2

WAL MART STORE 2121 (Continued) **1004794987**

Quanity Unit:	LB
Kilograms Quanity:	0.90720001
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	132212
Sequence Number:	2644839
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	223
Quanity Unit:	LB
Kilograms Quanity:	101.152801
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	132212
Sequence Number:	2644856
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	17
Quanity Unit:	LB
Kilograms Quanity:	7.71120013
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	132212
Sequence Number:	2644841
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	434
Quanity Unit:	LB
Kilograms Quanity:	196.862403
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Oxidizing Solids
CORb Sequence Number:	132212
Sequence Number:	2644857
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	70
Quanity Unit:	LB
Kilograms Quanity:	31.7520005
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	132212
Sequence Number:	2644859
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	4
Quanity Unit:	LB
Kilograms Quanity:	1.81440003
Density Number:	0
Density Quanity:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	132212
Waste Sequence Number:	2644862
Sequence Number:	641340
Received EPAID:	WAD991281767
Managed Quanity:	300
Kilogram Quanity:	136.080002
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2644863
Sequence Number:	641342
Received EPAID:	WAD991281767
Managed Quanity:	17
Kilogram Quanity:	7.71120013
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2644836
Sequence Number:	641326
Received EPAID:	WAD991281767
Managed Quanity:	465
Kilogram Quanity:	210.924003
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2644838
Sequence Number:	641329
Received EPAID:	WAD991281767
Managed Quanity:	2
Kilogram Quanity:	0.90720001
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2644839
Sequence Number:	641330
Received EPAID:	WAD991281767
Managed Quanity:	223
Kilogram Quanity:	101.152801
Recycled Percentage:	Not reported
Waste Management System Code:	H061
Waste Sequence Number:	2644856
Sequence Number:	641334
Received EPAID:	WAD991281767
Managed Quanity:	17
Kilogram Quanity:	7.71120013
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2644840
Sequence Number:	641331
Received EPAID:	WAD991281767
Managed Quanity:	2
Kilogram Quanity:	0.90720001
Recycled Percentage:	Not reported
Waste Management System Code:	H141

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 2644865
Sequence Number: 641343
Received EPAID: WAD991281767
Managed Quanity: 108
Kilogram Quanity: 48.9888008
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2644841
Sequence Number: 641332
Received EPAID: WAD991281767
Managed Quanity: 434
Kilogram Quanity: 196.862403
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2644857
Sequence Number: 641335
Received EPAID: WAD991281767
Managed Quanity: 70
Kilogram Quanity: 31.7520005
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2644859
Sequence Number: 641337
Received EPAID: WAD991281767
Managed Quanity: 4
Kilogram Quanity: 1.81440003
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 132212
Comments: A-8: W219 - Damaged product, customer returned product.
Waste Sequence Number: 2644839
Sequence Number: 1

Comments: A-7: G19 - Damaged product, customer returned product. A-8: W409 - Damaged product, customer returned product.
Waste Sequence Number: 2644840
Sequence Number: 1

Comments: A-8: W409 - Damaged product, customer returned product.
Waste Sequence Number: 2644841
Sequence Number: 1

Comments: A-7: G19 - Damaged product, customer returned product.
Waste Sequence Number: 2644856
Sequence Number: 1

Comments: A-7: G19 - Damaged product, customer returned product. A-8: W319 - Damaged product, customer returned product.
Waste Sequence Number: 2644857
Sequence Number: 1

Comments: A-8: W219 - Damaged product, customer returned product.

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 2644859
Sequence Number: 1

Comments: A-3: Additional waste code D026. A-8: W219 - Damaged product, customer returned product.
Waste Sequence Number: 2644862
Sequence Number: 1

Comments: A-3: Additional waste codes D011, D026, D027, D035, U159. A-8: W409 - Damaged product, customer returned product.
Waste Sequence Number: 2644865
Sequence Number: 1

Comments: A-7: G19 - Damaged product, customer returned product.
Waste Sequence Number: 2644868
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 132212
Waste Sequence Number: 2644862
Sequence Number: 5800365
WCDA Code: D005

Waste Sequence Number: 2644862
Sequence Number: 5800366
WCDA Code: D006

Waste Sequence Number: 2644841
Sequence Number: 5800322
WCDA Code: D001

Waste Sequence Number: 2644841
Sequence Number: 5800323
WCDA Code: D007

Waste Sequence Number: 2644841
Sequence Number: 5800324
WCDA Code: D018

Waste Sequence Number: 2644841
Sequence Number: 5800325
WCDA Code: D035

Waste Sequence Number: 2644857
Sequence Number: 5800349
WCDA Code: D001

Waste Sequence Number: 2644859
Sequence Number: 5800350
WCDA Code: D004

Waste Sequence Number: 2644859
Sequence Number: 5800351
WCDA Code: D016

Waste Sequence Number: 2644859
Sequence Number: 5800352

WAL MART STORE 2121 (Continued) **1004794987**

WCDA Code:	U279
Waste Sequence Number:	2644868
Sequence Number:	5800396
WCDA Code:	D001
Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	WSC2
Federal Waste Code Desc:	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D016, D018, D022, D024, D026, D027, D035, D039, P001, P075, U002, U034, U035, U058, U072, U080, U122, U129, U132, U150, U154, U159, U165, U182, U188, U200, U205, U248, U249, U279, U409, U411
Form Comm:	Updating site contact and waste codes.
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	retail sales
Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	(479)204-0402
Legal Effective Date:	10/18/1994
Land Organization Name:	Wal-Mart Stores, Inc.
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	(479)204-0402

WAL MART STORE 2121 (Continued) **1004794987**

Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	(479)204-0402
Operator Effective Date:	10/18/1994
Site Contact:	Chris Stewart
Site Contact Address:	P.O. Box 8041
Contact City,State,Zip:	Bentonville, AR 72712-8041
Site Contact Phone Number:	(479)204-0402
Site Contact Email:	christopher.stewart@wal-mart.com
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Oxidizing Solids
CORb Sequence Number:	127291
Sequence Number:	2494120
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	5
Quanity Unit:	LB
Kilograms Quanity:	2.2680000390096007
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0

WAL MART STORE 2121 (Continued) **1004794987**

KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W401
Description:	Toxic Solids
CORb Sequence Number:	127291
Sequence Number:	2494136
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1032
Quanity Unit:	LB
Kilograms Quanity:	468.11520805158159
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	WSC2
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	127291
Sequence Number:	2494111
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	994
Quanity Unit:	LB
Kilograms Quanity:	450.87840775510864
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	127291
Sequence Number:	2494113
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	211

WAL MART STORE 2121 (Continued) **1004794987**

Quanity Unit:	LB
Kilograms Quanity:	95.709601646205158
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	127291
Sequence Number:	2494119
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	23
Quanity Unit:	LB
Kilograms Quanity:	10.432800179444163
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	127291
Sequence Number:	2494146
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1561
Quanity Unit:	LB
Kilograms Quanity:	708.06961217879734
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	127291
Sequence Number:	2494116
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	842
Quanity Unit:	LB
Kilograms Quanity:	381.93120656921678
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	127291
Sequence Number:	2494118
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	5
Quanity Unit:	LB
Kilograms Quanity:	2.2680000390096007
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Waste Organic Peroxide
CORb Sequence Number:	127291
Sequence Number:	2494150
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1
Quanity Unit:	LB
Kilograms Quanity:	0.45360000780192017
Density Number:	0
Density Quanity:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	127291
Sequence Number:	2494123
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	73
Quanity Unit:	LB
Kilograms Quanity:	33.11280056954017
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	127291
Waste Sequence Number:	2494120
Sequence Number:	586992
Received EPAID:	WAD991281767
Managed Quanity:	5
Kilogram Quanity:	2.2680000390096007
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	2494116
Sequence Number:	586981
Received EPAID:	WAD991281767
Managed Quanity:	842
Kilogram Quanity:	381.93120656921678
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	2494111
Sequence Number:	586971
Received EPAID:	WAD991281767
Managed Quanity:	994
Kilogram Quanity:	450.87840775510864
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	2494113
Sequence Number:	586976
Received EPAID:	WAD991281767
Managed Quanity:	211
Kilogram Quanity:	95.709601646205158
Recycled Percentage:	Not reported
Waste Management System Code:	H061

Waste Sequence Number:	2494136

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number: 587009
Received EPAID: WAD991281767
Managed Quanity: 1032
Kilogram Quanity: 468.11520805158159
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2494123
Sequence Number: 586995
Received EPAID: WAD991281767
Managed Quanity: 73
Kilogram Quanity: 33.11280056954017
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2494118
Sequence Number: 586985
Received EPAID: WAD991281767
Managed Quanity: 5
Kilogram Quanity: 2.2680000390096007
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2494150
Sequence Number: 587032
Received EPAID: WAD991281767
Managed Quanity: 1
Kilogram Quanity: 0.45360000780192017
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2494119
Sequence Number: 586988
Received EPAID: WAD991281767
Managed Quanity: 23
Kilogram Quanity: 10.432800179444163
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2494146
Sequence Number: 587028
Received EPAID: WAD991281767
Managed Quanity: 1561
Kilogram Quanity: 708.06961217879734
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream Comments:
CORB Waste Sequence Number: 127291
Comments: A-7:G19 Damaged product, customer returned product.
Waste Sequence Number: 2494136
Sequence Number: 1

Comments: A-8:W409 Damaged product, customer returned product.
Waste Sequence Number: 2494116
Sequence Number: 1

WAL MART STORE 2121 (Continued) **1004794987**

Comments: A-7:G19 Damaged product, customer returned product.
Waste Sequence Number: 2494146
Sequence Number: 1

Comments: A-7:G19 Damaged product, customer returned product. A-8:W219 Damaged product, customer returned product.
Waste Sequence Number: 2494150
Sequence Number: 1

Comments: A-7:G19 Damaged product, customer returned product. A-8:W219 Damaged product, customer returned product.
Waste Sequence Number: 2494113
Sequence Number: 1

Comments: A-7:G19 Damaged product, customer returned product.
Waste Sequence Number: 2494119
Sequence Number: 1

Comments: A-7:G19 Damaged product, customer returned product. A-8:W219 Damaged product, customer returned product.
Waste Sequence Number: 2494123
Sequence Number: 1

Comments: A-7:G19 Damaged product, customer returned product. A-8:W409 Damaged product, customer returned product.
Waste Sequence Number: 2494118
Sequence Number: 1

Comments: A-7:G19 Damaged product, customer returned product. A-8:W319 Damaged product, customer returned product.
Waste Sequence Number: 2494120
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 127291
Waste Sequence Number: 2494119
Sequence Number: 5408664
WCDA Code: D001

Waste Sequence Number: 2494123
Sequence Number: 5422821
WCDA Code: D016

Waste Sequence Number: 2494146
Sequence Number: 5408955
WCDA Code: D035

Waste Sequence Number: 2494123
Sequence Number: 5422820
WCDA Code: D004

Waste Sequence Number: 2494146
Sequence Number: 5408953
WCDA Code: D001

Waste Sequence Number: 2494146
Sequence Number: 5408954

WAL MART STORE 2121 (Continued) **1004794987**

WCDA Code: D022

Waste Sequence Number: 2494146
Sequence Number: 5408956
WCDA Code: D039

Waste Sequence Number: 2494113
Sequence Number: 5408591
WCDA Code: D035

Waste Sequence Number: 2494120
Sequence Number: 5408675
WCDA Code: D001

Waste Sequence Number: 2494136
Sequence Number: 5408892
WCDA Code: D004

Waste Sequence Number: 2494136
Sequence Number: 5408897
WCDA Code: U411

Waste Stream Source Code:
CORB Waste Sequence Number: 127291
Waste Sequence Number: 2494111
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 2494116
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 2494113
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2494118
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2494119
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2494120
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2494123
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2494136
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2494146

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number:	1
WCDD Code:	G19
Waste Sequence Number:	2494150
Sequence Number:	1
WCDD Code:	G19
Name:	WAL MART STORE 2121
Address:	100 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	13975422
EPA ID:	WAR000002113
NAICS:	452910
State Waste Code Desc:	WSC2
Federal Waste Code Desc:	D001, D002, D003, D004, D005, D006, D007, D008, D009, D011, D016, D018, D022, D026, D027, D035, D039, U002, U072, U080, U154, U159, U165, U249, U279, U409, U411
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601336273
Business Type:	retail sales
Mail Name:	Wal-Mart Stores, Inc.
Mailing Address:	P.O. Box 8041
Mailing City,State,Zip:	Bentonville, AR 72712-8041
Legal Organization Name:	Wal Mart Stores Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	P.O. Box 8041
Legal Address 2:	Not reported
Legal City,State,Zip:	Bentonville, AR 72712-8041
Legal Phone Number:	(479)204-2231
Legal Effective Date:	05/03/1996
Land Organization Name:	Wal Mart Stores Inc
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	P.O. Box 8041
Land City,State,Zip:	Bentonville, AR 72712-8041
Land Phone Number:	(479)204-2231

WAL MART STORE 2121 (Continued) **1004794987**

Operator Organization Name:	Wal-Mart Stores, Inc.
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	P.O. Box 8041
Operator Address 2:	Not reported
Operator City,State,Zip:	Bentonville, AR 72712-8041
Operator Phone Number:	479-204-2231
Operator Effective Date:	05/03/1996
Site Contact:	Kevin Johnston
Site Contact Address:	100 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360) 427-6226
Site Contact Email:	Not reported
Gen Status Code:	MQG
Monthly Generation:	True
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Waste Aerosols
CORb Sequence Number:	121009
Sequence Number:	2018384
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	1421
Quanity Unit:	LB
Kilograms Quanity:	644.56561108652852
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0

WAL MART STORE 2121 (Continued) **1004794987**

KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	121009
Sequence Number:	2018360
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	20
Quanity Unit:	LB
Kilograms Quanity:	9.0720001560384027
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Flammable Liquids
CORb Sequence Number:	121009
Sequence Number:	2018357
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	785
Quanity Unit:	LB
Kilograms Quanity:	356.07600612450733
Density Number:	0
Density Quanity:	Not reported

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W110
Description:	Corrosive Liquids
CORb Sequence Number:	121009
Sequence Number:	2018355
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	553

WAL MART STORE 2121 (Continued) **1004794987**

Quanity Unit:	LB
Kilograms Quanity:	250.84080431446185
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W801
Description:	Lighters
CORb Sequence Number:	121009
Sequence Number:	2018362
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	81
Quanity Unit:	LB
Kilograms Quanity:	36.741600631955535
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W119
Description:	Oxidizing Liquids
CORb Sequence Number:	121009
Sequence Number:	2018364
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	90
Quanity Unit:	LB
Kilograms Quanity:	40.824000702172818
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W219
Description:	Toxic Liquids
CORb Sequence Number:	121009
Sequence Number:	2018379
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	56
Quanity Unit:	LB
Kilograms Quanity:	25.401600436907529
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W310
Description:	Toxic Solids
CORb Sequence Number:	121009
Sequence Number:	2018381
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	167
Quanity Unit:	LB
Kilograms Quanity:	75.751201302920663
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	2
WCDE On Site Code:	Not reported
WCDB Code:	W409
Description:	Flammable Solids
CORb Sequence Number:	121009
Sequence Number:	2018361
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	498
Quanity Unit:	LB
Kilograms Quanity:	225.89280388535624
Density Number:	0
Density Quanity:	Not reported

WAL MART STORE 2121 (Continued) **1004794987**

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W319
Description:	Oxidizing Solids
CORb Sequence Number:	121009
Sequence Number:	2018367
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	5
Quanity Unit:	LB
Kilograms Quanity:	2.2680000390096007
Density Number:	0
Density Quanity:	Not reported

Waste Stream Off Site Mgmt:

Waste CORB Sequence Number:	121009
Waste Sequence Number:	2018357
Sequence Number:	502090
Received EPAID:	WAD991281767
Managed Quanity:	785
Kilogram Quanity:	356.07600612450733
Recycled Percentage:	Not reported
Waste Management System Code:	H061

Waste Sequence Number:	2018364
Sequence Number:	502098
Received EPAID:	WAD991281767
Managed Quanity:	90
Kilogram Quanity:	40.824000702172818
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	2018355
Sequence Number:	502086
Received EPAID:	WAD991281767
Managed Quanity:	15
Kilogram Quanity:	6.804000117028802
Recycled Percentage:	Not reported
Waste Management System Code:	H111

Waste Sequence Number:	2018379
Sequence Number:	502108
Received EPAID:	WAD991281767
Managed Quanity:	56
Kilogram Quanity:	25.401600436907529
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Sequence Number:	2018360

WAL MART STORE 2121 (Continued) **1004794987**

Sequence Number:	502093
Received EPAID:	WAD991281767
Managed Quanity:	20
Kilogram Quanity:	9.0720001560384027
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2018355
Sequence Number:	502087
Received EPAID:	WAD991281767
Managed Quanity:	538
Kilogram Quanity:	244.03680419743304
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2018384
Sequence Number:	502114
Received EPAID:	WAD991281767
Managed Quanity:	1421
Kilogram Quanity:	644.56561108652852
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2018367
Sequence Number:	502101
Received EPAID:	WAD991281767
Managed Quanity:	5
Kilogram Quanity:	2.2680000390096007
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2018361
Sequence Number:	502094
Received EPAID:	WAD991281767
Managed Quanity:	498
Kilogram Quanity:	225.89280388535624
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2018381
Sequence Number:	502112
Received EPAID:	WAD991281767
Managed Quanity:	167
Kilogram Quanity:	75.751201302920663
Recycled Percentage:	Not reported
Waste Management System Code:	H141
Waste Sequence Number:	2018362
Sequence Number:	502095
Received EPAID:	WAD991281767
Managed Quanity:	81
Kilogram Quanity:	36.741600631955535
Recycled Percentage:	Not reported
Waste Management System Code:	H141

Waste Stream Comments:
CORB Waste Sequence Number: 121009

WAL MART STORE 2121 (Continued) **1004794987**

Comments: A-7. G-19, damaged product, customer returned product.
Waste Sequence Number: 2018362
Sequence Number: 1

Comments: A-7. G-19, damaged product, customer returned product. A-8, W119, damaged product, customer returned product.
Waste Sequence Number: 2018364
Sequence Number: 1

Comments: A-8, W409, damaged product, customer returned product.
Waste Sequence Number: 2018361
Sequence Number: 1

Comments: A-3: D026, D027, D039, U080, U249, U279. A-7: G-19, damaged product, customer returned product.
Waste Sequence Number: 2018381
Sequence Number: 1

Comments: A-7. G-19, damaged product, customer returned product. A-8, W319, damaged product, customer returned product.
Waste Sequence Number: 2018367
Sequence Number: 1

Comments: A-7: G-19, damaged product, customer returned product.
Waste Sequence Number: 2018384
Sequence Number: 1

Comments: A-7. G-19, damaged product, customer returned product. A-8, W219, damaged product, customer returned product.
Waste Sequence Number: 2018357
Sequence Number: 1

Comments: A-3: D026, D027, D039, U080, U279. A-7. G-19, damaged product, customer returned product. A-8, W219, damaged product, customer returned product.
Waste Sequence Number: 2018379
Sequence Number: 1

Comments: A-7. G-19, damaged product, customer returned product. A-8, W409, damaged product, customer returned product.
Waste Sequence Number: 2018360
Sequence Number: 1

Waste Stream EPA Code:
CORB Waste Sequence Number: 121009
Waste Sequence Number: 2018384
Sequence Number: 4624217
WCDA Code: D035

Waste Sequence Number: 2018361
Sequence Number: 4624194
WCDA Code: D007

Waste Sequence Number: 2018361
Sequence Number: 4624195
WCDA Code: D018

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number: 2018384
Sequence Number: 4624218
WCDA Code: D039

Waste Sequence Number: 2018361
Sequence Number: 4624193
WCDA Code: D001

Waste Sequence Number: 2018384
Sequence Number: 4624214
WCDA Code: D005

Waste Sequence Number: 2018362
Sequence Number: 4624197
WCDA Code: D001

Waste Sequence Number: 2018364
Sequence Number: 4624198
WCDA Code: D001

Waste Sequence Number: 2018364
Sequence Number: 4624199
WCDA Code: D002

Waste Sequence Number: 2018379
Sequence Number: 4624201
WCDA Code: D004

Waste Sequence Number: 2018379
Sequence Number: 4624202
WCDA Code: D006

Waste Stream Source Code:
CORB Waste Sequence Number: 121009
Waste Sequence Number: 2018361
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 2018364
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2018384
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2018355
Sequence Number: 1
WCDD Code: G32

Waste Sequence Number: 2018357
Sequence Number: 1
WCDD Code: G19

Waste Sequence Number: 2018379
Sequence Number: 1
WCDD Code: G19

WAL MART STORE 2121 (Continued) **1004794987**

Waste Sequence Number:	2018362
Sequence Number:	1
WCDD Code:	G19
Waste Sequence Number:	2018381
Sequence Number:	1
WCDD Code:	G19
Waste Sequence Number:	2018360
Sequence Number:	1
WCDD Code:	G19
Waste Sequence Number:	2018367
Sequence Number:	1
WCDD Code:	G19

Click this hyperlink while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

O67 **WA SPILLS** **S108009786**
South **100 WALLACE KNEELAND** **N/A**
> 1 **SHELTON, WA**
1.140 mi.
6018 ft. **Site 2 of 3 in cluster O**

Relative: SPILLS:
Lower

Actual: Name:	Not reported
230 ft. Address:	100 WALLACE KNEELAND
City,State,Zip:	SHELTON, WA
Facility ID:	554855
Medium:	Not reported
Material Desc:	CHEMICAL
Material Qty:	1
Material Units:	CYLINDER
Date Received:	05/02/2006
Contact Name:	UNKNOWN
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

O68
South
> 1
1.140 mi.
6018 ft.

WAL MART TIRE & LUBE EXPRESS 12121
100 E WALLACE KNEELAND BLVD
SHELTON, WA 98584

Site 3 of 3 in cluster O

FINDS **1012309012**
N/A

Relative:
Lower

Actual:
230 ft.

FINDS:

Registry ID: 110040341895

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

N69
West
> 1
1.144 mi.
6042 ft.

SUNRISE FIBERGLASS ENGINEERING
W 171 SANDERSON WAY
SHELTON, WA 98584

Site 2 of 3 in cluster N

WA ALLSITES **1000362766**
RCRA NonGen / NLR **WAD103362448**

Relative:
Higher

Actual:
288 ft.

ALLSITES:

Facility Name:	SUNRISE FIBERGLASS ENGINEERING
Facility Id:	1744198
Interaction:	9188
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAD103362448
Date Interaction:	1987-05-18 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.24648449
Longitude:	-123.145305063
Interaction:	9190
Interaction 1:	I
Interaction 2:	HWP
Ecology Program:	HAZWASTE
Program Data:	HWPPRT
Facility Alt.:	Not reported
Program ID:	WAD103362448
Date Interaction:	1992-01-01 00:00:00
Date Interaction 3:	Hazardous Waste Planner
Latitude:	47.24648449
Longitude:	-123.145305063
Interaction:	9189
Interaction 1:	I

SUNRISE FIBERGLASS ENGINEERING (Continued) **1000362766**

Interaction 2:	TRI
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Not reported
Program ID:	WAD103362448
Date Interaction:	1989-01-01 00:00:00
Date Interaction 3:	Toxics Release Inventory
Latitude:	47.24648449
Longitude:	-123.145305063

Interaction:	9187
Interaction 1:	I
Interaction 2:	TRI
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Not reported
Program ID:	WAD103362448
Date Interaction:	1987-01-01 00:00:00
Date Interaction 3:	Toxics Release Inventory
Latitude:	47.24648449
Longitude:	-123.145305063

RCRA NonGen / NLR:

Date form received by agency:	05/11/1993
Facility name:	SUNRISE FIBERGLASS ENGINEERING
Facility address:	W 171 SANDERSON WAY SHELTON, WA 98584
EPA ID:	WAD103362448
Mailing address:	PO BOX 29 MCMINNVILLE, WA 97128
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	10
Land type:	Other land type
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	SUNRISE FIBERGLASS ENGINEERING
Owner/operator address:	W 171 SANDERSON WAY SHELTON, WA 98584
Owner/operator country:	US
Owner/operator telephone:	000-000-0000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

SUNRISE FIBERGLASS ENGINEERING (Continued) **1000362766**

Owner/operator name: SUNRISE FIBERGLASS ENGINEERING
Owner/operator address: 171 W SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/02/1996
Owner/Op end date: Not reported

Owner/operator name: SUNRISE FIBERGLASS ENGINEERING
Owner/operator address: W 171 SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 05/10/1993
Site name: SUNRISE FIBERGLASS ENGINEERING
Classification: Not a generator, verified

Date form received by agency: 05/10/1993
Site name: SUNRISE FIBERGLASS ENGINEERING
Classification: Not a generator, verified

Facility Has Received Notices of Violations:
Regulation violated: SR - -210(1)
Area of violation: Generators - General
Date violation determined: 04/08/1992

SUNRISE FIBERGLASS ENGINEERING (Continued) **1000362766**

Date achieved compliance: 05/08/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 173-303-200 (1)(a)
Area of violation: Generators - General
Date violation determined: 04/08/1992
Date achieved compliance: 05/08/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - -220(1)
Area of violation: Generators - General
Date violation determined: 04/08/1992
Date achieved compliance: 05/08/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 173-303-630(5)(c)
Area of violation: Generators - General
Date violation determined: 04/08/1992
Date achieved compliance: 05/08/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - -340(1)
Area of violation: Generators - General
Date violation determined: 04/08/1992
Date achieved compliance: 05/08/1992

SUNRISE FIBERGLASS ENGINEERING (Continued) **1000362766**

Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - -220(2)
Area of violation: Generators - General
Date violation determined: 04/08/1992
Date achieved compliance: 05/08/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 173-303-200(1)(c)
Area of violation: Generators - General
Date violation determined: 04/08/1992
Date achieved compliance: 05/08/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - 173-303-200(1)(d)
Area of violation: Generators - General
Date violation determined: 04/08/1992
Date achieved compliance: 05/08/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 03/29/1989
Date achieved compliance: 07/04/1994
Violation lead agency: State

SUNRISE FIBERGLASS ENGINEERING (Continued) **1000362766**

Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 10/13/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 16000
Final penalty amount: 16000
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 09/11/1992
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/08/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/08/1992
Evaluation lead agency: State

Evaluation date: 03/29/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/04/1994
Evaluation lead agency: State

P70 **REPAIRS PLUS** **FINDS** **1016206297**
ESE **E 1022 JOHNS PRAIRIE RD** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.146 mi.
6053 ft. **Site 1 of 3 in cluster P**

Relative: Higher

Actual: 244 ft.

FINDS:

Registry ID: 110005386670

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

REPAIRS PLUS (Continued) **1016206297**

ECHO:
Envid: 1016206297
Registry ID: 110005386670
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005386670

P71 **REPAIRS PLUS** **RCRA NonGen / NLR** **1000878796**
ESE **E 1022 JOHNS PRAIRIE RD** **WA MANIFEST** **WAD988521217**
> 1 **SHELTON, WA 98584**
1.147 mi.
6058 ft. **Site 2 of 3 in cluster P**

Relative: Higher
Actual: 244 ft.

RCRA NonGen / NLR:
Date form received by agency: 03/08/2006
Facility name: REPAIRS PLUS
Facility address: E 1022 JOHNS PRAIRIE RD
SHELTON, WA 98584
EPA ID: WAD988521217
Mailing address: 1022 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Contact: DALE FYE
Contact address: 1022 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Contact country: US
Contact telephone: 360-426-0403
Contact email: TRUSTYTRACTOR@AOL.COM
EPA Region: 10
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: FYE, DALE
Owner/operator address: 1022 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-0403
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BOURGAULT, JOE
Owner/operator address: 100 E BOURGAULT RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-2442
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

REPAIRS PLUS (Continued) **1000878796**

Owner/operator name: REPAIRS PLUS DBA TRUSTY TRACTOR
Owner/operator address: 1022 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-0403
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/05/1993
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/07/2006
Site name: REPAIRS PLUS
Classification: Not a generator, verified

Date form received by agency: 03/07/2006
Site name: REPAIRS PLUS
Classification: Not a generator, verified

Date form received by agency: 03/07/2006
Site name: REPAIRS PLUS
Classification: Not a generator, verified

Date form received by agency: 12/31/2005
Site name: REPAIRS PLUS
Classification: Not a generator, verified

Date form received by agency: 12/31/2004
Site name: REPAIRS PLUS
Classification: Not a generator, verified

Date form received by agency: 03/16/2004
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/26/2003

REPAIRS PLUS (Continued) **1000878796**

Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/20/2002
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/28/2000
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/08/2000
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/12/1999
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/11/1998
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/22/1997
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/22/1996
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/1994
Site name: REPAIRS PLUS
Classification: Conditionally Exempt Small Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 03/30/1995
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/07/1993
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

WA MANIFEST:
Name: REPAIRS PLUS
Address: E 1022 JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility Address 2: Not reported
Facility ID: 89922321
EPA ID: WAD988521217

REPAIRS PLUS (Continued) **1000878796**

NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	No
Mailing Address 2:	Not reported
Treatment by Generator:	No
Mixed Radioactive Waste:	No
Importer of Hazardous Waste:	No
Immediate Recycler:	No
Treatment/Storage/Disposal/Recycling Facility:	No
Generator of Dangerous Fuel Waste:	No
Generator Marketing to Burner:	No
Other Marketers (i.e., blender, distributor, etc.):	No
Utility Boiler Burner:	No
Industry Boiler Burner:	No
Industrial Furnace:	No
Smelter Defferal:	No
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600643287
Business Type:	Auto/Tractor Repair
Mail Name:	Repairs Plus DBA Trusty Tractor
Mailing Address:	1022 E JOHNS PRAIRIE RD
Mailing City,State,Zip:	SHELTON, WA 98584-1271
Legal Organization Name:	Repairs Plus DBA Trusty Tractor
Legal Organization Type:	Private
Legal Contact:	Dale Fye
Legal Address:	1022 E JOHNS PRAIRIE RD
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584-1271
Legal Phone Number:	(360)426-0403
Legal Effective Date:	04/05/1993
Land Organization Name:	Not reported
Land Organization Type:	Private
Land Contact:	Joe Bourgault
Land Address:	100 E BOURGAULT RD
Land City,State,Zip:	SHELTON, WA 98584-7409
Land Phone Number:	(360)426-2442
Operator Organization Name:	Not reported
Operator Organization Type:	Private
Operator:	Dale Fye
Operator Address:	1022 E JOHNS PRAIRIE RD
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1271
Operator Phone Number:	(360) 426-0403
Operator Effective Date:	05/30/1996
Site Contact:	Dale Fye
Site Contact Address:	1022 E JOHNS PRAIRIE RD
Contact City,State,Zip:	SHELTON, WA 98584-1271
Site Contact Phone Number:	(360)426-0403
Site Contact Email:	Not reported
Gen Status Code:	XQG
Monthly Generation:	No
Batch Generation:	No

REPAIRS PLUS (Continued) **1000878796**

One Time Generation:	No
Transport Own Waste:	No
Tranports Other Waste:	No
Recycler Onsite:	No
Transfer Facility:	No
Other Exemption:	Not reported
UW Battery Gen:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Fuel Marketer Directs Shipments:	No
Used Oil Fuel Marketer Meets Specs:	No
Site Contact Address 2:	Not reported

P72 **REPAIRS PLUS** **WA ALLSITES** **S109556532**
ESE **1022 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.153 mi.
6090 ft. **Site 3 of 3 in cluster P**

Relative: **Higher**
Actual: **244 ft.**

ALLSITES:

Facility Name:	REPAIRS PLUS
Facility Id:	89922321
Interaction:	71104
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAD988521217
Date Interaction:	1993-05-19 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.248414482999998
Longitude:	-123.080015074

N73 **OLYMPIC TOOL ENGINEERING INC** **WA ALLSITES** **1000660168**
West **W 21 SANDERSON WAY** **RCRA NonGen / NLR** **WAD988498499**
> 1 **SHELTON, WA 98584**
1.156 mi.
6103 ft. **Site 3 of 3 in cluster N**

Relative: **Higher**
Actual: **287 ft.**

ALLSITES:

Facility Name:	OLYMPIC TOOL ENGINEERING INC
Facility Id:	35651653
Interaction:	40090
Interaction 1:	I
Interaction 2:	HWP
Ecology Program:	HAZWASTE
Program Data:	HWPPRT
Facility Alt.:	Not reported
Program ID:	WAD988498499
Date Interaction:	2000-01-01 00:00:00

OLYMPIC TOOL ENGINEERING INC (Continued) **1000660168**

Date Interaction 3: Hazardous Waste Planner
Latitude: 47.246204489999997
Longitude: -123.145495064

Interaction: 40089
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD988498499
Date Interaction: 1991-12-13 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.246204489999997
Longitude: -123.145495064

RCRA NonGen / NLR:
Date form received by agency: 12/31/2004
Facility name: OLYMPIC TOOL ENGINEERING INC
Facility address: W 21 SANDERSON WAY
SHELTON, WA 98584-1279
EPA ID: WAD988498499
Mailing address: 21 W SANDERSON WAY
SHELTON, WA 98584-1279
Contact: GARY ORUD
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: 360-426-7878
Contact email: gorud@olympictool.com
EPA Region: 10
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: OLYMPIC TOOL & ENGINEERING, INC.
Owner/operator address: 21 W SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 09/16/1996
Owner/Op end date: Not reported

Owner/operator name: OLYMPIC TOOL ENGINEERING INC
Owner/operator address: W 21 SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 000-000-0000

OLYMPIC TOOL ENGINEERING INC (Continued) **1000660168**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OLYMPIC TOOL ENGINEERING INC
Owner/operator address: W 21 SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 000-000-0000
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PORT OF SHELTON
Owner/operator address: 450 W BUSINESS PARK RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OLYMPIC TOOL ENGINEERING INC
Owner/operator address: 21 W SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-7878
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: OLYMPIC TOOL ENGINEERING INC
Owner/operator address: 21 W SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner

OLYMPIC TOOL ENGINEERING INC (Continued) **1000660168**

Owner/Op start date: 09/16/1996
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/18/2004
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Not a generator, verified

Date form received by agency: 03/17/2004
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Not a generator, verified

Date form received by agency: 03/17/2004
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/25/2003
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 05/31/2002
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 05/11/2001
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Small Quantity Generator

Date form received by agency: 02/29/2000
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Small Quantity Generator

Date form received by agency: 02/18/1999
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Small Quantity Generator

Date form received by agency: 02/13/1998
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Not a generator, verified

OLYMPIC TOOL ENGINEERING INC (Continued) **1000660168**

Date form received by agency: 02/13/1998
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Small Quantity Generator

Date form received by agency: 02/12/1998
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 06/16/1997
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/29/1996
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/1994
Site name: OLYMPIC TOOL ENGINEERING INC
Classification: Small Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: SR - -071(3)(n)
Area of violation: Generators - General
Date violation determined: 10/10/2002
Date achieved compliance: 12/10/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/10/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - -630(7)
Area of violation: Generators - General
Date violation determined: 10/10/2002
Date achieved compliance: 10/31/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/10/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - -630(5)
Area of violation: Generators - General
Date violation determined: 10/10/2002
Date achieved compliance: 10/31/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/10/2002
Enf. disposition status: Not reported

OLYMPIC TOOL ENGINEERING INC (Continued) **1000660168**

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - -200(1)(c)
Area of violation: Generators - General
Date violation determined: 10/10/2002
Date achieved compliance: 10/31/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/10/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - -201(2)(A)
Area of violation: Generators - General
Date violation determined: 02/17/2000
Date achieved compliance: 02/17/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - WAC 173-303-201(2)(a)
Area of violation: Generators - General
Date violation determined: 02/17/2000
Date achieved compliance: 04/20/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: PC - -200(1)(d)
Area of violation: Generators - General
Date violation determined: 02/17/2000
Date achieved compliance: 02/17/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

OLYMPIC TOOL ENGINEERING INC (Continued) **1000660168**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 12/10/2002
Evaluation lead agency: State

Evaluation date: 10/10/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/31/2002
Evaluation lead agency: State

Evaluation date: 02/17/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/17/2000
Evaluation lead agency: State

Evaluation date: 02/17/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/20/2000
Evaluation lead agency: State

Evaluation date: 07/22/1997
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Q74 **DAYTON AIRPORT RD WATER EXPANSION** **WA ALLSITES** **S112088306**
West **DAYTON AIRPORT SHELTON SPRINGS US 101** **N/A**
> 1 **SHELTON, WA 98584**
1.166 mi.
6155 ft. **Site 1 of 4 in cluster Q**

Relative:
Higher

Actual:
302 ft.

ALLSITES:
Facility Name: DAYTON AIRPORT RD WATER EXPANSION
Facility Id: 19491

Interaction: 102404
Interaction 1: I
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Dayton Airport Rd Water Expansion
Program ID: WAR126187
Date Interaction: 2012-07-31 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.251894520999997
Longitude: -123.145583911

75
South
> 1
1.173 mi.
6195 ft.

GRADENS SHELTON CHEVRON
701 E WALLACE KNEELAND BLVD
SHELTON, WA 98584

WA ALLSITES
FINDS

1007072006
N/A

Relative:
Lower

Actual:
232 ft.

ALLSITES:

Facility Name:	GRADENS SHELTON CHEVRON
Facility Id:	36168529
Interaction:	40415
Interaction 1:	I
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Not reported
Program ID:	CRK000042470
Date Interaction:	1995-01-01 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.219716484000003
Longitude:	-123.079704079

FINDS:

Registry ID: 110015486277

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Q76
WNW
> 1
1.178 mi.
6218 ft.

HWY 102
SHELTON, WA

Site 2 of 4 in cluster Q

WA SPILLS

S121367252
N/A

Relative:
Higher

Actual:
303 ft.

SPILLS:

Name:	Not reported
Address:	HWY 102
City,State,Zip:	SHELTON, WA
Facility ID:	96870
Medium:	Public Road Right-of-Way
Material Desc:	Gas Flammable
Material Qty:	0
Material Units:	Not reported
Date Received:	Not reported
Contact Name:	Not reported
Incident Date:	11/08/2017
Incident Category Type:	Non Oil
Incident Category:	Other Non-Oil

(Continued) **S121367252**

Latitude:	47.2521
Longitude:	-123.1458
Source Type:	Public Lands
Source:	Drum or container
Vessel Facility Name2:	Not reported
Recovered Quantity:	0
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Unknown

Q77 **DAYTON AIRPORT RD WATER EXPANSION** **FINDS** **1015954380**
West **DAYTON AIRPORT, SHELTON SPRINGS, US 101** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.184 mi.
6253 ft. **Site 3 of 4 in cluster Q**

Relative: Higher

Actual: 303 ft.

FINDS:

Registry ID: 110046454047

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1015954380
Registry ID:	110046454047
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110046454047

Q78
West
> 1
1.185 mi.
6259 ft.

OFF HIGH 101
SHELTON, WA

Site 4 of 4 in cluster Q

WA SPILLS **S118949177**
N/A

Relative:
Higher

Actual:
303 ft.

SPILLS:

Name:	Not reported
Address:	OFF HIGH 101
City,State,Zip:	SHELTON, WA
Facility ID:	90713
Medium:	Roadway - Paved
Material Desc:	DIESEL/MARINE GAS OIL
Material Qty:	10
Material Units:	Not reported
Date Received:	Not reported
Contact Name:	Not reported
Incident Date:	09/26/2016
Incident Category Type:	Oil Spill
Incident Category:	Oil Spill
Latitude:	47.25200
Longitude:	123.14600
Source Type:	Vehicle
Source:	Commercial Truck
Vessel Facility Name2:	Not reported
Recovered Quantity:	10
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Lakeside Industris

R79
West
> 1
1.190 mi.
6282 ft.

SHELTON BULK PLANT
150 W SANDERSON WAY
SHELTON, WA 98584

Site 1 of 9 in cluster R

WA Financial Assurance **S121603564**
N/A

Relative:
Higher

Actual:
285 ft.

WA Financial Assurance 1:

Name:	SHELTON BULK PLANT
Address:	150 W SANDERSON WAY
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	8372
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	03/31/2015
Expiration Date:	04/01/2016
Address 2:	Not reported
Policy Number:	WA641507-5
Effective Date:	04/01/2015
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.2461
Longitude:	-123.14552

Name:	SHELTON BULK PLANT
Address:	150 W SANDERSON WAY
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	8372
Financial Resp Type:	COLONY INSURANCE COMPANY

SHELTON BULK PLANT (Continued) **S121603564**

Inception Date:	04/01/2016
Expiration Date:	04/01/2017
Address 2:	Not reported
Policy Number:	WA641507-6
Effective Date:	04/01/2016
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.2461
Longitude:	-123.14552

Name:	SHELTON BULK PLANT
Address:	150 W SANDERSON WAY
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	8372
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	04/01/2017
Expiration Date:	04/01/2018
Address 2:	Not reported
Policy Number:	WA641507-7
Effective Date:	04/01/2017
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.2461
Longitude:	-123.14552

Name:	SHELTON BULK PLANT
Address:	150 W SANDERSON WAY
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	8372
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	03/29/2018
Expiration Date:	04/01/2019
Address 2:	Not reported
Policy Number:	WA641507-8
Effective Date:	03/29/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.2461
Longitude:	-123.14552

R80 **TOSCO CORPORATION** **WA RGA LUST** **S115445570**
West **150 W SANDERSON** **N/A**
> 1 **SHELTON, WA**
1.190 mi.
6282 ft. **Site 2 of 9 in cluster R**

Relative: RGA LUST:
Higher

1999	TOSCO CORPORATION	150 W SANDERSON	

Actual:
285 ft.

R81
West
> 1
1.190 mi.
6282 ft.

TOSCO #0731
150 W. SANDERSON
SHELTON, WA 98584

Site 3 of 9 in cluster R

WA ICR **U003402771**
N/A

Relative:
Higher

Actual:
285 ft.

ICR:

Date Ecology Received Report:	03/04/98
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Waste Management:	Tank
Region:	South Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	98-03
County Code:	23
Contact:	Not reported
Report Title:	Not reported

R82
West
> 1
1.190 mi.
6282 ft.

DON SMALL & SONS OIL DISTRIBUTION CO SHELTON
150 W SANDERSON WAY
SHELTON, WA 98584

Site 4 of 9 in cluster R

WA UST FINDS **1007066573**
N/A

Relative:
Higher

Actual:
285 ft.

UST:

Facility ID:	69261716
Site Id:	8372
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.246099999999998
Decimal Longitude:	-123.14552
Tank Name:	H691
Tag Number:	A8934
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1982
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	12/21/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Coated Steel
Pipe Construction:	Above Ground Piping
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Coated Only
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

DON SMALL & SONS OIL DISTRIBUTION CO SHELTON (Continued) **1007066573**

Tank Name:	H692
Tag Number:	A8934
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1982
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	12/21/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Coated Steel
Pipe Construction:	Above Ground Piping
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Coated Only
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	H693
Tag Number:	A8934
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1982
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	12/21/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	H694

DON SMALL & SONS OIL DISTRIBUTION CO SHELTON (Continued) **1007066573**

Tag Number:	A8934
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1982
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	12/21/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	H695
Tag Number:	A8934
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1982
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	12/21/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

FINDS:

Registry ID: 110015431601

DON SMALL & SONS OIL DISTRIBUTION CO SHELTON (Continued) **1007066573**

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

R83 **DON SMALL & SONS OIL DIST CO SHELTON** **WA LUST** **S104971914**
West **150 W SANDERSON WY** **WA VCP** **N/A**
> 1 **SHELTON, WA 98584** **WA ALLSITES**
1.190 mi. **WA CSCSL NFA**
6282 ft. **Site 5 of 9 in cluster R**

Relative: **Higher**

Actual: **285 ft.**

LUST:

Name:	DON SMALL & SONS OIL DIST CO SHELTON
Address:	150 W SANDERSON WY
City,State,Zip:	SHELTON, WA 98584
Facility ID:	69261716
Lust Status Type:	LUST - NFA
Cleanup Site ID:	6523
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	SHELTON BULK PLANT,TOSCO BULK PLANT 0731,TOSCO CORPORATION
Response Section:	Southwest
Release Date:	03/04/1998
Lust Date:	06/01/2000
Region:	Southwest
Lust ID:	4815
UST ID:	8372
Contaminant Name:	Petroleum-Other
Ground Water:	Confirmed Above Cleanup Levels
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Levels
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.2461 / -123.14552

DON SMALL & SONS OIL DIST CO SHELTON (Continued) **S104971914**

Name:	DON SMALL & SONS OIL DIST CO SHELTON
Address:	150 W SANDERSON WY
City,State,Zip:	SHELTON, WA 98584
Facility ID:	69261716
Lust Status Type:	LUST - NFA
Cleanup Site ID:	6523
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	SHELTON BULK PLANT,TOSCO BULK PLANT 0731,TOSCO CORPORATION
Response Section:	Southwest
Release Date:	03/04/1998
Lust Date:	06/01/2000
Region:	Southwest
Lust ID:	4815
UST ID:	8372
Contaminant Name:	Petroleum Products-Unspecified
Ground Water:	Not reported
Surface Water:	Remediated
Soil:	Not reported
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.2461 / -123.14552

VCP:

edr_fstat:	WA
edr_fzip:	98584
edr_fcnty:	MASON
edr_zip:	Not reported
Facility ID:	69261716
VCP Status:	Not reported
VCP:	Yes
Ecology Status:	Not reported
NFA Type:	Not reported
Date NFA:	6/5/2000
Rank:	Not reported
Cleanup Siteid:	6523

ALLSITES:

Facility Name:	DON SMALL & SONS OIL DIST CO SHELTON
Facility Id:	69261716

Interaction:	59331
Interaction 1:	A
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Not reported
Program ID:	CRK000015990
Date Interaction:	1988-01-01 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.246094489999997
Longitude:	-123.14550506400001

Interaction: 59332

DON SMALL & SONS OIL DIST CO SHELTON (Continued) **S104971914**

Interaction 1:	I
Interaction 2:	LUST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Not reported
Program ID:	8372
Date Interaction:	1998-03-04 00:00:00
Date Interaction 3:	LUST Facility
Latitude:	47.246094489999997
Longitude:	-123.14550506400001

Interaction:	59330
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	SHELTON BULK PLANT
Program ID:	8372
Date Interaction:	1982-05-06 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.246094489999997
Longitude:	-123.14550506400001

Interaction:	59333
Interaction 1:	I
Interaction 2:	VOLCLNST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	DON SMALL & SONS OIL DIST CO SHELTON
Program ID:	Not reported
Date Interaction:	1999-06-11 00:00:00
Date Interaction 3:	Voluntary Cleanup Sites
Latitude:	47.246094489999997
Longitude:	-123.14550506400001

CSCSL NFA:

Name:	DON SMALL & SONS OIL DIST CO SHELTON
Address:	150 W SANDERSON WY
City,State,Zip:	SHELTON, WA 98584
Facility/Site Id:	69261716
CS Id:	6523
NFA Date:	06/05/2000
Alternate Site Names:	SHELTON BULK PLANT,TOSCO BULK PLANT 0731,TOSCO CORPORATION
NFA Reason:	NFA-Voluntary Cleanup Program Review
Site Status:	NFA
Region:	Southwest
Contaminant Name:	Petroleum Products-Unspecified
Ground Water:	Not reported
Surface Water:	Remediated
Soil:	Not reported
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Latitude:	47.2461

DON SMALL & SONS OIL DIST CO SHELTON (Continued) **S104971914**

Longitude: -123.14552

Name: DON SMALL & SONS OIL DIST CO SHELTON
Address: 150 W SANDERSON WY
City,State,Zip: SHELTON, WA 98584
Facility/Site Id: 69261716
CS Id: 6523
NFA Date: 06/05/2000
Alternate Site Names: SHELTON BULK PLANT,TOSCO BULK PLANT 0731,TOSCO CORPORATION
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Southwest
Contaminant Name: Petroleum-Other
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.2461
Longitude: -123.14552

R84 **SANDERSON FIELD/INDUST PARK** **WA RGA LUST** **S115442486**
West **150 W SANDERSON** **N/A**
> 1 **SHELTON, WA**
1.190 mi.
6282 ft. **Site 6 of 9 in cluster R**

Relative: RGA LUST:
Higher

1998	SANDERSON FIELD/INDUST PARK	150 W SANDERSON

Actual:
285 ft.

R85 **SUNRISE FIBERGLASS ENGINEERING INC** **FTTS** **1007564557**
West **W 171 SANDERSON WAY** **HIST FTTS** **N/A**
> 1 **SHELTON, WA 98504**
1.213 mi.
6404 ft. **Site 7 of 9 in cluster R**

Relative: FTTS INSP:
Higher
Inspection Number: 20001027009 3
Actual: Region: 08
283 ft. Inspection Date: 10/27/00
Inspector: GOULD
Violation occurred: Yes
Investigation Type: AHERA, Enforcement, SEE Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

HIST FTTS INSP:
Inspection Number: 20001027009 3
Region: 08
Inspection Date: Not reported
Inspector: GOULD

SUNRISE FIBERGLASS ENGINEERING INC (Continued) **1007564557**

Violation occurred: Yes
Investigation Type: AHERA, Enforcement, SEE Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

R86 **SUNRISE FIBERGLASS ENG INC** **FINDS** **1018319770**
West **171 W SANDERSON WAY** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.215 mi.
6417 ft. **Site 8 of 9 in cluster R**

Relative: Higher

FINDS:

Actual: 282 ft.

Registry ID: 110002150813

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

SUNRISE FIBERGLASS ENG INC (Continued) **1018319770**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1018319770
Registry ID:	110002150813
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002150813

R87 **SUNRISE FIBERGLASS ENGINEERING INC** **ICIS** **1018288859**
West **171 W SANDERSON WAY** **N/A**
> 1 **SHELTON, WA 98584**
1.215 mi.
6417 ft. **Site 9 of 9 in cluster R**

Relative:
Higher

Actual:
282 ft.

ICIS:

Enforcement Action ID:	10-1993-0225
FRS ID:	110002150813
Action Name:	SUNRISE FIBERGLASS ENGINEERING INC.
Facility Name:	SUNRISE FIBERGLASS ENGINEERING INC
Facility Address:	171 W SANDERSON WAY SHELTON, WA 98584
Enforcement Action Type:	Collection Action
Facility County:	MASON
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Judicial
EA Type Code:	COL
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	47.244779
Longitude in Decimal Degrees:	-123.150538
Permit Type Desc:	Not reported
Program System Acronym:	45663
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

Enforcement Action ID:	10-1991-0168
FRS ID:	110002150813
Action Name:	SUNRISE FIBERGLASS ENGINEERING
Facility Name:	SUNRISE FIBERGLASS ENGINEERING INC
Facility Address:	171 W SANDERSON WAY SHELTON, WA 98584
Enforcement Action Type:	EPCRA 325 Action For Penalty
Facility County:	MASON
Program System Acronym:	ICIS
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	325
Facility SIC Code:	Not reported
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	47.244779
Longitude in Decimal Degrees:	-123.150538
Permit Type Desc:	Not reported
Program System Acronym:	45663
Facility NAICS Code:	Not reported
Tribal Land Code:	Not reported

SUNRISE FIBERGLASS ENGINEERING INC (Continued) **1018288859**

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.

SUNRISE FIBERGLASS ENGINEERING INC (Continued) **1018288859**

Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: SUNRISE FIBERGLASS ENG. INC.
Address: W. 171 SANDERSON WAY
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

S88 **WA SPILLS** **S109883440**
ESE **HIAWATHA BOULEVARD AND ADONAI COURT** **N/A**
> 1 **SHELTON, WA**
1.231 mi.
6500 ft. **Site 1 of 2 in cluster S**

Relative: SPILLS:
Higher
Name: Not reported
Actual: Address: HIAWATHA BOULEVARD AND ADONAI COURT
244 ft. City,State,Zip: SHELTON, WA
Facility ID: 526368
Medium: Not reported
Material Desc: PETROLEUM - WASTE/USED OIL
Material Qty: 30
Material Units: GALLON
Date Received: 05/11/2002
Contact Name: Not reported
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

T89 **AM/PM GAS STATION** **WA UST** **U003354145**
SSW **106 E WALLACE KNEELAND BLVD** **WA MANIFEST** **N/A**
> 1 **SHELTON, WA 98584**
1.235 mi.
6520 ft. **Site 1 of 10 in cluster T**

Relative: **Lower**

Actual: **228 ft.**

UST:

Facility ID:	64487875
Site Id:	341849
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.2317109105866
Decimal Longitude:	-123.127225744908
Tank Name:	1 SUP
Tag Number:	A0246
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/17/1995
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	04/17/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2 UNL #1
Tag Number:	A0246
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/17/1995
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	04/17/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring

AM/PM GAS STATION (Continued) **U003354145**

Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	3 UNL #2
Tag Number:	A0246
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/17/1995
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	04/17/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	4REG/MID
Tag Number:	A0246
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/17/1995
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	07/31/2019
Tank Upgrade Date:	04/17/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Not reported

AM/PM GAS STATION (Continued) **U003354145**

Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

WA MANIFEST:

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699

AM/PM GAS STATION (Continued) **U003354145**

Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported

AM/PM GAS STATION (Continued) **U003354145**

Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875

AM/PM GAS STATION (Continued) **U003354145**

EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	none generated
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False

AM/PM GAS STATION (Continued) **U003354145**

Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007

AM/PM GAS STATION (Continued) **U003354145**

Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False

AM/PM GAS STATION (Continued) **U003354145**

Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

AM/PM GAS STATION (Continued) **U003354145**

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2013
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd

AM/PM GAS STATION (Continued) **U003354145**

Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	gas station and we use emerald recycling company to recycle our waste.
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported

AM/PM GAS STATION (Continued) **U003354145**

Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False

AM/PM GAS STATION (Continued) **U003354145**

Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False

AM/PM GAS STATION (Continued) **U003354145**

Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd

AM/PM GAS STATION (Continued) **U003354145**

Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	44711
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2008
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store

AM/PM GAS STATION (Continued) **U003354145**

Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney
Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Click this hyperlink while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

T90 **ARCO 82609** **WA RGA HWS** **S115340354**
SSW **106 E WALLACE KNEELAND BLVD** **N/A**
> 1 **SHELTON, WA**
1.235 mi.
6520 ft. **Site 2 of 10 in cluster T**

Relative: RGA HWS:
Lower

2012	ARCO 82609	106 E WALLACE KNEELAND BLVD
2011	ARCO 82609	106 E WALLACE KNEELAND BLVD
2010	ARCO 82609	106 E WALLACE KNEELAND BLVD
2009	ARCO 82609	106 E WALLACE KNEELAND BLVD
2008	ARCO 82609	106 E WALLACE KNEELAND BLVD
2007	ARCO 82609	106 E WALLACE KNEELAND BLVD

Actual:
228 ft.

T91 **ARCO AM/PM MINI MARKET** **WA RGA LUST** **S115429672**
SSW **106 E WALLACE KNEELAND BLVD** **N/A**
> 1 **SHELTON, WA**
1.235 mi.
6520 ft. **Site 3 of 10 in cluster T**

Relative: RGA LUST:
Lower

2006	ARCO AM/PM MINI MARKET	106 E WALLACE KNEELAND BLVD

Actual:
228 ft.

T92 **PRESTIGE STATIONS INC** **EDR Hist Auto** **1021535398**
SSW **106 E WALLACE KNEELAND BL** **N/A**
> 1 **SHELTON, WA 98584**
1.235 mi.
6520 ft. **Site 4 of 10 in cluster T**

Relative: EDR Hist Auto
Lower

Actual:
228 ft.

Year:	Name:	Type:
1997	PRESTIGE STATIONS INC	Gasoline Service Stations
1998	PRESTIGE STATIONS INC	Gasoline Service Stations
1999	PRESTIGE STATIONS INC	Gasoline Service Stations
2000	PRESTIGE STATIONS INC	Gasoline Service Stations
2001	PRESTIGE STATIONS INC	Gasoline Service Stations
2002	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2003	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2004	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2005	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2006	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2007	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2008	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2009	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2010	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2010	ARCO AM PM 5958	Gasoline Service Stations, NEC
2011	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2011	ARCO AM PM 5958	Gasoline Service Stations, NEC
2011	BP NORTH AMERICA	Gasoline Service Stations, NEC
2012	ARCO AM PM 5958	Gasoline Service Stations, NEC
2012	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2013	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC
2014	PRESTIGE STATIONS INC	Gasoline Service Stations, NEC

T93 **AM/PM GAS STATION** **WA Financial Assurance** **S121602823**
SSW **106 E WALLACE KNEELAND BLVD** **N/A**
> 1 **SHELTON, WA 98584**
1.235 mi.
6520 ft. **Site 5 of 10 in cluster T**

Relative: **Lower**

Actual: **228 ft.**

WA Financial Assurance 1:

Name:	AM/PM GAS STATION
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	341849
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	11/16/2014
Expiration Date:	11/16/2015
Address 2:	Not reported
Policy Number:	WA640390-8
Effective Date:	11/16/2014
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.231710911
Longitude:	-123.12722574

Name:	AM/PM GAS STATION
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	341849
Financial Resp Type:	CRUM & FORSTER SPECIALTY INS CO
Inception Date:	11/16/2015
Expiration Date:	11/16/2016
Address 2:	Not reported
Policy Number:	STP-109783
Effective Date:	11/16/2015
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.231710911
Longitude:	-123.12722574

Name:	AM/PM GAS STATION
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	341849
Financial Resp Type:	CRUM & FORSTER SPECIALTY INS CO
Inception Date:	11/14/2017
Expiration Date:	11/16/2019
Address 2:	Not reported
Policy Number:	STP-119850
Effective Date:	11/14/2017
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.231710911
Longitude:	-123.12722574

T94
SSW
> 1
1.235 mi.
6520 ft.

ARCO AMPM - SHELTON
106 E WALLACE KNEELAND
SHELTON, WA 98584

Site 6 of 10 in cluster T

Relative: Lower

Actual: 228 ft.

WA LUST **S109394709**
WA VCP **N/A**
WA ALLSITES
WA CSCSL NFA
WA AIRS
WA MANIFEST

LUST:

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	64487875
Lust Status Type:	LUST - NFA
Cleanup Site ID:	6444
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	AM/PM GAS STATION,ARCO 05958,ARCO 5958,ARCO 5958 PSI 5492,ARCO FAC 5958 PSI 5492
Response Section:	Southwest
Release Date:	09/07/2005
Lust Date:	01/08/2015
Region:	Southwest
Lust ID:	6111
UST ID:	341849
Contaminant Name:	Petroleum Products-Unspecified
Ground Water:	Below Cleanup Levels
Surface Water:	Not reported
Soil:	Not reported
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.2317109 / -123.12722

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	64487875
Lust Status Type:	LUST - NFA
Cleanup Site ID:	6444
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	AM/PM GAS STATION,ARCO 05958,ARCO 5958,ARCO 5958 PSI 5492,ARCO FAC 5958 PSI 5492
Response Section:	Southwest
Release Date:	09/07/2005
Lust Date:	01/08/2015
Region:	Southwest
Lust ID:	6111
UST ID:	341849
Contaminant Name:	Petroleum-Gasoline
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Remediated-Below
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.2317109 / -123.12722

VCP:

edr_fstat:	WA
edr_fzip:	98584

ARCO AMPM - SHELTON (Continued) **S109394709**

edr_fcnty: MASON
edr_zip: Not reported
Facility ID: 64487875
VCP Status: Not reported
VCP: Yes
Ecology Status: Not reported
NFA Type: Not reported
Date NFA: 1/8/2015
Rank: Not reported
Cleanup Siteid: 6444

ALLSITES:
Facility Name: ARCO 82609
Facility Id: 64487875

Interaction: 56565
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAR000007260
Date Interaction: 1996-01-22 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.231705951999999
Longitude: -123.127211397

Interaction: 108267
Interaction 1: I
Interaction 2: LUST
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Arco 82609
Program ID: Not reported
Date Interaction: 2005-09-07 00:00:00
Date Interaction 3: LUST Facility
Latitude: 47.231705951999999
Longitude: -123.127211397

Interaction: 56567
Interaction 1: A
Interaction 2: HWOTHER
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Arco 82609
Program ID: WAR000007260
Date Interaction: 2008-12-31 00:00:00
Date Interaction 3: Haz Waste Management Acti
Latitude: 47.231705951999999
Longitude: -123.127211397

Interaction: 80412
Interaction 1: A
Interaction 2: AQLA

ARCO AMPM - SHELTON (Continued) **S109394709**

Ecology Program:	AIRQUAL
Program Data:	AIRSIS
Facility Alt.:	Arco 82609
Program ID:	F_045_2392
Date Interaction:	2007-01-01 00:00:00
Date Interaction 3:	Air Qual Local Authority
Latitude:	47.231705951999999
Longitude:	-123.127211397

Interaction:	56564
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	AM/PM GAS STATION
Program ID:	341849
Date Interaction:	1995-07-17 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.231705951999999
Longitude:	-123.127211397

Interaction:	93523
Interaction 1:	I
Interaction 2:	VOLCLNST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Arco 82609
Program ID:	SW1124
Date Interaction:	2010-07-27 00:00:00
Date Interaction 3:	Voluntary Cleanup Sites
Latitude:	47.231705951999999
Longitude:	-123.127211397

Interaction:	56566
Interaction 1:	A
Interaction 2:	SCS
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Arco 82609
Program ID:	Not reported
Date Interaction:	2006-03-31 00:00:00
Date Interaction 3:	State Cleanup Site
Latitude:	47.231705951999999
Longitude:	-123.127211397

Interaction:	56563
Interaction 1:	I
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Not reported
Program ID:	WAR000007260
Date Interaction:	1995-01-01 00:00:00

ARCO AMPM - SHELTON (Continued) **S109394709**

Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.231705951999999
Longitude: -123.127211397

CSCSL NFA:
Name: ARCO 82609
Address: 106 E WALLACE KNEELAND BLVD
City,State,Zip: SHELTON, WA 98584
Facility/Site Id: 64487875
CS Id: 6444
NFA Date: 01/08/2015
Alternate Site Names: AM/PM GAS STATION,ARCO 05958,ARCO 5958,ARCO 5958 PSI 5492,ARCO FAC 5958 PSI 5492
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Southwest
Contaminant Name: Petroleum Products-Unspecified
Ground Water: Below Cleanup Levels
Surface Water: Not reported
Soil: Not reported
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.231710911
Longitude: -123.12722574

Name: ARCO 82609
Address: 106 E WALLACE KNEELAND BLVD
City,State,Zip: SHELTON, WA 98584
Facility/Site Id: 64487875
CS Id: 6444
NFA Date: 01/08/2015
Alternate Site Names: AM/PM GAS STATION,ARCO 05958,ARCO 5958,ARCO 5958 PSI 5492,ARCO FAC 5958 PSI 5492
NFA Reason: NFA-Voluntary Cleanup Program Review
Site Status: NFA
Region: Southwest
Contaminant Name: Petroleum-Gasoline
Ground Water: Not reported
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Latitude: 47.231710911
Longitude: -123.12722574

AIRS (EMI):
Year Of Info: 2007
Facility ID: Not reported
Facility Type: Not reported
Facility Category Short Name: Not reported
Facility Site Status Description: Not reported
Ecolgy Fac ID: Not reported
Plant Name: Not reported

ARCO AMPM - SHELTON (Continued) **S109394709**

Plant SIC Code:	Not reported
Plant NAICS:	Not reported
NAICS Code:	Not reported
Plant Lat/Long:	Not reported
Plant Lat/Long (dms):	Not reported
Plant UTM East:	Not reported
Plant UTM North:	Not reported
Plant UTM Zone:	Not reported
Point Process SIC:	Not reported
Point Num:	1
Point NAICS:	Not reported
Lat/Long:	Not reported
Lat/Long (dms):	Not reported
Point UTM East:	Not reported
Point UTM North:	Not reported
Point UTM Zone:	Not reported
Point Desc:	GASOLINE DISPENSING FACILITY
Point Comments:	Not reported
Local ID:	Not reported
Local Air Agency ID:	F
Fed County Code:	Not reported
Source Number:	2392
Process ID:	1
Release Point Id:	Not reported
Release Point Description:	Not reported
Emissions Unit Id:	Not reported
Emissions Unit Design Capacity Quantity:	Not reported
Emissions Unit Design Capacity UOM Code:	Not reported
Emissions Unit Process Id:	Not reported
Insignificant Emissions Unit Flag:	Not reported
Calculation Material Code Description:	Not reported
Calculation Parameter Quantity:	Not reported
Calculation Parameter UOM Code:	Not reported
% Sulfur Content:	Not reported
% Ash Content:	Not reported
Heat Content:	Not reported
Heat Content Numerator UOM Code:	Not reported
Heat Content Denominator UOM Code:	Not reported
PM-CON:	Not reported
Tot Suspended Partclte Emissions Estmn Code:	Not reported
PM10 Nonattainment Area:	Not reported
% Control Of Sulfur Dioxide Emissions:	Not reported
NO2 Chemical:	Not reported
% Cntrl Of Volatile Organic Compound Emissions:	Not reported
CO Nonattainment Area:	Not reported
Univsl Business ID:	Not reported
Boilers Design Capacity At A Point:	Not reported
% Of Ops Occuring During Qtr Jan-Mar:	25
% Of Ops Occuring During Qtr Dec-Feb:	Not reported
% Of Ops Occuring During Qtr Apr-Jun:	25
% Of Ops Occuring During Qtr Mar-May:	Not reported
% Of Ops Occuring During Qtr Jun-Aug:	Not reported
% Of Ops Occuring During Qtr Jul-Sep:	25
% Of Ops Occuring During Qtr Sep-Nov:	Not reported
% Of Ops Occuring During Qtr Oct-Dec:	25
# Of Hours Facility Operates Each Day:	24
# Of Days Facility Operates Each Week:	7

ARCO AMPM - SHELTON (Continued) **S109394709**

# Of Weeks Facility Operates Each Year:	52
Exit Temp Of A Stack Or Vent:	Not reported
% Wtr In Stack / Vent Exhaust:	Not reported
Height Of Stack:	Not reported
Diameter Of Stack:	Not reported
Air Flow From A Vent Or Stack:	Not reported
% Oxygen In Stack / Vent Exhaust:	Not reported
Flow Rate:	Not reported
Flow Unit:	Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet:	Not reported
SCC Process Desc:	79900101
EPA Code For Throughput Unit Of Measure:	Not reported
EPA Mat Code For Throughput At Each Process:	Not reported
EPA Code For Mat Thruput Fate Desc/input/output/existing:	Not reported
Description Of Material:	Not reported
Annual Qty Of Throughput Mat:	Not reported
Maximum Rate/Amount Of Annual Throughput:	Not reported
% Of Sulfur In Fuels:	Not reported
% Of Ash In Fuels:	Not reported
Emission Unit Output Threshhold:	Not reported
Facility's Throughput Data Confidential:	Not reported
Tot Suspended Partclt Emissn Tons/Year:	Not reported
Tot Suspended Partclte Emissions Estmn Code:	Not reported
Pri Particulate Matter Cntrl Tech Code At Point/Segment:	Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment:	Not reported
% Control Of Particulate Matter Emissions:	Not reported
Particulate Matter Emission (?10microns) Tons/Year:	Not reported
Partclte Matter Emission (?10microns) Est Code:	Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg:	Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns:	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr:	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code:	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg:	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions:	Not reported
Sulfur Dioxide Emissions Tons/Year:	Not reported
Sulfur Dioxide Emission Estimation Code:	Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg:	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg:	Not reported
% Control Of Sulfur Dioxide Emissions:	Not reported
Nitrous Oxides Emissions In Tons/Yr:	Not reported
Nitrous Oxides Emission Estimation Code:	Not reported
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment:	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment:	Not reported
% Control Of Nitrous Oxides Emissions:	Not reported
Volatile Organic Compound Emitted Desc:	Not reported
Volatile Organic Compound Emissions In Tons/Year:	22
Voltl Organic Compound Emissions Est Code:	Not reported
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg:	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Volatile Organic Compound Emissions:	Not reported
Carbon Monoxide Emissions In Tons/Year:	Not reported
Carbon Monoxide Emission Est Code:	Not reported
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg:	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Carbon Monoxide Emissions:	Not reported

ARCO AMPM - SHELTON (Continued) **S109394709**

Lead Emissions In Tons/Year:	Not reported
Lead Emission Estimation Code:	Not reported
PM10 Nonattainment Area:	Not reported
Ozone Nonattainment Area:	Not reported
CO Nonattainment Area:	Not reported
UTM East:	Not reported
UTM North:	Not reported
UTM Zone:	Not reported
P NH3 Control:	Not reported
NH3 tpy:	Not reported
S NH3 ctrl:	Not reported
NH3 % ctrl:	Not reported
STK ACFS:	Not reported
SCC Process Desc:	Not reported
Primary Control Device Code for SO2:	Not reported
Secondary Control Device Code for SO2:	Not reported
Insignificant Emissions Unit:	False
Latitude/Longitude:	Not reported
Whether Source Is An AOP(Title V) Source:	False
Control Code1:	Not reported
Control Code2:	Not reported
Control Code3:	Not reported
Control Code4:	Not reported
Control Code5:	Not reported
Control Code6:	Not reported
Facility Site Supplemental Address:	Not reported
User Defined Site Code:	Not reported
User Defined RP Identifier Code:	Not reported
Release Point Status Code Description:	Not reported
Release Point Exit Gas Velocity Measure Quantity:	Not reported
Release Point Gas Velocity UOMCode:	Not reported
Release Point Exit Gas Flow Rate Measure Quantity:	Not reported
Release Point Gas Flow Rate UOM Code:	Not reported
Release Point Exit Gas Temperature Measure Quantity:	Not reported
Water Vapor % Quantity:	Not reported
Oxygen % Quantity:	Not reported
User Defined Unit Identifier Code:	Not reported
Emissions Unit Description:	Not reported
Unit Status Code Description:	Not reported
User Defined Process Identifier Code:	Not reported
Emission Unit Process Description:	Not reported
Short Name Description:	Not reported
Actual Hours Per Period Quantity:	Not reported
Pollutant Type Code:	Not reported
Average % Emissions Quantity:	Not reported
Contact Name:	JOHN MAHONEY
Contact Phone:	Not reported
Contact Fax:	Not reported
Contact E-mail:	Not reported
Emissions Unit Process Status Code:	Not reported
Mailing Name:	Not reported
Mailing Address:	106 E WALLACE KNEELAND
Mailing City,St,Zip:	SHELTON, WA 98584
Year Of Info:	2008
Facility ID:	Not reported
Facility Type:	Not reported

ARCO AMPM - SHELTON (Continued) **S109394709**

Facility Category Short Name:	Not reported
Facility Site Status Description:	Not reported
Ecolgy Fac ID:	Not reported
Plant Name:	Not reported
Plant SIC Code:	Not reported
Plant NAICS:	Not reported
NAICS Code:	Not reported
Plant Lat/Long:	Not reported
Plant Lat/Long (dms):	Not reported
Plant UTM East:	Not reported
Plant UTM North:	Not reported
Plant UTM Zone:	Not reported
Point Process SIC:	Not reported
Point Num:	1
Point NAICS:	Not reported
Lat/Long:	Not reported
Lat/Long (dms):	Not reported
Point UTM East:	Not reported
Point UTM North:	Not reported
Point UTM Zone:	Not reported
Point Desc:	GASOLINE DISPENSING FACILITY
Point Comments:	Not reported
Local ID:	Not reported
Local Air Agency ID:	F
Fed County Code:	Not reported
Source Number:	2392
Process ID:	2621255
Release Point Id:	Not reported
Release Point Description:	Not reported
Emissions Unit Id:	Not reported
Emissions Unit Design Capacity Quantity:	Not reported
Emissions Unit Design Capacity UOM Code:	Not reported
Emissions Unit Process Id:	Not reported
Insignificant Emissions Unit Flag:	Not reported
Calculation Material Code Description:	Not reported
Calculation Parameter Quantity:	Not reported
Calculation Parameter UOM Code:	Not reported
% Sulfur Content:	Not reported
% Ash Content:	Not reported
Heat Content:	Not reported
Heat Content Numerator UOM Code:	Not reported
Heat Content Denominator UOM Code:	Not reported
PM-CON:	Not reported
Tot Suspended Partclte Emissions Estmn Code:	Not reported
PM10 Nonattainment Area:	Not reported
% Control Of Sulfur Dioxide Emissions:	Not reported
NO2 Chemical:	Not reported
% Cntrl Of Volatile Organic Compound Emissions:	Not reported
CO Nonattainment Area:	Not reported
Univsl Business ID:	Not reported
Boilers Design Capacity At A Point:	Not reported
% Of Ops Occuring During Qtr Jan-Mar:	25
% Of Ops Occuring During Qtr Dec-Feb:	Not reported
% Of Ops Occuring During Qtr Apr-Jun:	25
% Of Ops Occuring During Qtr Mar-May:	Not reported
% Of Ops Occuring During Qtr Jun-Aug:	Not reported
% Of Ops Occuring During Qtr Jul-Sep:	25

ARCO AMPM - SHELTON (Continued) **S109394709**

% Of Ops Occuring During Qtr Sep-Nov:	Not reported
% Of Ops Occuring During Qtr Oct-Dec:	25
# Of Hours Facility Operates Each Day:	24
# Of Days Facility Operates Each Week:	7
# Of Weeks Facility Operates Each Year:	52
Exit Temp Of A Stack Or Vent:	Not reported
% Wtr In Stack / Vent Exhaust:	Not reported
Height Of Stack:	Not reported
Diameter Of Stack:	Not reported
Air Flow From A Vent Or Stack:	Not reported
% Oxygen In Stack / Vent Exhaust:	Not reported
Flow Rate:	Not reported
Flow Unit:	Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet:	Not reported
SCC Process Desc:	79900101
EPA Code For Throughput Unit Of Measure:	Not reported
EPA Mat Code For Throughput At Each Process:	Not reported
EPA Code For Mat Thruput Fate Desc/input/output/existing:	Not reported
Description Of Material:	Not reported
Annual Qty Of Throughput Mat:	Not reported
Maximum Rate/Amount Of Annual Throughput:	Not reported
% Of Sulfur In Fuels:	Not reported
% Of Ash In Fuels:	Not reported
Emission Unit Output Threshhold:	Not reported
Facility's Throughput Data Confidential:	Not reported
Tot Suspended Partclt Emissn Tons/Year:	Not reported
Tot Suspended Partclte Emissions Estmn Code:	Not reported
Pri Particulate Matter Cntrl Tech Code At Point/Segment:	Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment:	Not reported
% Control Of Particulate Matter Emissions:	Not reported
Particulate Matter Emission (?10microns) Tons/Year:	Not reported
Partclte Matter Emission (?10microns) Est Code:	Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg:	Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns:	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr:	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code:	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg:	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions:	Not reported
Sulfur Dioxide Emissions Tons/Year:	Not reported
Sulfur Dioxide Emission Estimation Code:	Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg:	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg:	Not reported
% Control Of Sulfur Dioxide Emissions:	Not reported
Nitrous Oxides Emissions In Tons/Yr:	Not reported
Nitrous Oxides Emission Estimation Code:	Not reported
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment:	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment:	Not reported
% Control Of Nitrous Oxides Emissions:	Not reported
Volatile Organic Compound Emitted Desc:	Not reported
Volatile Organic Compound Emissions In Tons/Year:	25
Voltl Organic Compound Emissions Est Code:	Not reported
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg:	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Volatile Organic Compound Emissions:	Not reported
Carbon Monoxide Emissions In Tons/Year:	Not reported

ARCO AMPM - SHELTON (Continued) **S109394709**

Carbon Monoxide Emission Est Code:	Not reported
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg:	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Carbon Monoxide Emissions:	Not reported
Lead Emissions In Tons/Year:	Not reported
Lead Emission Estimation Code:	Not reported
PM10 Nonattainment Area:	Not reported
Ozone Nonattainment Area:	Not reported
CO Nonattainment Area:	Not reported
UTM East:	Not reported
UTM North:	Not reported
UTM Zone:	Not reported
P NH3 Control:	Not reported
NH3 tpy:	Not reported
S NH3 ctrl:	Not reported
NH3 % ctrl:	Not reported
STK ACFS:	Not reported
SCC Process Desc:	Not reported
Primary Control Device Code for SO2:	Not reported
Secondary Control Device Code for SO2:	Not reported
Insignificant Emissions Unit:	Not reported
Latitude/Longitude:	47.227069999999998 / 123.12773
Whether Source Is An AOP(Title V) Source:	False
Control Code1:	Not reported
Control Code2:	Not reported
Control Code3:	Not reported
Control Code4:	Not reported
Control Code5:	Not reported
Control Code6:	Not reported
Facility Site Supplemental Address:	Not reported
User Defined Site Code:	Not reported
User Defined RP Identifier Code:	Not reported
Release Point Status Code Description:	Not reported
Release Point Exit Gas Velocity Measure Quantity:	Not reported
Release Point Gas Velocity UOMCode:	Not reported
Release Point Exit Gas Flow Rate Measure Quantity:	Not reported
Release Point Gas Flow Rate UOM Code:	Not reported
Release Point Exit Gas Temperature Measure Quantity:	Not reported
Water Vapor % Quantity:	Not reported
Oxygen % Quantity:	Not reported
User Defined Unit Identifier Code:	Not reported
Emissions Unit Description:	Not reported
Unit Status Code Description:	Not reported
User Defined Process Identifier Code:	Not reported
Emission Unit Process Description:	Not reported
Short Name Description:	Not reported
Actual Hours Per Period Quantity:	Not reported
Pollutant Type Code:	Not reported
Average % Emissions Quantity:	Not reported
Contact Name:	JOHN MAHONEY
Contact Phone:	Not reported
Contact Fax:	Not reported
Contact E-mail:	Not reported
Emissions Unit Process Status Code:	Not reported
Mailing Name:	Not reported
Mailing Address:	106 E WALLACE KNEELAND
Mailing City,St,Zip:	SHELTON, WA 98584

ARCO AMPM - SHELTON (Continued) **S109394709**

WA MANIFEST:

Name:	ARCO 82609
Address:	106 E WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	447110
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	602629865
Business Type:	Gas station with store
Mail Name:	Opulent Sales LLC
Mailing Address:	106 E Wallace Kneeland Blvd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Opulent Sales LLC
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	106 E Wallace Kneeland Blvd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-2699
Legal Effective Date:	02/07/2007
Land Organization Name:	Mahoney Investments LLC
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	106 E Wallace Kneeland Blvd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-2699
Operator Organization Name:	Opulent Sales LLC
Operator Organization Type:	Private
Operator:	John Mahoney
Operator Address:	106 E Wallace Kneeland Blvd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-2699
Operator Effective Date:	02/02/2007
Site Contact:	John Mahoney

ARCO AMPM - SHELTON (Continued) **S109394709**

Site Contact Address:	106 E Wallace Kneeland Blvd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-2699
Site Contact Email:	mrmahoneyjr@yahoo.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

T95 **AM/PM GAS STATION** **WA RGA LUST** **S115429303**
SSW **106 E WALLACE KNEELAND BLVD** **N/A**
> 1 **SHELTON, WA**
1.235 mi.
6520 ft. **Site 7 of 10 in cluster T**

Relative: RGA LUST:
Lower

2010	AM/PM GAS STATION	106 E WALLACE KNEELAND BLVD
2009	AM/PM GAS STATION	106 E WALLACE KNEELAND BLVD
2008	AM/PM GAS STATION	106 E WALLACE KNEELAND BLVD
2007	AM/PM GAS STATION	106 E WALLACE KNEELAND BLVD

Actual:
228 ft.

T96 **ARCO 82609** **WA RGA LUST** **S115429650**
SSW **106 E WALLACE KNEELAND BLVD** **N/A**
> 1 **SHELTON, WA**
1.235 mi.
6520 ft. **Site 8 of 10 in cluster T**

Relative: RGA LUST:
Lower

2012	ARCO 82609	106 E WALLACE KNEELAND BLVD
2011	ARCO 82609	106 E WALLACE KNEELAND BLVD

Actual:
228 ft.

T97 **ARCO 82609** **RCRA NonGen / NLR** **1004795070**
SSW **106 E WALLACE KNEELAND BLVD** **FINDS** **WAR000007260**
> 1 **SHELTON, WA 98584** **ECHO**
1.235 mi. **WA MANIFEST**
6520 ft. **Site 9 of 10 in cluster T**

Relative: RCRA NonGen / NLR:
Lower

Date form received by agency:	03/14/2018
Facility name:	ARCO 82609
Facility address:	106 E WALLACE KNEELAND BLVD SHELTON, WA 98584
EPA ID:	WAR000007260
Contact:	JOHN MAHONEY

Actual:
228 ft.

ARCO 82609 (Continued) **1004795070**

Contact address: 106 E WALLACE KNEELAND BLVD
SHELTON, WA 98584
Contact country: US
Contact telephone: 360-426-2699
Contact email: MRMAHONEYJR@YAHOO.COM
EPA Region: 10
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ARCO 82609
Owner/operator address: 106 E WALLACE KNEELAND BLVD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-2699
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/07/2007
Owner/Op end date: Not reported

Owner/operator name: MAHONEY INVESTMENTS LLC
Owner/operator address: 106 E WALLACE KNEELAND BLVD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-2699
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/14/2018
Site name: ARCO 82609

ARCO 82609 (Continued) **1004795070**

Classification: Not a generator, verified

Date form received by agency: 03/02/2017
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/01/2016
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/23/2015
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/01/2014
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/03/2013
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 02/29/2012
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 02/29/2012
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/03/2011
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/03/2011
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/01/2010
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/01/2010
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 03/02/2009
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 12/31/2008
Site name: ARCO 82609
Classification: Not a generator, verified

Date form received by agency: 02/29/2008
Site name: ARCO 82609
Classification: Conditionally Exempt Small Quantity Generator

ARCO 82609 (Continued) **1004795070**

Date form received by agency: 05/21/2007
Site name: ARCO 82609
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 05/21/2007
Site name: ARCO 82609
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/23/2007
Site name: ARCO 5958
Classification: Small Quantity Generator

Date form received by agency: 02/27/2006
Site name: ARCO 5958
Classification: Small Quantity Generator

Date form received by agency: 12/31/2005
Site name: ARCO 5958
Classification: Small Quantity Generator

Date form received by agency: 02/22/2005
Site name: ARCO 5958
Classification: Small Quantity Generator

Date form received by agency: 12/31/2004
Site name: ARCO 5958
Classification: Small Quantity Generator

Date form received by agency: 03/30/2004
Site name: ARCO 5958
Classification: Small Quantity Generator

Date form received by agency: 02/10/2003
Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/29/2002
Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/28/2001
Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/02/2000
Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/22/1999
Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/13/1998
Site name: ARCO 5958 PSI 5492
Classification: Not a generator, verified

Date form received by agency: 03/19/1997

ARCO 82609 (Continued) **1004795070**

Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 04/09/1996
Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/1994
Site name: ARCO 5958 PSI 5492
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110006461006

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1004795070
Registry ID: 110006461006
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110006461006

WA MANIFEST:

Name: ARCO 5958
Address: 106 E WALLACE NEELAND ST
City,State,Zip: SHELTON, WA 98584
Facility Address 2: Not reported

ARCO 82609 (Continued) **1004795070**

Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	44711
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001 & D018
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	FALSE
Mailing Address 2:	Not reported
Treatment by Generator:	FALSE
Mixed Radioactive Waste:	FALSE
Importer of Hazardous Waste:	FALSE
Immediate Recycler:	FALSE
Treatment/Storage/Disposal/Recycling Facility:	FALSE
Generator of Dangerous Fuel Waste:	FALSE
Generator Marketing to Burner:	FALSE
Other Marketers (i.e., blender, distributor, etc.):	FALSE
Utility Boiler Burner:	FALSE
Industry Boiler Burner:	FALSE
Industrial Furnace:	FALSE
Smelter Defferal:	FALSE
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	409018414
Business Type:	Gas station with store
Mail Name:	BP West Coast Products LLC
Mailing Address:	PO Box 6038
Mailing City,State,Zip:	ARTESIA, CA 90702-6038
Legal Organization Name:	BP West Coast Products LLC
Legal Organization Type:	Private
Legal Contact:	Teresa Santana
Legal Address:	PO BOX 6038
Legal Address 2:	Not reported
Legal City,State,Zip:	ARTESIA, CA 90702-6038
Legal Phone Number:	(714)670-3958
Legal Effective Date:	07/09/1996
Land Organization Name:	BP West Coast Products LLC
Land Organization Type:	Private
Land Contact:	Teresa Santana
Land Address:	PO BOX 6038
Land City,State,Zip:	ARTESIA, CA 90702-6038
Land Phone Number:	(714) 670-3958
Operator Organization Name:	BP West Coast Products LLC
Operator Organization Type:	Private
Operator:	Teresa Santana
Operator Address:	PO BOX 6038
Operator Address 2:	Not reported
Operator City,State,Zip:	ARTESIA, CA 90702-6038
Operator Phone Number:	(714)670-3958
Operator Effective Date:	07/09/1996
Site Contact:	Teresa Santana
Site Contact Address:	PO BOX 6038
Contact City,State,Zip:	ARTESIA, CA 90702
Site Contact Phone Number:	(714) 670-3958
Site Contact Email:	santanta@bp.com
Gen Status Code:	MQG

ARCO 82609 (Continued) **1004795070**

Monthly Generation:	FALSE
Batch Generation:	TRUE
One Time Generation:	FALSE
Transport Own Waste:	FALSE
Tranports Other Waste:	FALSE
Recycler Onsite:	FALSE
Transfer Facility:	FALSE
Other Exemption:	Not reported
UW Battery Gen:	FALSE
Used Oil Transporter:	FALSE
Used Oil Transfer Facility:	FALSE
Used Oil Processor:	FALSE
Used Oil Refiner:	FALSE
Used Oil Fuel Marketer Directs Shipments:	FALSE
Used Oil Fuel Marketer Meets Specs:	FALSE
Site Contact Address 2:	Not reported
Name:	ARCO 5958
Address:	106 E WALLACE NEELAND ST
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	64487875
EPA ID:	WAR000007260
NAICS:	44711
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D001 & D018
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	No
Mailing Address 2:	Not reported
Treatment by Generator:	No
Mixed Radioactive Waste:	No
Importer of Hazardous Waste:	No
Immediate Recycler:	No
Treatment/Storage/Disposal/Recycling Facility:	No
Generator of Dangerous Fuel Waste:	No
Generator Marketing to Burner:	No
Other Marketers (i.e., blender, distributor, etc.):	No
Utility Boiler Burner:	No
Industry Boiler Burner:	No
Industrial Furnace:	No
Smelter Defferal:	No
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	409018414
Business Type:	Gas station with store
Mail Name:	BP West Coast Products LLC
Mailing Address:	PO Box 6038
Mailing City,State,Zip:	ARTESIA, CA 90702-6038
Legal Organization Name:	BP West Coast Products LLC
Legal Organization Type:	Private
Legal Contact:	Teresa Santana
Legal Address:	PO BOX 6038
Legal Address 2:	Not reported
Legal City,State,Zip:	ARTESIA, CA 90702-6038
Legal Phone Number:	(714)670-3958

ARCO 82609 (Continued) **1004795070**

Legal Effective Date:	07/09/1996
Land Organization Name:	BP West Coast Products LLC
Land Organization Type:	Private
Land Contact:	Teresa Santana
Land Address:	PO BOX 6038
Land City,State,Zip:	ARTESIA, CA 90702-6038
Land Phone Number:	(714) 670-3958
Operator Organization Name:	BP West Coast Products LLC
Operator Organization Type:	Private
Operator:	Teresa Santana
Operator Address:	PO BOX 6038
Operator Address 2:	Not reported
Operator City,State,Zip:	ARTESIA, CA 90702-6038
Operator Phone Number:	(714)670-3958
Operator Effective Date:	07/09/1996
Site Contact:	Teresa Santana
Site Contact Address:	PO BOX 6038
Contact City,State,Zip:	ARTESIA, CA 90702
Site Contact Phone Number:	(714) 670-3958
Site Contact Email:	santanta@bp.com
Gen Status Code:	MQG
Monthly Generation:	No
Batch Generation:	Yes
One Time Generation:	No
Transport Own Waste:	No
Tranports Other Waste:	No
Recycler Onsite:	No
Transfer Facility:	No
Other Exemption:	Not reported
UW Battery Gen:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Fuel Marketer Directs Shipments:	No
Used Oil Fuel Marketer Meets Specs:	No
Site Contact Address 2:	Not reported

T98 **ARCO** **WA SPILLS** **S105554964**
SSW **106 EAST WALLACE KNEELAND ROAD** **N/A**
> 1 **SHELTON, WA**
1.235 mi.
6520 ft. **Site 10 of 10 in cluster T**

Relative: SPILLS:
Lower

Name:	ARCO
Address:	106 EAST WALLACE KNEELAND ROAD
City,State,Zip:	SHELTON, WA
Facility ID:	528614
Medium:	Not reported
Material Desc:	PETROLEUM - GASOLINE
Material Qty:	2
Material Units:	GALLON
Date Received:	08/23/2002
Contact Name:	ZAFRA
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported

Actual:
228 ft.

ARCO (Continued) **S105554964**

Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

U99 **BRADYS NURSERY** **WA RGA LF** **S115349831**
ESE **920 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA**
1.237 mi.
6530 ft. **Site 1 of 2 in cluster U**

Relative: RGA LF:
Lower

2009	BRADYS NURSERY	920 E JOHNS PRAIRIE RD
2008	BRADYS NURSERY	920 E JOHNS PRAIRIE RD
2007	BRADYS NURSERY	920 E JOHNS PRAIRIE RD
2006	BRADYS NURSERY	920 E JOHNS PRAIRIE RD

Actual:
238 ft.

U100 **BRADY'S NURSERY** **WA SWF/LF** **S118401530**
ESE **920 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.237 mi.
6530 ft. **Site 2 of 2 in cluster U**

Relative: SWF/LF:
Lower

Name:	BRADY'S NURSERY
Address:	920 E JOHNS PRAIRIE RD
City,State,Zip:	SHELTON, WA 98584
Facility ID:	845
Region:	STATE
Permit Status:	Unregulated
Contact Organization:	Bradys Nursery
Contact Address1:	920 E Johns Prairie Rd
Contact Address2:	Not reported
Contact City:	Shelton
Contact State:	WA
Contact Postal:	98584
Contact EMail:	Not reported
Contact Phone:	(360) 426-3747
Contact Phone Ext:	Not reported
Permit No:	Not reported
Phone:	Not reported
Operator Name:	Not reported
Operator Organization:	Bradys Nursery
Operator EMail:	Not reported
Operator Title:	Not reported
Recycle Survey Code:	7139
Ownership:	PRIVATE
Facility Type:	Recycling (non-regulated)
Contact Name:	Sharon Tibbits
Contact Title:	Not reported
Year Closed:	2010

Actual:
238 ft.

BRADY'S NURSERY (Continued) **S118401530**

Open to Public Flag: No
Website: Not reported
Latitude: Not reported
Longitude: Not reported

S101 **WA317947269 - WHISKEY RIDGE MANUFACTURING LLC** **FINDS** **1024425153**
ESE **21 ADONAI CT** **N/A**
> 1 **SHELTON, WA 98584**
1.250 mi.
6598 ft. **Site 2 of 2 in cluster S**

Relative: **Higher**

Actual: **244 ft.**

FINDS:

Registry ID: 110070345073

Environmental Interest/Information System
OSHA ESTABLISHMENT

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

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102 **WA SPILLS** **S120917507**
ENE **N/A**
> 1 **SHELTON, WA**
1.252 mi.
6610 ft.

Relative: **Lower**

Actual: **218 ft.**

SPILLS:

Name:	Not reported
Address:	Not reported
City,State,Zip:	SHELTON, WA
Facility ID:	94989
Medium:	Roadway - Unpaved
Material Desc:	MINERAL OIL/TRANSFORMER OIL
Material Qty:	1
Material Units:	Not reported
Date Received:	Not reported
Contact Name:	Not reported
Incident Date:	08/23/2017
Incident Category Type:	Oil Spill
Incident Category:	Oil Spill
Latitude:	47.2544
Longitude:	-123.0959
Source Type:	Facility
Source:	Power Generation Utility
Vessel Facility Name2:	Not reported
Recovered Quantity:	0
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Mason County PUD

V103 **DAVES PERFORMANCE MACHINE** **FINDS** **1012222252**
East **1341 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.260 mi.
6653 ft. **Site 1 of 5 in cluster V**

Relative: **Higher**

FINDS:

Actual: **242 ft.**

Registry ID: 110040598939

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

V104 **DAVES PERFORMANCE MACHINE** **WA ALLSITES** **S110275896**
East **1341 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.260 mi.
6653 ft. **Site 2 of 5 in cluster V**

Relative: **Higher**

ALLSITES:

Actual: **242 ft.**

Facility Name:	DAVES PERFORMANCE MACHINE
Facility Id:	10369
Interaction:	91180
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Daves Performance Machine
Program ID:	Not reported
Date Interaction:	2009-05-20 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.245956485000001
Longitude:	-123.095961071

V105 **APEX COLLISION SERVICES INC** **FINDS** **1016704968**
East **1347 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.263 mi.
6666 ft. **Site 3 of 5 in cluster V**

Relative: **Lower**

FINDS:

Actual: **241 ft.**

Registry ID: 110056461975

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington

APEX COLLISION SERVICES INC (Continued) **1016704968**

Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

V106 **APEX COLLISION SERVICES INC** **WA ALLSITES** **S110700520**
East **1347 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.263 mi.
6666 ft. **Site 4 of 5 in cluster V**

Relative: ALLSITES:
Lower
Actual: Facility Name: APEX COLLISION SERVICES INC
241 ft. Facility Id: 18143

Interaction: 95001
Interaction 1: I
Interaction 2: LSC
Ecology Program: HAZWASTE
Program Data: LSC
Facility Alt.: Apex Collision Services Inc
Program ID: Not reported
Date Interaction: 2010-07-20 00:00:00
Date Interaction 3: Local Source Cntrl 7/09-3
Latitude: 47.246016484999998
Longitude: -123.09588707100001

V107 **NEAR:** **WA SPILLS** **S123248963**
East **1347 E JOHNS PRAIRIE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.263 mi.
6666 ft. **Site 5 of 5 in cluster V**

Relative: SPILLS:
Lower
Actual: Name: NEAR:
241 ft. Address: 1347 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA 98584
Facility ID: 103387
Medium: Roadway - Paved
Material Desc: LUBE OIL/MOTOR OIL
Material Qty: 300
Material Units: Gals
Date Received: Not reported
Contact Name: Not reported
Incident Date: 10/24/2018
Incident Category Type: Oil Spill
Incident Category: Vehicular Accident-Oil Spill
Latitude: 47.2485
Longitude: -123.09354
Source Type: Vehicle
Source: Commercial Truck

NEAR: (Continued) **S123248963**

Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Masco Petroleum

108
SSE
> 1
1.280 mi.
6757 ft.

INGRAHAM OIL COMPANY INC **EDR Hist Auto** **1021850563**
6 COMET LN **N/A**
SHELTON, WA 98584

Relative:
Lower

Actual:
224 ft.

EDR Hist Auto

Year:	Name:	Type:
1998	INGRAHAM OIL COMPANY INC	Gasoline Service Stations, NEC
2012	INGRAHAM OIL COMPANY INC	Gasoline Service Stations, NEC
2013	INGRAHAM OIL COMPANY INC	Gasoline Service Stations, NEC
2014	INGRAHAM OIL COMPANY INC	Gasoline Service Stations, NEC

109
ESE
> 1
1.291 mi.
6814 ft.

WA317946698 - SSI CABLE CORPORATION **FINDS** **1024393580**
820 E HIAWATHA BLVD **N/A**
SHELTON, WA 98584

Relative:
Higher

Actual:
246 ft.

FINDS:

Registry ID: 110070306044

Environmental Interest/Information System
OSHA ESTABLISHMENT

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

W110
South
> 1
1.302 mi.
6872 ft.

SHELTON SOC 070821 **WA UST** **U003352994**
140 BELL LN **N/A**
SHELTON, WA 98584

Site 1 of 5 in cluster W

Relative:
Lower

Actual:
226 ft.

UST:

Facility ID:	45763147
Site Id:	10463
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.230277000000001
Decimal Longitude:	-123.122499
Tank Name:	1AUTOMOTIVE
Tag Number:	Not reported
Tank Status:	Removed

SHELTON SOC 070821 (Continued) **U003352994**

Tank Status Date:	8/6/1996
Tank Install Date:	00/01/1975
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	07/10/1992
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Sacrificial Anode
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

W111 **US WEST SOC** **WA LUST S104487811**
South **140 BELL LN** **WA ICR N/A**
> 1 **SHELTON, WA 98584** **WA ALLSITES**
1.302 mi. **WA CSCSL NFA**
6872 ft. **Site 2 of 5 in cluster W**

Relative: **Lower**
Actual: **226 ft.**

LUST:

Name:	US WEST SOC
Address:	140 BELL LN
City,State,Zip:	SHELTON, WA 98584
Facility ID:	45763147
Lust Status Type:	LUST - NFA
Cleanup Site ID:	6117
Cleanup Unit Type:	Not reported
Process Type:	Not reported
Cleanup Unit Name:	SHELTON SOC 070821
Response Section:	Southwest
Release Date:	09/26/1991
Lust Date:	12/18/1996
Region:	Southwest
Lust ID:	1524
UST ID:	10463
Contaminant Name:	Petroleum-Other
Ground Water:	Confirmed Above Cleanup Levels
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Levels
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Lat/Long:	47.230277 / -123.12249

ICR:

Date Ecology Received Report:	03/05/92

US WEST SOC (Continued) **S104487811**

Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Waste Management:	Tank
Region:	South Western
Type of Report Ecology Received:	Final cleanup report
Site Register Issue:	92-19
County Code:	23
Contact:	Not reported
Report Title:	Not reported

Date Ecology Received Report:	11/01/96
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Groundwater, Soil
Waste Management:	Tank
Region:	South Western
Type of Report Ecology Received:	Final cleanup report
Site Register Issue:	94-39
County Code:	23
Contact:	Not reported
Report Title:	Not reported

ALLSITES:

Facility Name:	US WEST SOC
Facility Id:	45763147

Interaction:	46016
Interaction 1:	I
Interaction 2:	LUST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Not reported
Program ID:	10463
Date Interaction:	1991-09-26 00:00:00
Date Interaction 3:	LUST Facility
Latitude:	47.230271489000003
Longitude:	-123.122484071

Interaction:	46015
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	10463
Date Interaction:	1975-01-01 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.230271489000003
Longitude:	-123.122484071

Interaction:	46017
Interaction 1:	I
Interaction 2:	IRAP
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	US WEST SOC

US WEST SOC (Continued) **S104487811**

Program ID:	Not reported
Date Interaction:	1996-12-17 00:00:00
Date Interaction 3:	Independent Remedial Actn
Latitude:	47.230271489000003
Longitude:	-123.122484071

CSCSL NFA:

Name:	US WEST SOC
Address:	140 BELL LN
City,State,Zip:	SHELTON, WA 98584
Facility/Site Id:	45763147
CS Id:	6117
NFA Date:	12/18/1996
Alternate Site Names:	SHELTON SOC 070821
NFA Reason:	NFA-Independent Remedial Action Program Review
Site Status:	NFA
Region:	Southwest
Contaminant Name:	Petroleum-Other
Ground Water:	Confirmed Above Cleanup Levels
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Levels
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Latitude:	47.230277
Longitude:	-123.122499

W112 **US WEST SOC** **FINDS** **1007070356**
South **140 BELL LN** **N/A**
> 1 **SHELTON, WA 98584**
1.302 mi.
6872 ft. **Site 3 of 5 in cluster W**

Relative:
Lower

Actual:
226 ft.

FINDS:

Registry ID: 110015469660

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

W113 **SHELTON SOC 070821** **WA RGA LUST** **S115443174**
South **140 BELL LN** **N/A**
> 1 **SHELTON, WA**
1.302 mi.
6872 ft. **Site 4 of 5 in cluster W**

Relative: RGA LUST:
Lower

Actual:	1996	SHELTON SOC 070821	140 BELL LN
226 ft.	1995	SHELTON SOC 070821	140 BELL LN

X114 **VEHICLE OWNER** **WA SPILLS** **S106238382**
South **301 EAST WALLACE KNEELAND BOULEVARD** **N/A**
> 1 **SHELTON, WA**
1.302 mi.
6876 ft. **Site 1 of 7 in cluster X**

Relative: SPILLS:
Lower

Actual: Name:	VEHICLE OWNER
228 ft. Address:	301 EAST WALLACE KNEELAND BOULEVARD
City,State,Zip:	SHELTON, WA
Facility ID:	538614
Medium:	Not reported
Material Desc:	PETROLEUM - OIL OTHER
Material Qty:	20
Material Units:	GALLON
Date Received:	01/24/2004
Contact Name:	DEMMON
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported
Name:	Not reported
Address:	301 WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA
Facility ID:	647431
Medium:	IMPERMEABLE CONTAINMENT
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	7
Material Units:	GALLON
Date Received:	Not reported
Contact Name:	Unknown
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported

VEHICLE OWNER (Continued) **S106238382**

Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported
Name:	Not reported
Address:	301 WALLACE KNEELAND BLVD
City,State,Zip:	SHELTON, WA
Facility ID:	647431
Medium:	IMPERMEABLE CONTAINMENT
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	7
Material Units:	GALLON
Date Received:	03/12/2014
Contact Name:	Unknown
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

X115 **JAMES FOOD MART** **FINDS** **1007066393**
South **301 E WALLACE KNEELAND BLVD** **N/A**
> 1 **SHELTON, WA 98584**
1.302 mi.
6876 ft. **Site 2 of 7 in cluster X**

Relative: **Lower**

Actual: **228 ft.**

FINDS:

Registry ID: 110015429767

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Registry ID: 110056469325

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

JAMES FOOD MART (Continued) **1007066393**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

X116 **KNEELAND PLAZA CLEANERS** **EDR Hist Cleaner** **1018719227**
South **301 E WALLACE KNEELAND BL** **N/A**
> 1 **SHELTON, WA 98584**
1.302 mi.
6876 ft. **Site 3 of 7 in cluster X**

Relative: EDR Hist Cleaner
Lower

Actual: **228 ft.**

Year:	Name:	Type:
1997	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
1998	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
1999	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2000	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2001	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2002	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2003	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2004	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2005	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2006	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2007	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs
2008	KNEELAND PLAZA CLEANERS	Drycleaning Plants, Except Rugs

X117 **FRED MEYER #603 FUEL CENTER** **WA UST** **U003354142**
South **301 E WALLACE KNEELAND BLVD** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584**
1.302 mi.
6876 ft. **Site 4 of 7 in cluster X**

Relative: UST:
Lower

Actual: **228 ft.**

Facility ID:	71359371
Site Id:	341193
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.231228882247798
Decimal Longitude:	-123.124287616489
Tank Name:	1
Tag Number:	A4435
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1995
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	05/29/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Steel Clad with Corrosion Resistant Composite
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported

FRED MEYER #603 FUEL CENTER (Continued) **U003354142**

Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Flexible Piping
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	A4435
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1995
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	05/29/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Steel Clad with Corrosion Resistant Composite
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Flexible Piping
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	3
Tag Number:	A4435
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1995
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	05/29/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Steel Clad with Corrosion Resistant Composite
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging

FRED MEYER #603 FUEL CENTER (Continued) **U003354142**

Tank SFC Type:	Not reported
Pipe Material:	Flexible Piping
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	4
Tag Number:	A4435
Tank Status:	Operational
Tank Status Date:	8/6/1996
Tank Install Date:	00/06/1995
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	02/29/2020
Tank Upgrade Date:	06/29/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Dielectric Coated Steel
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Flexible Piping
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	T1
Tag Number:	A5733
Tank Status:	Operational
Tank Status Date:	10/10/2016
Tank Install Date:	00/25/2016
Tank Closure Date:	Not reported
Capacity Range:	20,000 to 29,999 Gallons
Tank Permit Expiration Date:	12/31/2018
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Other
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Non-Manifolded Tank
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Sump

FRED MEYER #603 FUEL CENTER (Continued) **U003354142**

Pipe Material:	Flexible Piping
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Sump

Tank Name:	T2
Tag Number:	A5733
Tank Status:	Operational
Tank Status Date:	10/10/2016
Tank Install Date:	00/25/2016
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	12/31/2018
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Other
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Non-Manifolded Tank
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Sump
Pipe Material:	Flexible Piping
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Second Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Sump

ALLSITES:

Facility Name:	FRED MEYER FUEL 603
Facility Id:	21924

Interaction:	119762
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Fred Meyer Fuel 603
Program ID:	620312
Date Interaction:	2016-10-10 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.230683659
Longitude:	-123.125357178

Facility Name:	KNEELAND PLAZA CLEANERS
Facility Id:	23424

FRED MEYER #603 FUEL CENTER (Continued) **U003354142**

Interaction:	91324
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Kneeland Plaza Cleaners
Program ID:	Not reported
Date Interaction:	2009-08-25 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.230221487999998
Longitude:	-123.122643071

Facility Name:	JAMES FOOD MART
Facility Id:	71359371

Interaction:	60012
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	341193
Date Interaction:	1995-06-06 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.231223986000003
Longitude:	-123.124272058

X118 **JAMES FOOD MART** **WA Financial Assurance** **S121602821**
South **301 E WALLACE KNEELAND BLVD #** **N/A**
> 1 **SHELTON, WA 98584**
1.302 mi.
6876 ft. **Site 5 of 7 in cluster X**

Relative: **Lower**

Actual: **228 ft.**

WA Financial Assurance 1:

Name:	JAMES FOOD MART
Address:	301 E WALLACE KNEELAND BLVD #
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	341193
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	04/21/2015
Expiration Date:	04/07/2016
Address 2:	#135
Policy Number:	WA640188-9
Effective Date:	04/07/2015
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.231228882
Longitude:	-123.12428762

Name:	JAMES FOOD MART
Address:	301 E WALLACE KNEELAND BLVD #
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	341193
Financial Resp Type:	COLONY INSURANCE COMPANY

JAMES FOOD MART (Continued) **S121602821**

Inception Date:	03/22/2016
Expiration Date:	04/07/2017
Address 2:	#135
Policy Number:	WA640188-10
Effective Date:	03/22/2016
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.231228882
Longitude:	-123.12428762

Name:	JAMES FOOD MART
Address:	301 E WALLACE KNEELAND BLVD #
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	341193
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	04/07/2018
Expiration Date:	04/07/2019
Address 2:	#135
Policy Number:	WA640188-11
Effective Date:	04/07/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.231228882
Longitude:	-123.12428762

X119 **GRADENS SHELTON CHEVRON** **EDR Hist Auto** **1020822029**
South **301 E WALLCE KNEELND 13** **N/A**
> 1 **SHELTON, WA 98584**
1.302 mi.
6876 ft. **Site 6 of 7 in cluster X**

Relative: EDR Hist Auto
Lower

Actual: **228 ft.**

Year:	Name:	Type:
1996	GRADENS SHELTON CHEVRON	Convenience Stores
2000	GRADENS SHELTON CHEVRON	Convenience Stores
2001	GRADENS SHELTON CHEVRON	Convenience Stores
2002	GRADENS SHELTON CHEVRON	Convenience Stores
2003	GRADENS SHELTON CHEVRON	Convenience Stores
2004	GRADENS SHELTON CHEVRON	Convenience Stores
2005	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2006	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2007	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2008	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2009	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2010	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2011	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2012	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2013	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC
2014	GRADENS SHELTON CHEVRON	Gasoline Service Stations, NEC

X120 **GOODWILL OF THE OLYMPICS AND RAINIER REGION** **WA SWRCY** **S123795248**
South **301 WALLACE KNEELAND PLAZA BLVD STE. 210** **N/A**
> 1 **SHELTON, WA 98584**
1.302 mi.
6876 ft. **Site 7 of 7 in cluster X**

Relative: SWRCY:
Lower

Actual: Name: GOODWILL OF THE OLYMPICS AND RAINIER REGION
228 ft. Address: 301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip: SHELTON, WA 98584
Facility ID: 1533
Service: Goodwill Shelton Store
Phone: 360-426-0838
Extension: Not reported
Website: https://www.goodwillwa.org/
Email: colleenw@goodwillwa.org
Material Category: Home & garden
Material Accepted: Clothing, accessories
Contact Name: Operations Manager
Type: Residential
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments: Accept non-reusable textiles as well as reusable items.

Name: GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address: 301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip: SHELTON, WA 98584
Facility ID: 1533
Service: Goodwill Shelton Store
Phone: 360-426-0838
Extension: Not reported
Website: https://www.goodwillwa.org/
Email: colleenw@goodwillwa.org
Material Category: Electronics
Material Accepted: Computers & laptops
Contact Name: Operations Manager
Type: Residential
Service Type: Dropoff
Light Recycle Participant: No
E-Cycle: Yes
Hours: Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments: Accept non-reusable textiles as well as reusable items.

Name: GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address: 301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip: SHELTON, WA 98584
Facility ID: 1533
Service: Goodwill Shelton Store
Phone: 360-426-0838
Extension: Not reported
Website: https://www.goodwillwa.org/
Email: colleenw@goodwillwa.org
Material Category: Electronics
Material Accepted: Televisions (TVs)
Contact Name: Operations Manager
Type: Residential
Service Type: Dropoff

GOODWILL OF THE OLYMPICS AND RAINIER REGION (Continued) **S123795248**

Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Accept non-reusable textiles as well as reusable items.

Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Portable DVD players
Contact Name:	Operations Manager
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Accept non-reusable textiles as well as reusable items.

Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Monitors
Contact Name:	Operations Manager
Type:	Residential
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Accept non-reusable textiles as well as reusable items.

Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Tablets
Contact Name:	Operations Manager
Type:	Residential
Service Type:	Dropoff

GOODWILL OF THE OLYMPICS AND RAINIER REGION (Continued) **S123795248**

Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Accept non-reusable textiles as well as reusable items.
Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Computers & laptops
Contact Name:	Operations Manager
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Small businesses with less than 50 employees can use the E-Cycle WA program.
Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Televisions (TVs)
Contact Name:	Operations Manager
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Small businesses with less than 50 employees can use the E-Cycle WA program.
Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Portable DVD players
Contact Name:	Operations Manager

GOODWILL OF THE OLYMPICS AND RAINIER REGION (Continued) **S123795248**

Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Monitors
Contact Name:	Operations Manager
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Small businesses with less than 50 employees can use the E-Cycle WA program.

Name:	GOODWILL OF THE OLYMPICS AND RAINIER REGION
Address:	301 WALLACE KNEELAND PLAZA BLVD STE. 210
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1533
Service:	Goodwill Shelton Store
Phone:	360-426-0838
Extension:	Not reported
Website:	https://www.goodwillwa.org/
Email:	colleenw@goodwillwa.org
Material Category:	Electronics
Material Accepted:	Tablets
Contact Name:	Operations Manager
Type:	Commercial
Service Type:	Dropoff
Light Recycle Participant:	No
E-Cycle:	Yes
Hours:	Mon-Sat, 9am-9pm; Sun, 10am-7pm
Comments:	Small businesses with less than 50 employees can use the E-Cycle WA program.

W121 **L & R DIESEL SERVICE** **WA UST** **1007071793**
South **211 BELL LN** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584** **FINDS**
1.305 mi.
6890 ft. **Site 5 of 5 in cluster W**

Relative: **Lower**

Actual: **225 ft.**

UST:

Facility ID:	37339798
Site Id:	3119
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.230186000000003
Decimal Longitude:	-123.12420299999999
Tank Name:	1
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	111 TO 1,100 Gallons
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Above Ground Piping
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported
Tank Name:	2
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	111 TO 1,100 Gallons
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported

L & R DIESEL SERVICE (Continued) **1007071793**

Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Above Ground Piping
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

ALLSITES:
Facility Name: L & R DIESEL SERVICE
Facility Id: 37339798

Interaction: 41225
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 3119
Date Interaction: 1998-06-08 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.230180488000002
Longitude: -123.12418807100001

FINDS:

Registry ID: 110015484117

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Y122 **MASON COUNTY GARBAGE & RECYCLING** **FINDS** **1011848022**
East **81 WILBUR WAY** **N/A**
> 1 **SHELTON, WA 98584**
1.318 mi.
6959 ft. **Site 1 of 3 in cluster Y**

Relative: Higher

Actual: 251 ft.

FINDS:

Registry ID: 110037068936

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each

MASON COUNTY GARBAGE & RECYCLING (Continued) **1011848022**

facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Y123 **MASON COUNTY GARBAGE & RECYCLING** **WA RGA LF** **S115351305**
East **81 WILBUR WAY** **N/A**
> 1 **SHELTON, WA**
1.318 mi.
6959 ft. **Site 2 of 3 in cluster Y**

Relative: **Higher**
Actual: **251 ft.**

RGA LF:

2012	MASON COUNTY GARBAGE & RECYCLING	81 WILBUR WAY
2011	MASON COUNTY GARBAGE & RECYCLING	81 WILBUR WAY
2010	MASON COUNTY GARBAGE & RECYCLING	81 WILBUR WAY
2009	MASON COUNTY GARBAGE & RECYCLING	81 WILBUR WAY
2008	MASON COUNTY GARBAGE & RECYCLING	81 WILBUR WAY
2007	MASON COUNTY GARBAGE & RECYCLING	81 WILBUR WAY
2006	MASON COUNTY GARBAGE & RECYCLING	81 WILBUR WAY

Y124 **MASON COUNTY GARBAGE & RECYCLING** **WA SWF/LF** **S108108173**
East **81 WILBUR WAY** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584**
1.318 mi.
6959 ft. **Site 3 of 3 in cluster Y**

Relative: **Higher**
Actual: **251 ft.**

SWF/LF:

Name:	MASON COUNTY GARBAGE & RECYCLING
Address:	81 WILBUR WAY
City,State,Zip:	SHELTON, WA 98584
Facility ID:	1984
Region:	STATE
Permit Status:	Exempt
Contact Organization:	Mason County Garbage & Recycling
Contact Address1:	Po Box 787
Contact Address2:	Not reported
Contact City:	Shelton
Contact State:	WA
Contact Postal:	98584
Contact EMail:	rickf@wasteconnections.com
Contact Phone:	(360) 426-8729
Contact Phone Ext:	Not reported
Permit No:	Not reported
Phone:	(360) 426-8729
Operator Name:	Not reported
Operator Organization:	Mason County Garbage & Recycling
Operator EMail:	Not reported
Operator Title:	Not reported
Recycle Survey Code:	5390
Ownership:	Not reported
Facility Type:	Material Recovery Facility (exempt)
Contact Name:	Rik Fredrickson
Contact Title:	District Manager
Year Closed:	Not reported

MASON COUNTY GARBAGE & RECYCLING (Continued) **S108108173**

Open to Public Flag: No
Website: Not reported
Latitude: 47.2455532
Longitude: -123.09583

ALLSITES:
Facility Name: MASON COUNTY GARBAGE & RECYCLING
Facility Id: 4865154

Interaction: 15626
Interaction 1: A
Interaction 2: RECOVERY
Ecology Program: SOLIDWASTE
Program Data: SWFD
Facility Alt.: Mason County Garbage & Recycling
Program ID: Not reported
Date Interaction: 1900-01-01 00:00:00
Date Interaction 3: Energy Recovery
Latitude: 47.245547635999998
Longitude: -123.095815116

Interaction: 93945
Interaction 1: A
Interaction 2: CONSTSWGP
Ecology Program: WATQUAL
Program Data: PARIS
Facility Alt.: Mason County Garbage & Recycling
Program ID: Not reported
Date Interaction: 2010-08-03 00:00:00
Date Interaction 3: Construction SW GP
Latitude: 47.245547635999998
Longitude: -123.095815116

Z125 **GOOSE LAKE** **WA HSL** **1007080849**
SSW **NW OF SR 101** **WA CSCSL** **N/A**
> 1 **SHELTON, WA 98584** **WA BROWNFIELDS**
1.334 mi. **WA ALLSITES**
7046 ft. **Site 1 of 3 in cluster Z**

Relative:
Lower

Actual:
238 ft.

HSL:
Name: GOOSE LAKE
Address: Not reported
City,State,Zip: SHELTON, WA
edr_fstat: WA
edr_fzip: Not reported
edr_fcnty: MASON
edr_zip: Not reported
Facility Type: **Hazardous Sites List**
Facility Status: Cleanup Started
FSID Number: 1185
Rank: 2
Region: SW
EDR Link ID: 1185
Region Decode: SOUTHWEST REGIONAL OFFICE

GOOSE LAKE (Continued) **1007080849**

CSCSL:

Facility ID:	1185
Region:	Southwest
Lat/Long:	47.23176 / -123.13458
Brownfield Status:	Not reported
Rank Status:	2
Clean Up Siteid:	2537
Site Status:	Cleanup Started
PSI?:	Not reported
Contaminant Name:	Conventional Contaminants, Inorganic
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Not reported
Sediment:	Confirmed Above Cleanup Level
Air:	Not reported
Bedrock:	Not reported
Responsible Unit:	Southwest

Facility ID:	1185
Region:	Southwest
Lat/Long:	47.23176 / -123.13458
Brownfield Status:	Not reported
Rank Status:	2
Clean Up Siteid:	2537
Site Status:	Cleanup Started
PSI?:	Not reported
Contaminant Name:	Dioxin/Dibenzofuran Compounds
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Level
Sediment:	Confirmed Above Cleanup Level
Air:	Not reported
Bedrock:	Not reported
Responsible Unit:	Southwest

Facility ID:	1185
Region:	Southwest
Lat/Long:	47.23176 / -123.13458
Brownfield Status:	Not reported
Rank Status:	2
Clean Up Siteid:	2537
Site Status:	Cleanup Started
PSI?:	Not reported
Contaminant Name:	Metals Priority Pollutants
Ground Water:	Confirmed Above Cleanup Level
Surface Water:	Suspected
Soil:	Suspected
Sediment:	Confirmed Above Cleanup Level
Air:	Not reported
Bedrock:	Not reported
Responsible Unit:	Southwest

Facility ID:	1185
Region:	Southwest
Lat/Long:	47.23176 / -123.13458
Brownfield Status:	Not reported
Rank Status:	2

GOOSE LAKE (Continued) **1007080849**

Clean Up Siteid: 2537
Site Status: Cleanup Started
PSI?: Not reported
Contaminant Name: Polychlorinated biPhenyls (PCB)
Ground Water: Suspected
Surface Water: Not reported
Soil: Not reported
Sediment: Confirmed Above Cleanup Level
Air: Not reported
Bedrock: Not reported
Responsible Unit: Southwest

BROWNFIELDS:
Name: GOOSE LAKE
Address: NW OF SR 101
City,State,Zip: SHELTON, WA 98584
Facilty ID: 1185
Rank: 2
Cleanup Site Id: 2537
Facility Status: Cleanup Started
ISIS User Display Name: Groven, Connie
Responsible Section: Southwest
Acreage: 69
Contaminant Type: Conventional Contaminants, Inorganic
Public Funding Amt: $200,000.00
Habitat Restoration: No
Latitude: 47.23176
Longitude: -123.13458
Ground Water: Not reported
Surface Water: Not reported
Soil: Not reported
Sediment: Confirmed Above Cleanup Levels
Air: Not reported
Bedrock: Not reported

Name: GOOSE LAKE
Address: NW OF SR 101
City,State,Zip: SHELTON, WA 98584
Facilty ID: 1185
Rank: 2
Cleanup Site Id: 2537
Facility Status: Cleanup Started
ISIS User Display Name: Groven, Connie
Responsible Section: Southwest
Acreage: 69
Contaminant Type: Dioxin/Dibenzofuran Compounds
Public Funding Amt: $200,000.00
Habitat Restoration: No
Latitude: 47.23176
Longitude: -123.13458
Ground Water: Not reported
Surface Water: Not reported
Soil: Confirmed Above Cleanup Levels
Sediment: Confirmed Above Cleanup Levels
Air: Not reported
Bedrock: Not reported

GOOSE LAKE (Continued) **1007080849**

Name: GOOSE LAKE
Address: NW OF SR 101
City,State,Zip: SHELTON, WA 98584
Facilty ID: 1185
Rank: 2
Cleanup Site Id: 2537
Facility Status: Cleanup Started
ISIS User Display Name: Groven, Connie
Responsible Section: Southwest
Acreage: 69
Contaminant Type: Metals Priority Pollutants
Public Funding Amt: $200,000.00
Habitat Restoration: No
Latitude: 47.23176
Longitude: -123.13458
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Suspected
Soil: Suspected
Sediment: Confirmed Above Cleanup Levels
Air: Not reported
Bedrock: Not reported

Name: GOOSE LAKE
Address: NW OF SR 101
City,State,Zip: SHELTON, WA 98584
Facilty ID: 1185
Rank: 2
Cleanup Site Id: 2537
Facility Status: Cleanup Started
ISIS User Display Name: Groven, Connie
Responsible Section: Southwest
Acreage: 69
Contaminant Type: Polychlorinated biPhenyls (PCB)
Public Funding Amt: $200,000.00
Habitat Restoration: No
Latitude: 47.23176
Longitude: -123.13458
Ground Water: Suspected
Surface Water: Not reported
Soil: Not reported
Sediment: Confirmed Above Cleanup Levels
Air: Not reported
Bedrock: Not reported

ALLSITES:
Facility Name: GOOSE LAKE
Facility Id: 1185

Interaction: 2320
Interaction 1: A
Interaction 2: SEDIMENT
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: GOOSE LAKE
Program ID: Not reported
Date Interaction: 1900-01-01 00:00:00
Date Interaction 3: Sediments

GOOSE LAKE (Continued) **1007080849**

Latitude:	47.23175449
Longitude:	-123.134565069
Interaction:	2319
Interaction 1:	A
Interaction 2:	SCS
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	GOOSE LAKE
Program ID:	Not reported
Date Interaction:	1900-01-01 00:00:00
Date Interaction 3:	State Cleanup Site
Latitude:	47.23175449
Longitude:	-123.134565069

126
SE
> 1
1.338 mi.
7066 ft.

E 250 HIAWATHA BLVD
SHELTON, WA

WA SPILLS **S111414380**
N/A

Relative:
Lower

Actual:
241 ft.

SPILLS:

Name:	Not reported
Address:	E 250 HIAWATHA BLVD
City,State,Zip:	SHELTON, WA
Facility ID:	629484
Medium:	SOIL
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	Not reported
Material Units:	GALLON
Date Received:	09/28/2011
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

Z127 **GOOSE LAKE** **SEMS** **1000379076**
SSW **NW OF SHELTON OFF HWY 101** **WAD980723159**
> 1 **SHELTON, WA 98584**
1.341 mi.
7082 ft. **Site 2 of 3 in cluster Z**

Relative:
Lower

Actual:
237 ft.

SEMS:

Site ID:	1000957
EPA ID:	WAD980723159
Cong District:	02
FIPS Code:	53045
Latitude:	Not reported
Longitude:	Not reported
FF:	N
NPL:	Not on the NPL
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup

SEMS Detail:

Region:	10
Site ID:	1000957
EPA ID:	WAD980723159
Site Name:	GOOSE LAKE
NPL:	N
FF:	N
OU:	00
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1979-10-01 04:00:00
Finish Date:	10/1/1979 4:00:00 AM
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	10
Site ID:	1000957
EPA ID:	WAD980723159
Site Name:	GOOSE LAKE
NPL:	N
FF:	N
OU:	00
Action Code:	OO
Action Name:	SITE REASS
SEQ:	1
Start Date:	1999-06-30 04:00:00
Finish Date:	9/18/2000 4:00:00 AM
Qual:	L
Current Action Lead:	EPA Perf

Region:	10
Site ID:	1000957
EPA ID:	WAD980723159
Site Name:	GOOSE LAKE
NPL:	N
FF:	N
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	1980-04-01 05:00:00
Finish Date:	4/1/1980 5:00:00 AM

GOOSE LAKE (Continued) **1000379076**

Qual:	H
Current Action Lead:	St Perf
Region:	10
Site ID:	1000957
EPA ID:	WAD980723159
Site Name:	GOOSE LAKE
NPL:	N
FF:	N
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	1985-08-26 05:00:00
Finish Date:	8/11/1986 4:00:00 AM
Qual:	L
Current Action Lead:	St Perf
Region:	10
Site ID:	1000957
EPA ID:	WAD980723159
Site Name:	GOOSE LAKE
NPL:	N
FF:	N
OU:	00
Action Code:	VA
Action Name:	OTHR CLEANUP
SEQ:	1
Start Date:	2000-12-13 05:00:00
Finish Date:	Not reported
Qual:	L
Current Action Lead:	St Perf
Region:	10
Site ID:	1000957
EPA ID:	WAD980723159
Site Name:	GOOSE LAKE
NPL:	N
FF:	N
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	2
Start Date:	1987-10-27 05:00:00
Finish Date:	9/30/1988 4:00:00 AM
Qual:	L
Current Action Lead:	St Perf

Z128
SSW
> 1
1.341 mi.
7083 ft.

GOOSE LAKE **FINDS** **1016278734**
NW OF SHELTON OFF HWY 101 **N/A**
SHELTON, WA 98584

Site 3 of 3 in cluster Z

Relative:
Lower

Actual:
237 ft.

FINDS:

Registry ID: 110009314410

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

SUPERFUND (NON-NPL)

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

129
ESE
> 1
1.343 mi.
7090 ft.

WA317948377 - OLYMPIC MOUNTAIN MILLWORK LLC **FINDS** **1024395989**
822 E HIAWATHA BLVD **N/A**
SHELTON, WA 98584

Relative:
Higher

Actual:
247 ft.

FINDS:

Registry ID: 110070309097

Environmental Interest/Information System

OSHA ESTABLISHMENT

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AA130
South
> 1
1.348 mi.
7118 ft.

BURGERMASTER SHELL FOOD MART **FINDS** **1007071959**
3001 OLYMPIC HWY N **N/A**
SHELTON, WA 98584

Site 1 of 3 in cluster AA

Relative:
Lower

Actual:
224 ft.

FINDS:

Registry ID: 110015485795

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

BURGERMASTER SHELL FOOD MART (Continued) **1007071959**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AA131 **BURGERMASTER SHELL FOOD MART** **WA ALLSITES** **S108022203**
South **3001 OLYMPIC HWY N** **WA SPILLS** **N/A**
> 1 **SHELTON, WA 98584** **WA Financial Assurance**
1.348 mi.
7118 ft. **Site 2 of 3 in cluster AA**

Relative:
Lower

Actual:
224 ft.

ALLSITES:

Facility Name:	BURGERMASTER SHELL FOOD MART
Facility Id:	36446543
Interaction:	40649
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	DAVID M BLAIN
Program ID:	476293
Date Interaction:	1998-10-16 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.224109403
Longitude:	-123.121673508

SPILLS:

Name:	Not reported
Address:	3001 OLYMPIC HWY N
City,State,Zip:	SHELTON, WA
Facility ID:	616062
Medium:	SOIL
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	Not reported
Material Units:	Not reported
Date Received:	10/21/2009
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

WA Financial Assurance 1:

Name:	DAVID M BLAIN
Address:	3001 OLYMPIC HWY N
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	476293

BURGERMASTER SHELL FOOD MART (Continued) **S108022203**

Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	09/23/2015
Expiration Date:	10/28/2016
Address 2:	Not reported
Policy Number:	WA629405-16
Effective Date:	09/27/2015
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.224115885
Longitude:	-123.12168714
Name:	DAVID M BLAIN
Address:	3001 OLYMPIC HWY N
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	476293
Financial Resp Type:	COLONY INSURANCE COMPANY
Inception Date:	11/04/2016
Expiration Date:	10/28/2017
Address 2:	Not reported
Policy Number:	WA629405-12
Effective Date:	10/28/2016
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.224115885
Longitude:	-123.12168714

AA132 **DAVID M BLAIN** **WA UST** **U003402701**
South **3001 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.348 mi.
7118 ft. **Site 3 of 3 in cluster AA**

Relative: UST:
Lower

Facility ID:	36446543
Site Id:	476293
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.224115884980598
Decimal Longitude:	-123.12168714173799
Tank Name:	1
Tag Number:	A4519
Tank Status:	Operational
Tank Status Date:	12/10/1999
Tank Install Date:	00/16/1998
Tank Closure Date:	Not reported
Capacity Range:	20,000 to 29,999 Gallons
Tank Permit Expiration Date:	04/30/2017
Tank Upgrade Date:	10/16/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Ball Float Valve (vent line)
Tank Material:	Steel Clad with Corrosion Resistant Composite
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Not Performed

Actual:
224 ft.

DAVID M BLAIN (Continued) **U003402701**

Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Flexible Piping
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

AB133 **SHELTON MUNICIPAL AIRPORT** **FINDS** **1023392332**
West **410 W BUSINESS PARK RD** **N/A**
> 1 **SHELTON, WA 98584**
1.359 mi.
7173 ft. **Site 1 of 9 in cluster AB**

Relative: **Higher**

Actual: **301 ft.**

FINDS:

Registry ID: 110067121126

Environmental Interest/Information System
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Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AB134 **SHELTON MUNICIPAL AIRPORT** **WA CSCSL** **S118493971**
West **410 W BUSINESS PARK RD** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584** **WA ASBESTOS**
1.359 mi.
7173 ft. **Site 2 of 9 in cluster AB**

Relative: **Higher**

Actual: **301 ft.**

CSCSL:

Facility ID:	3018
Region:	Southwest
Lat/Long:	47.25026 / -123.15105
Brownfield Status:	Not reported
Rank Status:	N
Clean Up Siteid:	12954
Site Status:	Construction Complete-Performance Monitoring
PSI?:	Not reported
Contaminant Name:	Petroleum-Other
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Suspected
Sediment:	Not reported
Air:	Not reported

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

Bedrock: Not reported
Responsible Unit: Headquarters

ALLSITES:
Facility Name: SHELTON MUNICIPAL AIRPORT
Facility Id: 3018

Interaction: 116112
Interaction 1: A
Interaction 2: FUDS
Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Shelton Municipal Airport
Program ID: Not reported
Date Interaction: 1996-02-23 00:00:00
Date Interaction 3: Formerly Used Defense Sit
Latitude: 47.250255615
Longitude: -123.151034643

ASBESTOS:
Name: BUILDING #92
Address: 410 W BUSINESS PARK RD
City,State,Zip: SHELTON, WA 98584
Facility Type: Office Space
Parent ID: 0
Form ID: 82858##1359InHou989683
Notice Date: 03/19/2014
Start Date: 03/29/2014
Completion Date: 09/01/2014
Initial: 1
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: Not reported
Site Hours Start: 8:00 AM
Site Hours End: 5:00 PM
Sunday: Not reported
Monday: 1
Tuesday: 1
Wednesday: 1
Thursday: 1
Friday: 1
Saturday: Not reported
Contractor ID: 1359
Phone: 360-426-1151
Job Site CAS: Not reported
Project Form Email: brandonp@portofshelton.com
Property Owner Name: John Dobson, Exec Dir
Property Owner Agent: Brandon Palmer
Property Owner Company: Port of Shelton
Property Owner Address: 21 W Sanderson Way
Property Owner City: Shelton
Property Owner State: WA
Property Owner Zip4: 98584
Property Owner Phone: 360-426-1151

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

Job Site Room:	WWII Offices
Facility Age:	1940's
Facility Size:	1800 sq ft
Facility Remodel:	1
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	1000
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	joint compound
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	1
Other CM1 Text:	determined by contractor
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	1
Other Resp Pro Text:	determined by contractor
Comments:	Contractor to be selected after bid opening on 3/27/14. Port or Contractor will update form at that time.
Date Time Submitted:	2014-03-19 14:42:25
Submitter IP Address:	64.95.183.202

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1359
Contractor UBI:	0
Contractor Priority:	M
Contractor Cris Num:	0
Contractor Name:	In House Work
Contractor Status:	Inactive
Contact Name:	See facility owner
Contact Phone:	0
Contact Fax:	Not reported
Contractor Cert Prn Date:	Not reported
Contractor Original Date:	05/07/2002
Contractor Effective Date:	05/07/2006
Contractor Renewal Letter Date:	02/21/2007
Contractor Exp Date:	05/06/2007
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	Not reported
Contractor Street Address:	See facility owner
Contractor City:	Not reported
Contractor State:	WA
Contractor Zip:	Not reported
Contractor Phone:	Not reported
Contractor Email:	Not reported
Contractor Web Address:	Not reported
Contractor Mail Street Address:	See facility owner
Contractor Mail City:	Not reported
Contractor Mail State:	WA
Contractor Mail Zip:	Not reported
Contractor Memo:	Added record for tracking projects conducted by facility staff

Name:	Not reported
Address:	410 W BUSINESS PARK RD
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Commercial building
Parent ID:	0
Form ID:	83432##1532TACOM643230
Notice Date:	04/04/2014
Start Date:	04/14/2014
Completion Date:	04/30/2014
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:30 AM
Site Hours End:	3:30 PM
Sunday:	Not reported
Monday:	1
Tuesday:	1

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1532
Phone:	2538305945
Job Site CAS:	Ivan Guzman
Project Form Email:	pculver@tacomaabatement.com
Property Owner Name:	Port of Shelton
Property Owner Agent:	Not reported
Property Owner Company:	Tacoma Abatement Company,LLC
Property Owner Address:	21 W Sanderson WAy
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-426-1151
Job Site Room:	Not reported
Facility Age:	1970
Facility Size:	1800
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	380
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	drywall
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2014-04-04 08:36:59
Submitter IP Address:	69.10.218.22
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1532
Contractor UBI:	603144219
Contractor Priority:	M
Contractor Cris Num:	TACOMAC894PE
Contractor Name:	TACOMA ABATEMENT CO LLC
Contractor Status:	Active
Contact Name:	Adriana Head
Contact Phone:	2538305945
Contact Fax:	2532760267
Contractor Cert Prn Date:	2016-10-06 00:00:00
Contractor Original Date:	10/17/2011
Contractor Effective Date:	10/17/2011
Contractor Renewal Letter Date:	07/19/2016
Contractor Exp Date:	10/05/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	27
Contractor Street Address:	5111 S BURLINGTON WAY
Contractor City:	TACOMA
Contractor State:	WA
Contractor Zip:	98409
Contractor Phone:	2538305945
Contractor Email:	info@tacomaabatement.com
Contractor Web Address:	www.tacomaabatement.com
Contractor Mail Street Address:	5111 S BURLINGTON WAY
Contractor Mail City:	TACOMA
Contractor Mail State:	WA
Contractor Mail Zip:	98409
Contractor Memo:	Not reported

Name:	Not reported
Address:	410 W BUSINESS PARK RD
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Commercial building

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

Parent ID:	83432
Form ID:	83837##1532TACOM615592
Notice Date:	04/04/2014
Start Date:	04/14/2014
Completion Date:	04/21/2014
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:30 AM
Site Hours End:	3:30 PM
Sunday:	Not reported
Monday:	1
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	1532
Phone:	2538305945
Job Site CAS:	Ivan Guzman
Project Form Email:	pculver@tacomaabatement.com
Property Owner Name:	Port of Shelton
Property Owner Agent:	Not reported
Property Owner Company:	Tacoma Abatement Company,LLC
Property Owner Address:	21 W Sanderson WAy
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-426-1151
Job Site Room:	Not reported
Facility Age:	1970
Facility Size:	1800
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	380
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	1
Sq Ft Other Text:	drywall
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2014-04-15 10:58:54
Submitter IP Address:	69.10.218.22
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1532
Contractor UBI:	603144219
Contractor Priority:	M
Contractor Cris Num:	TACOMAC894PE
Contractor Name:	TACOMA ABATEMENT CO LLC
Contractor Status:	Active
Contact Name:	Adriana Head
Contact Phone:	2538305945
Contact Fax:	2532760267
Contractor Cert Prn Date:	2016-10-06 00:00:00
Contractor Original Date:	10/17/2011
Contractor Effective Date:	10/17/2011
Contractor Renewal Letter Date:	07/19/2016
Contractor Exp Date:	10/05/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	27
Contractor Street Address:	5111 S BURLINGTON WAY
Contractor City:	TACOMA
Contractor State:	WA

SHELTON MUNICIPAL AIRPORT (Continued) **S118493971**

Contractor Zip:	98409
Contractor Phone:	2538305945
Contractor Email:	info@tacomaabatement.com
Contractor Web Address:	www.tacomaabatement.com
Contractor Mail Street Address:	5111 S BURLINGTON WAY
Contractor Mail City:	TACOMA
Contractor Mail State:	WA
Contractor Mail Zip:	98409
Contractor Memo:	Not reported

AB135 **WA ASBESTOS** **S119169723**
West **430 W. BUSINESS PARK LOOP** **N/A**
> 1 **SHELTON, WA 98584**
1.362 mi.
7189 ft. **Site 3 of 9 in cluster AB**

Relative: **Higher**
Actual: **301 ft.**

ASBESTOS:

Name:	Not reported
Address:	430 W. BUSINESS PARK LOOP
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Commercial
Parent ID:	92073
Form ID:	92683##1402KDSEn810487
Notice Date:	10/20/2014
Start Date:	11/03/2014
Completion Date:	11/04/2014
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	7:00 a.m.
Site Hours End:	5:00 PM
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	1402
Phone:	360-249-5540
Job Site CAS:	Chris Williams
Project Form Email:	sandie@kdsenv.com
Property Owner Name:	Port of Shelton
Property Owner Agent:	Not reported
Property Owner Company:	Kamin Excavation
Property Owner Address:	21 W. Sanderson Way
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-426-1151
Job Site Room:	Not reported
Facility Age:	Unknown
Facility Size:	Unknown
Facility Remodel:	Not reported
Facility Demo:	1

(Continued) **S119169723**

Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	2400
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	1
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	1
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	This project is completed. Thank you
Date Time Submitted:	2014-11-03 11:04:43
Submitter IP Address:	173.160.217.169
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported

(Continued) **S119169723**

Certificate Status:	Not reported
Contractor:	
Contractor ID:	1402
Contractor UBI:	602458724
Contractor Priority:	L
Contractor Cris Num:	KDSENEI951BL
Contractor Name:	K D & S Environmental Inc
Contractor Status:	Active
Contact Name:	SANDIE PENNANT
Contact Phone:	3602495540
Contact Fax:	3602493475
Contractor Cert Prn Date:	2016-01-11 00:00:00
Contractor Original Date:	01/13/2005
Contractor Effective Date:	01/14/2009
Contractor Renewal Letter Date:	10/20/2016
Contractor Exp Date:	01/13/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	14
Contractor Street Address:	PO BOX 312
Contractor City:	MONTESANO
Contractor State:	WA
Contractor Zip:	98563
Contractor Phone:	3602495540
Contractor Email:	sandie@kdsenv.com
Contractor Web Address:	www.kdsenv.com
Contractor Mail Street Address:	PO BOX 312
Contractor Mail City:	MONTESANO
Contractor Mail State:	WA
Contractor Mail Zip:	98563
Contractor Memo:	email a copy once processed.

Name:	Not reported
Address:	430 W. BUSINESS PARK LOOP
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Commercial
Parent ID:	0
Form ID:	92073##1402KDSEn692847
Notice Date:	10/20/2014
Start Date:	11/03/2014
Completion Date:	11/04/2014
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	7:00 a.m.
Site Hours End:	5:00 PM
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	1402
Phone:	360-249-5540

(Continued) **S119169723**

Job Site CAS:	Chris Williams
Project Form Email:	sandie@kdsenv.com
Property Owner Name:	Port of Shelton
Property Owner Agent:	Not reported
Property Owner Company:	Kamin Excavation
Property Owner Address:	21 W. Sanderson Way
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-426-1151
Job Site Room:	Not reported
Facility Age:	Unknown
Facility Size:	Unknown
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	2400
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	1
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	1
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1

(Continued) **S119169723**

Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2014-10-20 13:27:10
Submitter IP Address:	173.160.217.169
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1402
Contractor UBI:	602458724
Contractor Priority:	L
Contractor Cris Num:	KDSENEI951BL
Contractor Name:	K D & S Environmental Inc
Contractor Status:	Active
Contact Name:	SANDIE PENNANT
Contact Phone:	3602495540
Contact Fax:	3602493475
Contractor Cert Prn Date:	2016-01-11 00:00:00
Contractor Original Date:	01/13/2005
Contractor Effective Date:	01/14/2009
Contractor Renewal Letter Date:	10/20/2016
Contractor Exp Date:	01/13/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	14
Contractor Street Address:	PO BOX 312
Contractor City:	MONTESANO
Contractor State:	WA
Contractor Zip:	98563
Contractor Phone:	3602495540
Contractor Email:	sandie@kdsenv.com
Contractor Web Address:	www.kdsenv.com
Contractor Mail Street Address:	PO BOX 312
Contractor Mail City:	MONTESANO
Contractor Mail State:	WA
Contractor Mail Zip:	98563
Contractor Memo:	email a copy once processed.

AB136 **PORT OF SHELTON** **FINDS** **1016291608**
West **450 W BUSINESS PARK RD** **N/A**
> 1 **SHELTON, WA 98584**
1.364 mi.
7203 ft. **Site 4 of 9 in cluster AB**

Relative: Higher

Actual: 302 ft.

FINDS:

Registry ID: 110011620488

PORT OF SHELTON (Continued) **1016291608**

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AB137 **PORT OF SHELTON** **FTTS** **1005777392**
West **450 W BUSINESS PARK RD** **HIST FTTS** **N/A**
> 1 **SHELTON, WA 98584**
1.364 mi.
7203 ft. **Site 5 of 9 in cluster AB**

Relative: Higher
Actual: 302 ft.

FTTS INSP:

Inspection Number:	2000091916131 1
Region:	10
Inspection Date:	09/19/00
Inspector:	HILEMAN
Violation occurred:	No
Investigation Type:	Section 6 PCB Federal Conducted
Investigation Reason:	Neutral Scheme, Region
Legislation Code:	TSCA
Facility Function:	User

HIST FTTS INSP:

Inspection Number:	2000091916131 1
Region:	10
Inspection Date:	Not reported
Inspector:	HILEMAN
Violation occurred:	No
Investigation Type:	Section 6 PCB Federal Conducted
Investigation Reason:	Neutral Scheme, Region
Legislation Code:	TSCA
Facility Function:	User

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138 **AERO CONTROLS INC SANDERSON WAY** **FINDS** **1016206202**
West **W 231 SANDERSON WAY** **N/A**
> 1 **SHELTON, WA 98584**
1.367 mi.
7216 ft.

Relative: Higher
Actual: 285 ft.

FINDS:

Registry ID: 110005374086

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air

AERO CONTROLS INC SANDERSON WAY (Continued) **1016206202**

Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AB139 **GREEN DIAMOND RESOURCE CO SHELTON GUN &** **WA HSL** **S106967137**
West **N/A**
> 1 **UPDATE, WA**
1.368 mi.
7222 ft. **Site 6 of 9 in cluster AB**

Relative: HSL:
Higher

Name:	GREEN DIAMOND RESOURCE CO SHELTON GUN &
Address:	Not reported
City,State,Zip:	UPDATE, WA
edr_fstat:	WA
edr_fzip:	Not reported
edr_fcnty:	MASON
edr_zip:	Not reported
Facility Type:	**Hazardous Sites List**
Facility Status:	Awaiting Cleanup
FSID Number:	189457
Rank:	1
Region:	SW
EDR Link ID:	189457
Region Decode:	SOUTHWEST REGIONAL OFFICE

Actual:
302 ft.

AB140 **GREEN DIAMOND RESOURCE CO SHELTON GUN &** **WA RGA HWS** **S115342741**
West **521 W BUSINESS PARK RD** **N/A**
> 1 **SHELTON, WA**
1.368 mi.
7222 ft. **Site 7 of 9 in cluster AB**

Relative: RGA HWS:
Higher

2012	GREEN DIAMOND RESOURCE CO SHELTON GUN &	521 W BUSINESS PARK RD
2011	GREEN DIAMOND RESOURCE CO SHELTON GUN &	521 W BUSINESS PARK RD
2010	GREEN DIAMOND RESOURCE CO SHELTON GUN &	521 W BUSINESS PARK RD
2009	GREEN DIAMOND RESOURCE CO SHELTON GUN &	521 W BUSINESS PARK RD
2008	GREEN DIAMOND RESOURCE CO SHELTON GUN &	521 W BUSINESS PARK RD
2007	GREEN DIAMOND RESOURCE CO SHELTON GUN &	521 W BUSINESS PARK RD
2006	GREEN DIAMOND RESOURCE CO SHELTON GUN &	521 W BUSINESS

Actual:
302 ft.

GREEN DIAMOND RESOURCE CO SHELTON GUN & (Continued) **S115342741**

PARK RD

AB141 **GREEN DIAMOND RESOURCE CO/SHELTON GUN &** **WA RGA HWS** **S115342742**
West **521 W BUSINESS PARK RD** **N/A**
> 1 **SHELTON, WA**
1.368 mi.
7222 ft. **Site 8 of 9 in cluster AB**

Relative: RGA HWS:
Higher
Actual: 2005 GREEN DIAMOND RESOURCE CO/SHELTON GUN & 521 W BUSINESS PARK RD
302 ft.

AB142 **GREEN DIAMOND RESOURCE CO SHELTON GUN &** **FINDS** **1008924647**
West **521 W BUSINESS PARK RD** **N/A**
> 1 **SHELTON, WA 98584**
1.368 mi.
7222 ft. **Site 9 of 9 in cluster AB**

Relative: FINDS:
Higher
Actual: Registry ID: 110022929205
302 ft.

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AC143 **SIMPSON COMMUNITY CREDIT UNION** **FINDS** **1007144543**
South **2948 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.374 mi.
7255 ft. **Site 1 of 2 in cluster AC**

Relative: FINDS:
Lower
Actual: Registry ID: 110015930340
222 ft.

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AC144 **SIMPSON COMMUNITY CREDIT UNION** **WA UST** **U003933232**
South **2948 OLYMPIC HWY N** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584**
1.374 mi.
7255 ft. **Site 2 of 2 in cluster AC**

Relative:
Lower

Actual:
222 ft.

UST:

Facility ID:	4324447
Site Id:	618947
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.230944000948
Decimal Longitude:	-123.12738899999999

Tank Name:	1
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	6/18/2003
Tank Install Date:	Not reported
Tank Closure Date:	08/12/2003
Capacity Range:	111 TO 1,100 Gallons
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Not reported
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	6/18/2003
Tank Install Date:	Not reported
Tank Closure Date:	08/12/2003
Capacity Range:	111 TO 1,100 Gallons
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Not reported
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported

SIMPSON COMMUNITY CREDIT UNION (Continued) **U003933232**

Tank SFC Type: Not reported
Pipe Material: Not reported
Pipe Construction: Not reported
Pipe Primary Release Detection: Not reported
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Not reported
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

ALLSITES:
Facility Name: SIMPSON COMMUNITY CREDIT UNION
Facility Id: 4324447

Interaction: 14452
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 618947
Date Interaction: 2003-06-18 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.23093849
Longitude: -123.127374069

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145 **PUD #3** **WA SPILLS** **S110628362**
NE **120 BRAMBLE LANE** **N/A**
> 1 **SHELTON, WA**
1.403 mi.
7409 ft.

Relative: **Lower**
Actual: **224 ft.**

SPILLS:
Name: PUD #3
Address: 120 BRAMBLE LANE
City,State,Zip: SHELTON, WA
Facility ID: 621906
Medium: SOIL
Material Desc: PETROLEUM - MINERAL OIL
Material Qty: 1
Material Units: GALLON
Date Received: 08/20/2010
Contact Name: UNKNOWN
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AD146 **SHELTON PORT BUSINESS PARK RD** **FINDS** **1016206267**
West **W 410 BUSINESS PARK RD** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.404 mi.
7413 ft. **Site 1 of 2 in cluster AD**

Relative:
Higher

Actual:
303 ft.

FINDS:

Registry ID: 110005382488

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1016206267
Registry ID:	110005382488
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110005382488

AE147 **MASON COUNTY** **WA UST** **U004139722**
WNW **100 PUBLIC WORKS DR** **N/A**
> 1 **SHELTON, WA 98584**
1.406 mi.
7424 ft. **Site 1 of 7 in cluster AE**

Relative:
Higher

Actual:
313 ft.

UST:

Facility ID:	12001
Site Id:	619610
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.256761665295699
Decimal Longitude:	-123.1508367843
Tank Name:	DIESEL #1
Tag Number:	A5493
Tank Status:	Operational
Tank Status Date:	8/12/2009
Tank Install Date:	00/26/2009
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	06/30/2019
Tank Upgrade Date:	Not reported

MASON COUNTY (Continued) **U004139722**

Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	UNLEAD #1
Tag Number:	A5493
Tank Status:	Operational
Tank Status Date:	8/11/2009
Tank Install Date:	00/26/2009
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	06/30/2019
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Fiberglass Reinforced Plastic
Tank Construction:	Double Wall Tank
Tank Tightness Test:	Part of Automatic Tank Gauging (ATG) System
Tank Corrosion Protection:	Corrosion Resistant
Tank Manifold:	Not reported
Tank Release Detection:	Interstitial Monitoring
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Double Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Interstitial Monitoring (or Sump Sensor)
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

AE148 **MASON CNTY CENTRAL SHOP** **RCRA-CESQG** **1014402190**
WNW **100 W PUBLIC WORKS DR** **WAH000034273**
> 1 **SHELTON, WA 98584**
1.406 mi.
7424 ft. **Site 2 of 7 in cluster AE**

Relative: RCRA-CESQG:
Higher

Date form received by agency:	01/17/2019
Facility name:	MASON CNTY CENTRAL SHOP
Facility address:	100 W PUBLIC WORKS DR SHELTON, WA 98584
EPA ID:	WAH000034273

Actual:
313 ft.

MASON CNTY CENTRAL SHOP (Continued) **1014402190**

Contact:	AISLYN GARNER
Contact address:	100 W PUBLIC WORKS DR SHELTON, WA 98584
Contact country:	US
Contact telephone:	360-427-9670
Telephone ext.:	455
Contact email:	AGARNER@CO.MASON.WA.US
EPA Region:	10
Land type:	County
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	MASON COUNTY PUBLIC WORKS
Owner/operator address:	100 W PUBLIC WORKS DR SHELTON, WA 98584
Owner/operator country:	US
Owner/operator telephone:	360-427-9670
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	12/01/2008
Owner/Op end date:	Not reported

Owner/operator name:	MASON COUNTY PUBLIC WORKS
Owner/operator address:	100 W PUBLIC WORKS DR SHELTON, WA 98584
Owner/operator country:	US
Owner/operator telephone:	360-427-9670
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	05/26/2006
Owner/Op end date:	Not reported

Owner/operator name:	MASON COUNTY PUBLIC WORKS
Owner/operator address:	100 W PUBLIC WORKS DR SHELTON, WA 98584
Owner/operator country:	US
Owner/operator telephone:	360-427-9670

MASON CNTY CENTRAL SHOP (Continued) **1014402190**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/31/2018
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/16/2018
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/24/2017
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/13/2016
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/18/2015
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/13/2014
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/13/2014
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/13/2014
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/13/2014
Site name: MASON CNTY CENTRAL SHOP

MASON CNTY CENTRAL SHOP (Continued) **1014402190**

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/22/2013
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/02/2012
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/02/2012
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/23/2011
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/27/2010
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/27/2010
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/27/2009
Site name: MASON CNTY CENTRAL SHOP
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

MASON CNTY CENTRAL SHOP (Continued) **1014402190**

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 04/29/2016
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/26/2010
Evaluation: COMPLIANCE ASSISTANCE VISIT
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

AE149 **MASON CNTY CENTRAL SHOP** **FINDS** **1011978136**
WNW **100 W PUBLIC WORKS DR** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.406 mi.
7424 ft. **Site 3 of 7 in cluster AE**

Relative: Higher

Actual: 313 ft.

FINDS:

Registry ID: 110038118266

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport,

MASON CNTY CENTRAL SHOP (Continued) **1011978136**

and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1011978136
Registry ID:	110038118266
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110038118266

AE150 **MASON CNTY CENTRAL SHOP SHELTON** **WA ALLSITES** **S109552326**
WNW **100 W PUBLIC WORKS DR** **WA MANIFEST** **N/A**
> 1 **SHELTON, WA 98584**
1.406 mi.
7424 ft. **Site 4 of 7 in cluster AE**

Relative:
Higher

Actual:
313 ft.

ALLSITES:

Facility Name:	MASON CNTY CENTRAL SHOP SHELTON
Facility Id:	1049634

Interaction:	7694
Interaction 1:	A
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Mason Cnty Central Shop
Program ID:	WAH000034273
Date Interaction:	2009-01-27 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.236004854999997
Longitude:	-123.166001341

Interaction:	123069
Interaction 1:	A
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	MASON COUNTY CENTRAL SHOP 2
Program ID:	WAH000034273
Date Interaction:	2009-04-28 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.236004854999997
Longitude:	-123.166001341

WA MANIFEST:

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008,D018,D035,D039,F001,F003,F005
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670
Operator Effective Date:	12/01/2008
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	SQG
Monthly Generation:	False

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	True
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	F001,F003,F005,D035,D018,D008,D039
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 384
Legal Effective Date:	05/26/2006

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Cyndi Ticknor
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670, ext 453
Site Contact Email:	CyndiT@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	True
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008,D018,D035,D039,F001,F003,F005
Form Comm:	Not reported
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 384
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Cyndi Ticknor
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670, ext 453
Site Contact Email:	CyndiT@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	True
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008,D018,D035,D039,F001,F003,F005
Form Comm:	Not reported
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 384
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Cyndi Ticknor
Site Contact Address:	100 W Public Works Dr

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670, ext 453
Site Contact Email:	CyndiT@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008,D018,D035,D039,F001,F003,F005
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 384
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Brian Matthews
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670, ext 453
Site Contact Email:	BrianM@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008, D018, D035, D039, F001, F003, F005
Form Comm:	Not reported
Data Year:	2013
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 450
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Brian Matthews
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670 450
Site Contact Email:	BrianM@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008, D018, D035, D039, F001, F003, F005
Form Comm:	Not reported
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 450
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Brian Matthews
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670 450
Site Contact Email:	BrianM@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	D008, D018, D035, D039, F001, F003. F005
Form Comm:	Not reported
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 450
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Charlie Butros
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670 450
Site Contact Email:	charlesb@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Form Comm:	Not reported
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 450
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Charlie Butros
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670 450
Site Contact Email:	charlesb@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	MASON CNTY CENTRAL SHOP
Address:	100 W PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	1049634
EPA ID:	WAH000034273
NAICS:	811111
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	232002101
Business Type:	Equipment Repair
Mail Name:	Mason County Public Works
Mailing Address:	100 W Public Works Dr
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Mason County Public Works
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	100 W Public Works Dr
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)427-9670 450
Legal Effective Date:	05/26/2006
Land Organization Name:	Mason County Public Works
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	100 W Public Works Dr

MASON CNTY CENTRAL SHOP SHELTON (Continued) **S109552326**

Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)427-9670 450
Operator Organization Name:	Mason County Public Works
Operator Organization Type:	County
Operator:	Not reported
Operator Address:	100 W Public Works Dr
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)427-9670 450
Operator Effective Date:	12/01/2008
Site Contact:	Charlie Butros
Site Contact Address:	100 W Public Works Dr
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)427-9670 450
Site Contact Email:	charlesb@co.mason.wa.us
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Click this hyperlink while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

AE151 **MASON COUNTY PUBLIC WORKS DR** **WA ALLSITES** **S109824256**
WNW **100 PUBLIC WORKS DR** **N/A**
> 1 **SHELTON, WA**
1.406 mi.
7424 ft. **Site 5 of 7 in cluster AE**

Relative: **Higher**

Actual: **313 ft.**

ALLSITES:

Facility Name:	MASON COUNTY PUBLIC WORKS DR
Facility Id:	12001
Interaction:	78736
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	MASON COUNTY PUBLIC WORKS DR
Program ID:	619610
Date Interaction:	2009-08-11 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.256756351999996
Longitude:	-123.150823821

AE152 **MASON COUNTY PUBLIC WORKS DR** **FINDS** **1012137093**
WNW **100 PUBLIC WORKS DR** **N/A**
> 1 **SHELTON, WA 98584**
1.406 mi.
7424 ft. **Site 6 of 7 in cluster AE**

Relative: FINDS:
Higher

Actual: Registry ID: 110039226129
313 ft.

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AE153 **MASON COUNTY** **WA Financial Assurance** **S121603322**
WNW **100 PUBLIC WORKS DR** **N/A**
> 1 **SHELTON, WA 98584**
1.406 mi.
7424 ft. **Site 7 of 7 in cluster AE**

Relative: WA Financial Assurance 1:
Higher

Actual:
313 ft.

Name:	MASON COUNTY
Address:	100 PUBLIC WORKS DR
City,State,Zip:	SHELTON, WA 98584
DOE Site ID:	619610
Financial Resp Type:	COMMERCE AND INDUSTRY INSURANCE
Inception Date:	03/27/2018
Expiration Date:	04/21/2019
Address 2:	Not reported
Policy Number:	1926399
Effective Date:	03/27/2018
Liability Limit Type:	Not reported
Compliance Method:	Not reported
Proof of Responsibility Document Flag:	Not reported
Retroactive Date:	Not reported
Latitude:	47.256761665
Longitude:	-123.15083678

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154 **WA AGR MASON 1** **FINDS** **1016302466**
SW **751A WEST FAIRGROUNDS ROAD** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.414 mi.
7467 ft.

Relative: FINDS:
Higher

Actual: Registry ID: 110012561003
272 ft.

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a

WA AGR MASON 1 (Continued) **1016302466**

means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016302466
Registry ID: 110012561003
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110012561003

AF155 **OIL CAN HENRYS SHELTON** **FINDS** **1012222246**
South **2919 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.419 mi.
7494 ft. **Site 1 of 5 in cluster AF**

Relative: **Lower**

Actual: **220 ft.**

FINDS:

Registry ID: 110040598911

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AF156
South
> 1
1.419 mi.
7494 ft.

OIL CAN HENRYS SHELTON
2919 OLYMPIC HWY N
SHELTON, WA 98584

Site 2 of 5 in cluster AF

WA ALLSITES **S110275910**
N/A

Relative:
Lower

Actual:
220 ft.

ALLSITES:

Facility Name:	OIL CAN HENRYS SHELTON
Facility Id:	10000
Interaction:	91177
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Oil Can Henrys Shelton
Program ID:	Not reported
Date Interaction:	2009-05-14 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.228430488999997
Longitude:	-123.125930071

AD157
West
> 1
1.425 mi.
7526 ft.

SHELTON PORT BUSINESS PARK RD
W 410 BUSINESS PARK RD
SHELTON, WA 98584

Site 2 of 2 in cluster AD

WA ALLSITES **1000838781**
RCRA NonGen / NLR **WAD988515805**
WA MANIFEST

Relative:
Higher

Actual:
300 ft.

ALLSITES:

Facility Name:	SHELTON PORT BUSINESS PARK RD
Facility Id:	41855348
Interaction:	43412
Interaction 1:	I
Interaction 2:	HWOTHER
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAD988515805
Date Interaction:	2003-12-31 00:00:00
Date Interaction 3:	Haz Waste Management Acti
Latitude:	47.249734490000002
Longitude:	-123.15149506100001

Interaction:	43411
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAD988515805
Date Interaction:	1992-12-16 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.249734490000002
Longitude:	-123.15149506100001

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

RCRA NonGen / NLR:
Date form received by agency: 02/27/2010
Facility name: SHELTON PORT BUSINESS PARK RD
Facility address: W 410 BUSINESS PARK RD
SHELTON, WA 98584
EPA ID: WAD988515805
Mailing address: W 21 SANDERSON WAY
SHELTON, WA 98584
Contact: AL FREY
Contact address: W 21 SANDERSON WAY
SHELTON, WA 98584
Contact country: US
Contact telephone: 360-426-1151
Contact email: ALF@PORTOFSHELTON.COM
EPA Region: 10
Land type: District
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: FREY, AL
Owner/operator address: W 21 SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PORT OF SHELTON
Owner/operator address: W 21 SANDERON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PORT OF SHELTON
Owner/operator address: W 21 SANDERSON WAY
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-1151
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Owner/Op start date: 05/03/1996
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/26/2010
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 02/26/2010
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 02/26/2010
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 01/27/2009
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 12/31/2008
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 02/01/2008
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 02/17/2007
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 02/16/2006
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 12/31/2005
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Date form received by agency: 04/21/2005
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 12/31/2004
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 01/09/2004
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 01/17/2003
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 01/17/2003
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 03/14/2002
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 01/10/2001
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/28/2000
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 02/22/1999
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Date form received by agency: 03/10/1998
Site name: SHELTON PORT BUSINESS PARK RD
Classification: Not a generator, verified

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 04/29/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

WA MANIFEST:
Name: SHELTON PORT BUSINESS PARK RD
Address: W 410 BUSINESS PARK RD
City,State,Zip: SHELTON, WA 98584
Facility Address 2: Not reported
Facility ID: 41855348
EPA ID: WAD988515805
NAICS: 333999

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601770431
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 SANDERSON WAY
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Port of Shelton
Legal Organization Type:	District
Legal Contact:	Not reported
Legal Address:	W 21 SANDERSON WAY
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	360426-1151
Legal Effective Date:	05/03/1996
Land Organization Name:	Port of Shelton
Land Organization Type:	District
Land Contact:	Not reported
Land Address:	W 21 Sanderon Way
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	District
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	SHELTON PORT BUSINESS PARK RD
Address:	W 410 BUSINESS PARK RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	41855348
EPA ID:	WAD988515805
NAICS:	92612
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2008
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601770431
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 SANDERSON WAY
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 SANDERSON WAY
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	360426-1151
Legal Effective Date:	05/03/1996
Land Organization Name:	Port of Shelton
Land Organization Type:	County

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Land Contact:	Not reported
Land Address:	W 21 Sanderon Way
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	SHELTON PORT BUSINESS PARK RD
Address:	W 410 BUSINESS PARK RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	41855348
EPA ID:	WAD988515805
NAICS:	92612
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	FALSE
Mailing Address 2:	Not reported
Treatment by Generator:	FALSE
Mixed Radioactive Waste:	FALSE
Importer of Hazardous Waste:	FALSE
Immediate Recycler:	FALSE
Treatment/Storage/Disposal/Recycling Facility:	FALSE
Generator of Dangerous Fuel Waste:	FALSE
Generator Marketing to Burner:	FALSE
Other Marketers (i.e., blender, distributor, etc.):	FALSE
Utility Boiler Burner:	FALSE

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Industry Boiler Burner:	FALSE
Industrial Furnace:	FALSE
Smelter Defferal:	FALSE
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601770431
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 SANDERSON WAY
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 SANDERSON WAY
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	360426-1151
Legal Effective Date:	05/03/1996
Land Organization Name:	Port of Shelton
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderon Way
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	FALSE
Batch Generation:	TRUE
One Time Generation:	FALSE
Transport Own Waste:	FALSE
Tranports Other Waste:	FALSE
Recycler Onsite:	FALSE
Transfer Facility:	FALSE
Other Exemption:	Not reported
UW Battery Gen:	FALSE
Used Oil Transporter:	FALSE
Used Oil Transfer Facility:	FALSE
Used Oil Processor:	FALSE
Used Oil Refiner:	FALSE
Used Oil Fuel Marketer Directs Shipments:	FALSE
Used Oil Fuel Marketer Meets Specs:	FALSE
Site Contact Address 2:	Not reported

Name: SHELTON PORT BUSINESS PARK RD

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Address:	W 410 BUSINESS PARK RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	41855348
EPA ID:	WAD988515805
NAICS:	92612
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	F
Mailing Address 2:	Not reported
Treatment by Generator:	F
Mixed Radioactive Waste:	F
Importer of Hazardous Waste:	F
Immediate Recycler:	F
Treatment/Storage/Disposal/Recycling Facility:	F
Generator of Dangerous Fuel Waste:	F
Generator Marketing to Burner:	F
Other Marketers (i.e., blender, distributor, etc.):	F
Utility Boiler Burner:	F
Industry Boiler Burner:	F
Industrial Furnace:	F
Smelter Defferal:	F
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601770431
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 SANDERSON WAY
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 SANDERSON WAY
Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	360426-1151
Legal Effective Date:	05/03/1996
Land Organization Name:	Port of Shelton
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderon Way
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	F
Batch Generation:	T
One Time Generation:	F
Transport Own Waste:	F
Tranports Other Waste:	F
Recycler Onsite:	F
Transfer Facility:	F
Other Exemption:	Not reported
UW Battery Gen:	F
Used Oil Transporter:	F
Used Oil Transfer Facility:	F
Used Oil Processor:	F
Used Oil Refiner:	F
Used Oil Fuel Marketer Directs Shipments:	F
Used Oil Fuel Marketer Meets Specs:	F
Site Contact Address 2:	Not reported

Name:	SHELTON PORT BUSINESS PARK RD
Address:	W 410 BUSINESS PARK RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	41855348
EPA ID:	WAD988515805
NAICS:	92612
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	Not reported
Permit by Rule:	No
Mailing Address 2:	Not reported
Treatment by Generator:	No
Mixed Radioactive Waste:	No
Importer of Hazardous Waste:	No
Immediate Recycler:	No
Treatment/Storage/Disposal/Recycling Facility:	No
Generator of Dangerous Fuel Waste:	No
Generator Marketing to Burner:	No
Other Marketers (i.e., blender, distributor, etc.):	No
Utility Boiler Burner:	No
Industry Boiler Burner:	No
Industrial Furnace:	No
Smelter Defferal:	No
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	601770431
Business Type:	Not reported
Mail Name:	Port of Shelton
Mailing Address:	W 21 SANDERSON WAY
Mailing City,State,Zip:	SHELTON, WA 98584
Legal Organization Name:	Port of Shelton
Legal Organization Type:	County
Legal Contact:	Not reported
Legal Address:	W 21 SANDERSON WAY

SHELTON PORT BUSINESS PARK RD (Continued) **1000838781**

Legal Address 2:	Not reported
Legal City,State,Zip:	SHELTON, WA 98584
Legal Phone Number:	360426-1151
Legal Effective Date:	05/03/1996
Land Organization Name:	Port of Shelton
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	W 21 Sanderon Way
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)426-1151
Operator Organization Name:	Not reported
Operator Organization Type:	County
Operator:	Al Frey
Operator Address:	W 21 Sanderson Way
Operator Address 2:	Not reported
Operator City,State,Zip:	SHELTON, WA 98584-1284
Operator Phone Number:	360426-1151
Operator Effective Date:	Not reported
Site Contact:	Al Frey
Site Contact Address:	W 21 Sanderson Way
Contact City,State,Zip:	SHELTON, WA 98584-1284
Site Contact Phone Number:	360426-1151
Site Contact Email:	alf@portofshelton.com
Gen Status Code:	XQG
Monthly Generation:	No
Batch Generation:	No
One Time Generation:	No
Transport Own Waste:	No
Tranports Other Waste:	No
Recycler Onsite:	No
Transfer Facility:	No
Other Exemption:	Not reported
UW Battery Gen:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Fuel Marketer Directs Shipments:	No
Used Oil Fuel Marketer Meets Specs:	No
Site Contact Address 2:	Not reported

AF158 **ADVANCED AUTOMOTIVE SERVICES INC** **FINDS** **1012309448**
South **2921 NORTHVIEW CIR** **N/A**
> 1 **SHELTON, WA 98584**
1.455 mi.
7681 ft. **Site 3 of 5 in cluster AF**

Relative: **Lower**

Actual: **222 ft.**

FINDS:

Registry ID: 110040341822

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

ADVANCED AUTOMOTIVE SERVICES INC (Continued) **1012309448**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AF159 **WA SPILLS** **S109010675**
South **2921 N VIEW CIRCLE** **N/A**
> 1 **SHELTON, WA**
1.455 mi.
7681 ft. **Site 4 of 5 in cluster AF**

Relative: SPILLS:
Lower

Name:	Not reported
Address:	2921 N VIEW CIRCLE
City,State,Zip:	SHELTON, WA
Facility ID:	603262
Medium:	Not reported
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	15
Material Units:	GALLON
Date Received:	01/14/2008
Contact Name:	UNKNOWN
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

Actual:
222 ft.

AF160 **ADVANCED AUTOMOTIVE SERVICES INC** **WA ALLSITES** **S110124063**
South **2921 NORTHVIEW CIR** **N/A**
> 1 **SHELTON, WA 98584**
1.455 mi.
7681 ft. **Site 5 of 5 in cluster AF**

Relative: ALLSITES:
Lower

Facility Name:	ADVANCED AUTOMOTIVE SERVICES INC
Facility Id:	15833
Interaction:	89778
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	advanced Automotive Services Inc
Program ID:	Not reported
Date Interaction:	2009-05-19 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.231150489000001
Longitude:	-123.12759106999999

Actual:
222 ft.

161
West
> 1
1.455 mi.
7685 ft.

SIMS VIBRATION LABORATORY INC SHELTON
121 W DEVELOPMENT RD
SHELTON, WA 98584

WA ALLSITES **S118640997**
N/A

Relative:
Higher

Actual:
299 ft.

ALLSITES:

Facility Name:	SIMS VIBRATION LABORATORY INC SHELTON
Facility Id:	8140
Interaction:	117043
Interaction 1:	A
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Sims Vibration Laboratory Inc Shelton
Program ID:	CRK000089050
Date Interaction:	2016-02-23 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.248573293
Longitude:	-123.151785502

AG162
South
> 1
1.482 mi.
7824 ft.

MASON CO PUD 3 MT VIEW SUBSTATION
350 E L ST
SHELTON, WA 98584

Site 1 of 2 in cluster AG

WA ALLSITES **S118640901**
N/A

Relative:
Lower

Actual:
222 ft.

ALLSITES:

Facility Name:	MASON CO PUD 3 MT VIEW SUBSTATION
Facility Id:	3460
Interaction:	116724
Interaction 1:	A
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Mason Co PUD 3 Mt View Substation
Program ID:	CRK000088350
Date Interaction:	2016-02-04 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.227355523
Longitude:	-123.122238681

163
SSE
> 1
1.482 mi.
7824 ft.

MASON GENERAL HOSPITAL, 901 MTN. VIEW DRIVE, SHELT
M.G. HOSP., 901 MTN. VIEW DR. SHELTON
SHELTON, WA 98584

FINDS **1007994193**
N/A

Relative:
Lower

Actual:
217 ft.

FINDS:

Registry ID: 110020791491

Environmental Interest/Information System
US EPA Air Quality System (AQS) contains ambient air pollution data

MASON GENERAL HOSPITAL, 901 MTN. VIEW DRIVE, SHELTON, WA (Continued) **1007994193**

collected by EPA, State, Local, and Tribal air pollution control agencies from thousands of monitoring stations.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AH164 **WA ASBESTOS** **S119170533**
South **534 EAST K STREET** **N/A**
> 1 **SHELTON, WA 98584**
1.494 mi.
7887 ft. **Site 1 of 3 in cluster AH**

Relative: **Lower**

Actual: **221 ft.**

ASBESTOS:

Name:	Not reported
Address:	534 EAST K STREET
City,State,Zip:	SHELTON, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	125495#857247124
Notice Date:	07/18/2018
Start Date:	06/20/2018
Completion Date:	07/27/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	ABCN00001515
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	PACIFIC NORTHWEST ENVIRONMENTA (DAMASCUS)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported

(Continued) **S119170533**

Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported
Name:	Not reported
Address:	534 EAST K STREET

(Continued) **S119170533**

City,State,Zip:	SHELTON, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	137145#109888211
Notice Date:	01/30/2019
Start Date:	06/17/2019
Completion Date:	07/12/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	(ABCN00001499)
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	ASCENDENT LLC (PACIFIC)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported

(Continued) **S119170533**

Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	4
UBI:	602142311
Notice type:	Initial
Project Type:	Mag/mudded pipe Insulation, Mastic, Other Square Footage
Supervisor:	Ryan Peach
Supervisor Phone:	(ABAS00035030)
Certificate Status:	A
Name:	Not reported
Address:	534 EAST K STREET
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Commercial
Parent ID:	0
Form ID:	119879##1317Advan996470
Notice Date:	07/26/2016
Start Date:	07/27/2016
Completion Date:	07/29/2016
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	1
Site Hours Start:	8:00 AM
Site Hours End:	4:00 PM
Sunday:	Not reported

(Continued) **S119170533**

Monday:	Not reported
Tuesday:	Not reported
Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1317
Phone:	360-357-5666
Job Site CAS:	Genaro Magana
Project Form Email:	advanceenvironmental@comcast.net
Property Owner Name:	Not reported
Property Owner Agent:	Robert Herron
Property Owner Company:	Shelton School District
Property Owner Address:	700 S 1st Street
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-426-6322
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	100
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	1
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported

(Continued) **S119170533**

Wet Methods:		1
HEPA Vacuum:		1
MANUALMETHODS	:	1
Other CM1:		Not reported
Other CM1 Text:		Not reported
Other CM2:		Not reported
Other CM2 Text:		Not reported
Half Mask APR:		Not reported
Full Face APR:		1
PAPR:		Not reported
Type C Continuous:		Not reported
Type C Pressure:		Not reported
Other Resp Pro:		Not reported
Other Resp Pro Text:		Not reported
Comments:		10-Day waiver approved per my conversation with Ryan Allen 360-902-5409 on 7/25/2016 @ 4:23 pm. TMS
Date Time Submitted:		2016-07-26 09:04:51
Submitter IP Address:		73.221.74.245
Region:		Not reported
UBI:		Not reported
Notice type:		Not reported
Project Type:		Not reported
Supervisor:		Not reported
Supervisor Phone:		Not reported
Certificate Status:		Not reported

Contractor:

Contractor ID:	1317
Contractor UBI:	602306184
Contractor Priority:	M
Contractor Cris Num:	ADVANEI972MH
Contractor Name:	Advance Environmental Inc
Contractor Status:	Active
Contact Name:	Dan Venable
Contact Phone:	3603575666
Contact Fax:	3603575665
Contractor Cert Prn Date:	2016-08-25 00:00:00
Contractor Original Date:	02/01/2001
Contractor Effective Date:	08/13/2009
Contractor Renewal Letter Date:	06/21/2016
Contractor Exp Date:	08/22/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	34
Contractor Street Address:	3620 49TH AVE SW
Contractor City:	OLYMPIA
Contractor State:	WA
Contractor Zip:	98512
Contractor Phone:	3603575666
Contractor Email:	advanceenvironmental@comcast.net
Contractor Web Address:	Not reported
Contractor Mail Street Address:	3620 49TH AVE SW
Contractor Mail City:	OLYMPIA
Contractor Mail State:	WA
Contractor Mail Zip:	98512
Contractor Memo:	Not reported

AH165 **SHELTON ELEMENTARY** **FINDS** **1024365247**
South **402 E K ST** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.496 mi.
7901 ft. **Site 2 of 3 in cluster AH**

Relative:
Lower

Actual:
221 ft.

FINDS:

Registry ID: 110070254957

Environmental Interest/Information System
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1024365247
Registry ID: 110070254957
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110070254957

AH166 **SHELTON ELEMENTARY** **WA ALLSITES** **S122493324**
South **402 E K ST** **WA NPDES** **N/A**
> 1 **SHELTON, WA 98584**
1.496 mi.
7901 ft. **Site 3 of 3 in cluster AH**

Relative:
Lower

Actual:
221 ft.

ALLSITES:
Facility Name: SHELTON ELEMENTARY
Facility Id: 51510

NPDES:
Name: SHELTON ELEMENTARY
Address: 402 E K ST
City,State,Zip: SHELTON, WA 98584
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headqarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR306764
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 07/13/2018
Days to Expiration: -625

AG167
South
> 1
1.503 mi.
7937 ft.

MASON CO PUD 3 MT VIEW SUBSTATION
350 E L ST
SHELTON, WA 98584

Site 2 of 2 in cluster AG

FINDS **1023396741**
N/A

Relative:
Lower

Actual:
222 ft.

FINDS:

Registry ID: 110067357648

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

168
WSW
> 1
1.513 mi.
7990 ft.

CERTIFIED MFG CO INC
SANDERSON FIELD
SHELTON, WA 98584

WA UST **U003355811**
WA ALLSITES **N/A**

Relative:
Higher

Actual:
271 ft.

UST:

Facility ID:	68491588
Site Id:	9205
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.232926999999997
Decimal Longitude:	-123.14773599999999
Tank Name:	1
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Steel
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported

CERTIFIED MFG CO INC (Continued) **U003355811**

Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

ALLSITES:
Facility Name: CERTIFIED MFG CO INC
Facility Id: 68491588

Interaction: 58873
Interaction 1: I
Interaction 2: UST
Ecology Program: TOXICS
Program Data: UST
Facility Alt.: Not reported
Program ID: 9205
Date Interaction: 1998-06-08 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.232921490999999
Longitude: -123.147721066

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169 South > 1 1.516 mi. 8003 ft. **HOUSE** **WA ASBESTOS** **S121366243**
2421 LAUREL ST **N/A**
SHELTON, WA 98584

Relative: Lower
Actual: 221 ft.

ASBESTOS:
Name: HOUSE
Address: 2421 LAUREL ST
City,State,Zip: SHELTON, WA 98584
Facility Type: house
Parent ID: 0
Form ID: 147931##1612EDWAR035900
Notice Date: 08/23/2017
Start Date: 08/24/2017
Completion Date: 08/24/2017
Initial: Not reported
Amended: Not reported
On Hold: Not reported
Off Hold: Not reported
Emergency: 1
Site Hours Start: 7:00 AM
Site Hours End: 3:30 PM
Sunday: Not reported
Monday: Not reported
Tuesday: Not reported
Wednesday: Not reported
Thursday: 1
Friday: Not reported
Saturday: Not reported
Contractor ID: 1612
Phone: 360-701-3562
Job Site CAS: blaine edwards
Project Form Email: edenvirollc@gmail.com
Property Owner Name: Carl Yates
Property Owner Agent: Not reported
Property Owner Company: home owner

HOUSE (Continued) **S121366243**

Property Owner Address:	2421 Laurel St
Property Owner City:	Sheton
Property Owner State:	wa
Property Owner Zip4:	98584
Property Owner Phone:	360-898-2481
Job Site Room:	kitchen
Facility Age:	1961
Facility Size:	1200sf
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	220
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported

HOUSE (Continued) **S121366243**

Other Resp Pro Text:	Not reported
Comments:	I spoke with Lyndsey Banks about the broken pipe that flooded the kitchen and she has granted the emergency permit
Date Time Submitted:	2017-08-23 05:45:27
Submitter IP Address:	216.128.110.38
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1612
Contractor UBI:	603594095
Contractor Priority:	M
Contractor Cris Num:	EDWAREL848D3
Contractor Name:	EDWARDS ENVIRONMENTAL LLC
Contractor Status:	Active
Contact Name:	BLAINE EDWARDS
Contact Phone:	3607013562
Contact Fax:	Not reported
Contractor Cert Prn Date:	2016-04-26 00:00:00
Contractor Original Date:	04/26/2016
Contractor Effective Date:	04/26/2016
Contractor Renewal Letter Date:	Not reported
Contractor Exp Date:	03/23/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	34
Contractor Street Address:	PO BOX 953
Contractor City:	TENINO
Contractor State:	WA
Contractor Zip:	98589
Contractor Phone:	Not reported
Contractor Email:	EDENVIROLLC@GMAIL.COM
Contractor Web Address:	Not reported
Contractor Mail Street Address:	PO BOX 953
Contractor Mail City:	TENINO
Contractor Mail State:	WA
Contractor Mail Zip:	98589
Contractor Memo:	Not reported

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170 SW > 1 1.519 mi. 8021 ft. **WA AGR MASON 1** **751 A W FAIRGROUNDS RD** **SHELTON, WA 98584**

WA ALLSITES **1005445315**
RCRA NonGen / NLR **WAH000015826**
WA MANIFEST

Relative: Higher

Actual: 271 ft.

ALLSITES:

Facility Name:	WA AGR MASON 1
Facility Id:	81428124
Interaction:	65824
Interaction 1:	A
Interaction 2:	HWOTHER
Ecology Program:	HAZWASTE

WA AGR MASON 1 (Continued) **1005445315**

Program Data:	TURBOWASTE
Facility Alt.:	WA AGR Mason 1
Program ID:	WAH000015826
Date Interaction:	2002-12-31 00:00:00
Date Interaction 3:	Haz Waste Management Acti
Latitude:	47.233337615000003
Longitude:	-123.14419279099999

Interaction:	65823
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAH000015826
Date Interaction:	2001-08-20 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.233337615000003
Longitude:	-123.14419279099999

RCRA NonGen / NLR:

Date form received by agency:	03/06/2018
Facility name:	WA AGR MASON 1
Facility address:	751 A W FAIRGROUNDS RD SHELTON, WA 98584
EPA ID:	WAH000015826
Mailing address:	PO BOX 42589 OLYMPIA, WA 98504
Contact:	MATT DENSLEY
Contact address:	PO BOX 42589 OLYMPIA, WA 98504
Contact country:	US
Contact telephone:	360-902-2179
Contact email:	MDENSLEY@AGR.WA.GOV
EPA Region:	10
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	WA AGR
Owner/operator address:	PO BOX 42589 OLYMPIA, WA 98504
Owner/operator country:	US
Owner/operator telephone:	360-902-2050
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	WA AGR
Owner/operator address:	PO BOX 42589

WA AGR MASON 1 (Continued) **1005445315**

	OLYMPIA, WA 98504
Owner/operator country:	US
Owner/operator telephone:	360-902-2050
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	08/20/2001
Owner/Op end date:	Not reported

Owner/operator name:	MASON COUNTY FAIRGROUNDS
Owner/operator address:	P O BOX 2286
	SHELTON, WA 98584
Owner/operator country:	US
Owner/operator telephone:	360-427-7789
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	02/23/2017
Site name:	WA AGR MASON 1
Classification:	Not a generator, verified

Date form received by agency:	02/16/2016
Site name:	WA AGR MASON 1
Classification:	Not a generator, verified

Date form received by agency:	02/25/2015
Site name:	WA AGR MASON 1
Classification:	Not a generator, verified

Date form received by agency:	02/28/2014
Site name:	WA AGR MASON 1

WA AGR MASON 1 (Continued) **1005445315**

Classification: Not a generator, verified

Date form received by agency: 02/27/2013
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/28/2012
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/28/2012
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 10/24/2011
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 10/24/2011
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 01/18/2011
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/11/2010
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/11/2010
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/10/2009
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 12/31/2008
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 01/28/2008
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 01/11/2007
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 01/24/2006
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 12/31/2005
Site name: WA AGR MASON 1
Classification: Not a generator, verified

WA AGR MASON 1 (Continued) **1005445315**

Date form received by agency: 02/28/2005
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 12/31/2004
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/12/2004
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/28/2003
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/28/2003
Site name: WA AGR MASON 1
Classification: Not a generator, verified

Date form received by agency: 02/27/2002
Site name: WA AGR MASON 1
Classification: Large Quantity Generator

Date form received by agency: 08/20/2001
Site name: WA AGR MASON 1
Classification: Large Quantity Generator

Violation Status: No violations found

WA MANIFEST:

Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported

WA AGR MASON 1 (Continued) **1005445315**

LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Not reported
Mail Name:	Not reported
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Not reported
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	State
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Not reported
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Not reported
Site Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Site Contact Phone Number:	Not reported
Site Contact Email:	Not reported
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826

WA AGR MASON 1 (Continued) **1005445315**

NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2017
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False

WA AGR MASON 1 (Continued) **1005445315**

One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2016
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds

WA AGR MASON 1 (Continued) **1005445315**

Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2015
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False

WA AGR MASON 1 (Continued) **1005445315**

Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

WA AGR MASON 1 (Continued) **1005445315**

Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2014
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589

WA AGR MASON 1 (Continued) **1005445315**

Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2013
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman

WA AGR MASON 1 (Continued) **1005445315**

Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2012
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False

WA AGR MASON 1 (Continued) **1005445315**

Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False

WA AGR MASON 1 (Continued) **1005445315**

Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported
Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2011
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589

WA AGR MASON 1 (Continued) **1005445315**

Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported
Form Comm:	Not reported
Data Year:	2010
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event

WA AGR MASON 1 (Continued) **1005445315**

Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Name:	WA AGR MASON 1
Address:	751 A W FAIRGROUNDS RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported
Facility ID:	81428124
EPA ID:	WAH000015826
NAICS:	926140
State Waste Code Desc:	Not reported
Federal Waste Code Desc:	Not reported

WA AGR MASON 1 (Continued) **1005445315**

Form Comm:	Not reported
Data Year:	2009
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	342008829
Business Type:	Pesticide Disposal Event
Mail Name:	WSDA Pesticide Disposal Program
Mailing Address:	PO Box 42589
Mailing City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Organization Name:	WA AGR
Legal Organization Type:	State
Legal Contact:	Joe Hoffman
Legal Address:	PO BOX 42589
Legal Address 2:	Not reported
Legal City,State,Zip:	OLYMPIA, WA 98504-2589
Legal Phone Number:	(360)902-2050
Legal Effective Date:	08/20/2001
Land Organization Name:	Mason County Fairgrounds
Land Organization Type:	County
Land Contact:	Not reported
Land Address:	P O Box 2286
Land City,State,Zip:	SHELTON, WA 98584
Land Phone Number:	(360)427-7789
Operator Organization Name:	WA AGR
Operator Organization Type:	State
Operator:	Joe Hoffman
Operator Address:	PO BOX 42589
Operator Address 2:	Not reported
Operator City,State,Zip:	OLYMPIA, WA 98504-2589
Operator Phone Number:	(360)902-2050
Operator Effective Date:	08/20/2001
Site Contact:	Joe Hoffman
Site Contact Address:	PO BOX 42589
Contact City,State,Zip:	OLYMPIA, WA 98504-2589
Site Contact Phone Number:	(360)902-2048
Site Contact Email:	jhoffman@agr.wa.gov
Gen Status Code:	XQG
Monthly Generation:	False
Batch Generation:	False
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False

WA AGR MASON 1 (Continued) **1005445315**

Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Click this hyperlink while viewing on your computer to access
1 additional WA MANIFEST: record(s) in the EDR Site Report.

AI171 **BONNEVILLE POWER ADMIN SHELTON SUBSTATIO** **FINDS** **1011975102**
South **2508 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.520 mi.
8026 ft. **Site 1 of 4 in cluster AI**

Relative: FINDS:
Lower

Actual: Registry ID: 110038118685
219 ft.

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access
additional FINDS: detail in the EDR Site Report.

AI172 **BONNEVILLE POWER ADMIN SHELTON SUBSTATIO** **WA RGA HWS** **S115340880**
South **2508 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA**
1.520 mi.
8026 ft. **Site 2 of 4 in cluster AI**

Relative: RGA HWS:
Lower

Actual:
219 ft.

2012	N	BONNEVILLE POWER ADMIN SHELTON SUBSTATIO	2508 OLYMPIC HWY
2011	N	BONNEVILLE POWER ADMIN SHELTON SUBSTATIO	2508 OLYMPIC HWY
2010	N	BONNEVILLE POWER ADMIN SHELTON SUBSTATIO	2508 OLYMPIC HWY
2009	N	BONNEVILLE POWER ADMIN SHELTON SUBSTATIO	2508 OLYMPIC HWY

AI173 **ERNS** **9153897**
South **2508 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA**
1.520 mi.
8026 ft. **Site 3 of 4 in cluster AI**

Relative:
Lower

Actual:
219 ft.

Incident Commons:

NRC Report #:	53897
Description of Incident:	CAPACITOR RUPTURED
Type of Incident:	FIXED
Incident Cause:	EQUIPMENT FAILURE
Incident Date Time:	1991-01-07 06:37:00
Incident DTG:	OCCURRED
Incident Location:	Not reported
Loaction Address:	2508 OLYMPIC HWY N
Location Street 1:	Not reported
Location Street 2:	Not reported
Location Nearest City:	SHELTON
Location State:	WA
Location County:	MASON
Location Zip:	Not reported
Distance From City:	Not reported
Distance Units:	Not reported
Direction From City:	Not reported
Lat Deg:	Not reported
Lat Min:	Not reported
Lat Sec:	Not reported
Lat Quad:	Not reported
Long Deg:	Not reported
Long Min:	Not reported
Long Sec:	Not reported
Long Quad:	Not reported
Location Section:	Not reported
Location Township:	Not reported
Location range:	Not reported
Potential Range:	Not reported

Incidents:

NRC Report #:	53897
Aircraft Type:	UNKNOWN
Aircraft Model:	Not reported
Aircraft ID:	Not reported
Aircraft Fuel Capacity:	Not reported
Aircraft Fuel Capacity Units:	Not reported
Aircraft Fuel on Board:	Not reported
Aircraft Fuel on Board Units:	Not reported
Aircraft Spot Number:	Not reported
Aircraft Hanger:	Not reported
Aircraft Runway Number:	Not reported
Road Mile Marker:	Not reported
Building ID:	Not reported
Type of Fixed Object:	UNKNOWN
Power Generating Facility:	U
Generating Capacity:	Not reported
Type of Fuel:	Not reported
NPDES:	Not reported
NPDES Compliance:	U
Pipeline Type:	UNKNOWN
DOT Regulated:	U
Pipeline Above Ground:	ABOVE

(Continued) **9153897**

Exposed Underwater:	U
Pipeline Covered:	U
Railroad Hotline:	N
Grade Crossing:	N
Location Subdivision:	Not reported
Railroad Milepost:	UNKNOWN
Type Vehicle Involved:	UNKNOWN
Crossing Device Type:	Not reported
Device Operational:	Y
DOT Crossing Number:	Not reported
Brake Failure:	N
Description of Tank:	Not reported
Tank Above Ground:	ABOVE
Transportable Container:	U
Tank Regulated:	U
Tank Regulated By:	Not reported
Tank ID:	Not reported
Capacity of Tank:	Not reported
Capacity of Tank Units:	Not reported
Actual Amount:	Not reported
Actual Amount Units:	Not reported
Platform Rig Name:	Not reported
Platform Letter:	Not reported
Location Area ID:	Not reported
Location Block ID:	Not reported
OCSG Number:	Not reported
OCSP Number:	Not reported
State Lease Number:	Not reported
Pier Dock Number:	Not reported
Berth Slip Number:	Not reported
Continuous Release Type:	Not reported
Initial Continuous Release No:	Not reported
Continuous Release Permit:	Not reported
Allision:	N
Type of Structure:	Not reported
Structure Name:	Not reported
Structure Operational:	Y
Airbag Deployed:	Not reported
Date Tiem Normal Service:	Not reported
Service Disruption Time:	Not reported
Service Disruption Units:	Not reported
Transit Bus Flag:	Not reported
CR Begin Date:	Not reported
CR End Date:	Not reported
CR Change Date:	Not reported
FBI Contact:	Not reported
FBI Contact Date Time:	Not reported
Sub Part C Testing Req:	XXX
Conductor Testing:	Not reported
Engineer Testing:	Not reported
Trainman Testing:	Not reported
Yard Foreman Testing:	Not reported
RCL Operator Testing:	Not reported
Brakeman Testing:	Not reported
Train Dispatcher Testing:	Not reported
Signalman Testing:	Not reported
Other Employee Testing:	Not reported

(Continued) **9153897**

Unknown Testing:	Not reported
Passenger Handling:	Not reported
Passenger Route:	XXX
Passenger Delay:	XXX

Incident Details:

NRC Report #:	53897
Fire Involved:	N
Fire Extinguished:	Not reported
Any Evacuations:	N
Number Evacuated:	Not reported
Who Evacuated:	Not reported
Radius of Evacuation:	Not reported
Any Injuries:	U
Number Injured:	Not reported
Number Hospitalized:	Not reported
Any Fatalities:	U
Number Fatalities:	Not reported
Any Damages:	N
Damage Amount:	Not reported
Air Corridor Closed:	Not reported
Air Corridor Desc:	Not reported
Air Closure Time:	Not reported
Waterway Closed:	Not reported
Waterway Desc:	Not reported
Waterway Closure Time:	Not reported
Road Closed:	Not reported
Road Desc:	Not reported
Road Closure Time:	Not reported
Closure Direction:	Not reported
Major Artery:	Not reported
Track Closed:	Not reported
Track Desc:	Not reported
Track Closure Time:	Not reported
Media Interest:	Not reported
Medium Desc:	LAND
Additional Medium Info:	SOIL
Body of Water:	Not reported
Tributary of:	Not reported
Release Secured:	Not reported
Estimated Duration of Release:	Not reported
Release rate:	Not reported
Desc Remedial Action:	USING SORBENTS AND EXCAVATING THE SOIL
State Agency on Scene:	Not reported
State Agency Report Number:	Not reported
Other Agency Notified:	Not reported
Weather Conditions:	Not reported
Air Temperature:	Not reported
Wind Speed:	Not reported
Wind Direction:	Not reported
Water Supply Contaminated:	Not reported
Sheen Size:	Not reported
Sheen Color:	Not reported
Direction of Sheen Travel:	Not reported
Sheen Odor Description:	Not reported
Wave Condition:	Not reported
Current Speed:	Not reported

(Continued) **9153897**

Current Direction:	Not reported
Water Temperature:	Not reported
Track Close Dir:	Not reported
Empl Fatality:	Not reported
Pass Fatality:	Not reported
Community Impact:	Not reported
Wind Speed Unit:	Not reported
Employee Injuries:	Not reported
Passenger Injuries:	Not reported
Occupant Fatality:	Not reported
Current Speed Unit:	Not reported
Road Closure Units:	Not reported
Track CLosure Units:	Not reported
Sheen Size Units:	Not reported
Additional Info:	Not reported
State Agency Notified:	Not reported
Federal Agency Notified:	Not reported
nearest River Mile Marker:	Not reported
Sheen Size Length:	Not reported
Sheen Size Length Units:	Not reported
Sheen Size Width:	Not reported
Sheen Size Width Units:	Not reported
Offshore:	Not reported
Duration Unit:	Not reported
Release Rate Unit:	Not reported
Release Rate Rate:	Not reported
Passengers Transferred:	UNK

Calls:

NRC Report #:	53897
Site ID:	9153897
Date Time Received:	1991-01-07 12:23:37
Date Time Complete:	1991-01-07 12:26:13
Call Type:	INC
Responsible Company:	BONNEVILLE POWER ADMIN.
Responsible Org Type:	PUBLIC UTILITY
Responsible City:	SHELTON
Responsible State:	WA
Responsible Zip:	98584
On Behalf:	Not reported
Source:	UNAVAILABLE

Material Involved:

NRC Report #:	53897
Chris Code:	PCB
Case Number:	Not reported
UN Number:	Not reported
Amount of Material:	1
Unit of Measure:	GALLON(S)
Name of Material:	POLYCHLORINATED BIPHENYLS
If Reached Water:	YES
Amount in Water:	0
Unit of Measure Reach Water:	NONE

AI174 **BONNEVILLE POWER ADMIN SHELTON SUBSTATIO** **WA CSCSL** **S107154284**
South **2508 OLYMPIC HWY N** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584** **WA SPILLS**
1.520 mi.
8026 ft. **Site 4 of 4 in cluster AI**

Relative:
Lower

Actual:
219 ft.

CSCSL:

Facility ID:	9434357
Region:	Southwest
Lat/Long:	47.226722 / -123.123778
Brownfield Status:	Not reported
Rank Status:	N
Clean Up Siteid:	1636
Site Status:	Awaiting Cleanup
PSI?:	Not reported
Contaminant Name:	Petroleum Products-Unspecified
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Level
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Responsible Unit:	Southwest

Facility ID:	9434357
Region:	Southwest
Lat/Long:	47.226722 / -123.123778
Brownfield Status:	Not reported
Rank Status:	N
Clean Up Siteid:	1636
Site Status:	Awaiting Cleanup
PSI?:	Not reported
Contaminant Name:	Polychlorinated biPhenyls (PCB)
Ground Water:	Not reported
Surface Water:	Not reported
Soil:	Confirmed Above Cleanup Level
Sediment:	Not reported
Air:	Not reported
Bedrock:	Not reported
Responsible Unit:	Southwest

ALLSITES:

Facility Name:	BONNEVILLE POWER ADMIN SHELTON SUBSTATIO
Facility Id:	9434357

Interaction:	24589
Interaction 1:	A
Interaction 2:	SCS
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	BONNEVILLE POWER ADMIN SHELTON SUBSTATIO
Program ID:	Not reported
Date Interaction:	2007-12-03 00:00:00
Date Interaction 3:	State Cleanup Site
Latitude:	47.226716488000001
Longitude:	-123.123763071

Interaction:	121124

BONNEVILLE POWER ADMIN SHELTON SUBSTATIO (Continued) **S107154284**

Interaction 1:	A
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	BPA SHELTON SUBSTATION
Program ID:	CRK000090310
Date Interaction:	2017-02-21 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.226716488000001
Longitude:	-123.123763071

SPILLS:

Name:	BONNEVILLE POWER
Address:	2508 OLYMPIC HWY N
City,State,Zip:	SHELTON, WA
Facility ID:	501139
Medium:	Not reported
Material Desc:	TRANSFORMER OIL
Material Qty:	30
Material Units:	GALLON
Date Received:	11/21/1998
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

Name:	Not reported
Address:	2508 OLYMPIC HWY N
City,State,Zip:	SHELTON, WA
Facility ID:	602368
Medium:	Not reported
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	1400
Material Units:	GALLON
Date Received:	12/03/2007
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported

BONNEVILLE POWER ADMIN SHELTON SUBSTATIO (Continued) **S107154284**

Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

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175 SW > 1 1.526 mi. 8056 ft. **SHELTON MUNICIPAL AIRPORT** **SEMS-ARCHIVE** **1003880732**
APPROX 2.5 MILES NW OF CITY **WA0001101955**
SHELTON, WA 98584

Relative: Higher
Actual: 269 ft.

SEMS Archive:
Site ID: 1001835
EPA ID: WA0001101955
Cong District: 02
FIPS Code: 53045
FF: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:
Region: 10
Site ID: 1001835
EPA ID: WA0001101955
Site Name: SHELTON MUNICIPAL AIRPORT
NPL: N
FF: N
OU: 00
Action Code: VS
Action Name: ARCH SITE
SEQ: 1
Start Date: Not reported
Finish Date: 1996-04-08 04:00:00
Qual: Not reported
Current Action Lead: EPA Perf In-Hse

Region: 10
Site ID: 1001835
EPA ID: WA0001101955
Site Name: SHELTON MUNICIPAL AIRPORT
NPL: N
FF: N
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: 1996-04-08 04:00:00
Finish Date: 1996-04-08 04:00:00
Qual: N
Current Action Lead: EPA Perf

Region: 10
Site ID: 1001835
EPA ID: WA0001101955
Site Name: SHELTON MUNICIPAL AIRPORT
NPL: N
FF: N
OU: 00
Action Code: DS

SHELTON MUNICIPAL AIRPORT (Continued) **1003880732**

Action Name:	DISCVRY
SEQ:	1
Start Date:	1995-05-23 04:00:00
Finish Date:	1995-05-23 04:00:00
Qual:	Not reported
Current Action Lead:	Fed Fac

AJ176 **MASON GENERAL HOSPITAL CAMPUS RENEWAL PROJECT** **FINDS** **1014850275**
South **901 MOUNTAIN VIEW DR** **N/A**
> 1 **SHELTON, WA 98584**
1.559 mi.
8230 ft. **Site 1 of 2 in cluster AJ**

Relative: **Lower**

Actual: **216 ft.**

FINDS:

Registry ID: 110043378056

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AJ177 **MASON GENERAL HOSPITAL** **WA ALLSITES** **S110764496**
South **901 MOUNTAIN VIEW DRIVE** **WA ASBESTOS** **N/A**
> 1 **SHELTON, WA 98584** **WA NPDES**
1.559 mi.
8230 ft. **Site 2 of 2 in cluster AJ**

Relative: **Lower**

Actual: **216 ft.**

ALLSITES:

Facility Name:	MASON GENERAL HOSPITAL CAMPUS RENEWAL PROJECT
Facility Id:	15678
Interaction:	96411
Interaction 1:	I
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Mason General Hospital Campus Renewal Project
Program ID:	WAR124855
Date Interaction:	2011-02-10 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.226934487999998
Longitude:	-123.114145073

Interaction:	128946
Interaction 1:	A
Interaction 2:	CONSTSWGP

MASON GENERAL HOSPITAL (Continued) **S110764496**

Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Mason General Hospital
Program ID:	WAR307222
Date Interaction:	2018-11-15 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.226934487999998
Longitude:	-123.114145073

Interaction:	130053
Interaction 1:	A
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	MASON GENERAL HOSPITAL
Program ID:	CRK000065360
Date Interaction:	2005-01-01 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.226934487999998
Longitude:	-123.114145073

Interaction:	115159
Interaction 1:	A
Interaction 2:	RSVP
Ecology Program:	HAZWASTE
Program Data:	RSVP
Facility Alt.:	Mason General Hospital
Program ID:	Not reported
Date Interaction:	2013-06-25 00:00:00
Date Interaction 3:	Revised Site Visit Progra
Latitude:	47.226934487999998
Longitude:	-123.114145073

ASBESTOS:

Name:	MASON GENERAL HOSPITAL
Address:	901 MOUNTAIN VIEW DRIVE
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Hospital
Parent ID:	99340
Form ID:	103559##1411Const760984
Notice Date:	04/21/2015
Start Date:	05/01/2015
Completion Date:	07/30/2015
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	1
Emergency:	Not reported
Site Hours Start:	8:00 a.m.
Site Hours End:	4:30 P.M.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1

MASON GENERAL HOSPITAL (Continued) **S110764496**

Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1411
Phone:	425-487-2618
Job Site CAS:	Rigoberto Guillen-Torres
Project Form Email:	debraz@cgius.net
Property Owner Name:	Mason General Hospital
Property Owner Agent:	Craig Chase
Property Owner Company:	Mason General Hospital
Property Owner Address:	901 Mountain Veiw Drive
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-427-3644
Job Site Room:	Passage Way
Facility Age:	1968
Facility Size:	65,000 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	1
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1

MASON GENERAL HOSPITAL (Continued) **S110764496**

Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Vinyl asbestos tile edges covered with tape resulting in encapsulating temporarily. Will need to be abated at later date. This is no longer an emergency situation.
Date Time Submitted:	2015-07-22 08:41:35
Submitter IP Address:	173.10.108.181
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1411
Contractor UBI:	602516973
Contractor Priority:	M
Contractor Cris Num:	CONSTGI953NA
Contractor Name:	Construction Group International, LLC
Contractor Status:	Active
Contact Name:	Debra Zentner
Contact Phone:	4254872618
Contact Fax:	4254872619
Contractor Cert Prn Date:	2016-07-19 00:00:00
Contractor Original Date:	08/23/2005
Contractor Effective Date:	08/07/2009
Contractor Renewal Letter Date:	05/16/2016
Contractor Exp Date:	08/10/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	17
Contractor Street Address:	19407 144TH AVE NE BLDG D
Contractor City:	WOODINVILLE
Contractor State:	WA
Contractor Zip:	98072
Contractor Phone:	4254872618
Contractor Email:	debraz@cgius.com
Contractor Web Address:	Not reported
Contractor Mail Street Address:	19407 144TH AVE NE BLDG D
Contractor Mail City:	WOODINVILLE
Contractor Mail State:	WA
Contractor Mail Zip:	98072
Contractor Memo:	Not reported

Name:	MASON GENERAL HOSPITAL
Address:	901 MOUNTAIN VIEW DRIVE
City,State,Zip:	SHELTON, WA 98584

MASON GENERAL HOSPITAL (Continued) **S110764496**

Facility Type:	Hospital
Parent ID:	99340
Form ID:	103614##1411Const954482
Notice Date:	04/21/2015
Start Date:	05/01/2015
Completion Date:	07/30/2015
Initial:	Not reported
Amended:	1
On Hold:	1
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 a.m.
Site Hours End:	4:30 P.M.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1411
Phone:	425-487-2618
Job Site CAS:	Rigoberto Guillen-Torres
Project Form Email:	debraz@cgius.net
Property Owner Name:	Mason General Hospital
Property Owner Agent:	Craig Chase
Property Owner Company:	Mason General Hospital
Property Owner Address:	901 Mountain Veiw Drive
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-427-3644
Job Site Room:	Passage Way
Facility Age:	1968
Facility Size:	65,000 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	1
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported

MASON GENERAL HOSPITAL (Continued) **S110764496**

Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Vinyl asbestos tile edges covered with tape resulting in encapsulating temporarily. Will need to be abated at later date. This is no longer an emergency situation.
Date Time Submitted:	2015-07-23 07:27:27
Submitter IP Address:	173.10.108.181
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1411
Contractor UBI:	602516973
Contractor Priority:	M
Contractor Cris Num:	CONSTGI953NA
Contractor Name:	Construction Group International, LLC
Contractor Status:	Active
Contact Name:	Debra Zentner
Contact Phone:	4254872618
Contact Fax:	4254872619
Contractor Cert Prn Date:	2016-07-19 00:00:00
Contractor Original Date:	08/23/2005
Contractor Effective Date:	08/07/2009
Contractor Renewal Letter Date:	05/16/2016
Contractor Exp Date:	08/10/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	17

MASON GENERAL HOSPITAL (Continued) **S110764496**

Contractor Street Address:	19407 144TH AVE NE BLDG D
Contractor City:	WOODINVILLE
Contractor State:	WA
Contractor Zip:	98072
Contractor Phone:	4254872618
Contractor Email:	debraz@cgius.com
Contractor Web Address:	Not reported
Contractor Mail Street Address:	19407 144TH AVE NE BLDG D
Contractor Mail City:	WOODINVILLE
Contractor Mail State:	WA
Contractor Mail Zip:	98072
Contractor Memo:	Not reported

Name:	MASON GENERAL HOSPITAL
Address:	901 MOUNTAIN VIEW DRIVE
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Hospital
Parent ID:	0
Form ID:	99340##1411Const778048
Notice Date:	04/21/2015
Start Date:	04/22/2015
Completion Date:	04/22/2015
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	1
Site Hours Start:	8:00 a.m.
Site Hours End:	4:00 P.M.
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	1
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	1411
Phone:	425-487-2618
Job Site CAS:	Jason Young
Project Form Email:	debraz@cgius.net
Property Owner Name:	Mason General Hospital
Property Owner Agent:	Craig Chase
Property Owner Company:	Mason General Hospital
Property Owner Address:	901 Mountain Veiw Drive
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-427-3644
Job Site Room:	Passage Way
Facility Age:	1968
Facility Size:	65,000 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	1
Removed:	1

MASON GENERAL HOSPITAL (Continued) **S110764496**

Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	In the course of plumbing upgrade workers disturbed 9" X 9" floor tile assumed to be ACM and need removal to eleviate potential exposure to workers and patients.
Date Time Submitted:	2015-04-21 13:16:10
Submitter IP Address:	173.10.108.181
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

MASON GENERAL HOSPITAL (Continued) **S110764496**

Contractor:

Contractor ID:	1411
Contractor UBI:	602516973
Contractor Priority:	M
Contractor Cris Num:	CONSTGI953NA
Contractor Name:	Construction Group International, LLC
Contractor Status:	Active
Contact Name:	Debra Zentner
Contact Phone:	4254872618
Contact Fax:	4254872619
Contractor Cert Prn Date:	2016-07-19 00:00:00
Contractor Original Date:	08/23/2005
Contractor Effective Date:	08/07/2009
Contractor Renewal Letter Date:	05/16/2016
Contractor Exp Date:	08/10/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	17
Contractor Street Address:	19407 144TH AVE NE BLDG D
Contractor City:	WOODINVILLE
Contractor State:	WA
Contractor Zip:	98072
Contractor Phone:	4254872618
Contractor Email:	debraz@cgius.com
Contractor Web Address:	Not reported
Contractor Mail Street Address:	19407 144TH AVE NE BLDG D
Contractor Mail City:	WOODINVILLE
Contractor Mail State:	WA
Contractor Mail Zip:	98072
Contractor Memo:	Not reported

Name:	MASON GENERAL HOSPITAL
Address:	901 MOUNTAIN VIEW DRIVE
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Hospital
Parent ID:	99340
Form ID:	99644##1411Const829839
Notice Date:	04/21/2015
Start Date:	05/01/2015
Completion Date:	07/30/2015
Initial:	Not reported
Amended:	1
On Hold:	1
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 a.m.
Site Hours End:	4:00 P.M.
Sunday:	Not reported
Monday:	1
Tuesday:	1
Wednesday:	1
Thursday:	1
Friday:	1
Saturday:	Not reported
Contractor ID:	1411
Phone:	425-487-2618
Job Site CAS:	Jason Young

MASON GENERAL HOSPITAL (Continued) **S110764496**

Project Form Email:	debraz@cgius.net
Property Owner Name:	Mason General Hospital
Property Owner Agent:	Craig Chase
Property Owner Company:	Mason General Hospital
Property Owner Address:	901 Mountain Veiw Drive
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-427-3644
Job Site Room:	Passage Way
Facility Age:	1968
Facility Size:	65,000 SF
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	1
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported

MASON GENERAL HOSPITAL (Continued) **S110764496**

PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Vinyl asbestos tile edges covered with tape resulting in encapsulating temporarily. Will need to be abated at later date. This is no longer an emergency situation.
Date Time Submitted:	2015-04-29 08:08:25
Submitter IP Address:	173.10.108.181
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1411
Contractor UBI:	602516973
Contractor Priority:	M
Contractor Cris Num:	CONSTGI953NA
Contractor Name:	Construction Group International, LLC
Contractor Status:	Active
Contact Name:	Debra Zentner
Contact Phone:	4254872618
Contact Fax:	4254872619
Contractor Cert Prn Date:	2016-07-19 00:00:00
Contractor Original Date:	08/23/2005
Contractor Effective Date:	08/07/2009
Contractor Renewal Letter Date:	05/16/2016
Contractor Exp Date:	08/10/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	17
Contractor Street Address:	19407 144TH AVE NE BLDG D
Contractor City:	WOODINVILLE
Contractor State:	WA
Contractor Zip:	98072
Contractor Phone:	4254872618
Contractor Email:	debraz@cgius.com
Contractor Web Address:	Not reported
Contractor Mail Street Address:	19407 144TH AVE NE BLDG D
Contractor Mail City:	WOODINVILLE
Contractor Mail State:	WA
Contractor Mail Zip:	98072
Contractor Memo:	Not reported

Name:	MASON GENERAL HOSPITAL
Address:	901 MOUNTAIN VIEW DR.
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Hospital
Parent ID:	0
Form ID:	107524##1411Const858995
Notice Date:	10/26/2015
Start Date:	11/06/2015
Completion Date:	11/30/2015

MASON GENERAL HOSPITAL (Continued) **S110764496**

Initial:	1
Amended:	Not reported
On Hold:	1
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	8:00 AM
Site Hours End:	4:30 PM
Sunday:	Not reported
Monday:	1
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	1
Saturday:	Not reported
Contractor ID:	1411
Phone:	425-487-2618
Job Site CAS:	Wendell Bernadas
Project Form Email:	debraz@cgius.net
Property Owner Name:	Not reported
Property Owner Agent:	Konrad Schuster
Property Owner Company:	Mason General Hospital
Property Owner Address:	PO Box 1668
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-427-3644
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	1
Facility Demo:	Not reported
Facility Repair:	1
Facility Maint:	1
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	15
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	1
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported

MASON GENERAL HOSPITAL (Continued) **S110764496**

Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	1
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	2015-10-26 14:52:08
Submitter IP Address:	173.10.108.181
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1411
Contractor UBI:	602516973
Contractor Priority:	M
Contractor Cris Num:	CONSTGI953NA
Contractor Name:	Construction Group International, LLC
Contractor Status:	Active
Contact Name:	Debra Zentner
Contact Phone:	4254872618
Contact Fax:	4254872619
Contractor Cert Prn Date:	2016-07-19 00:00:00
Contractor Original Date:	08/23/2005
Contractor Effective Date:	08/07/2009
Contractor Renewal Letter Date:	05/16/2016
Contractor Exp Date:	08/10/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	17
Contractor Street Address:	19407 144TH AVE NE BLDG D
Contractor City:	WOODINVILLE
Contractor State:	WA
Contractor Zip:	98072
Contractor Phone:	4254872618
Contractor Email:	debraz@cgius.com
Contractor Web Address:	Not reported
Contractor Mail Street Address:	19407 144TH AVE NE BLDG D

MASON GENERAL HOSPITAL (Continued) **S110764496**

Contractor Mail City: WOODINVILLE
Contractor Mail State: WA
Contractor Mail Zip: 98072
Contractor Memo: Not reported

NPDES:
Name: MASON GENERAL HOSPITAL
Address: 901 MOUNTAIN VIEW DR
City,State,Zip: SHELTON, WA 98584
Facility Status: Not reported
Facility Type: Construction SW GP
Admin Region: Headqarters
Date Issued: 11/18/2015
Latitude: Not reported
Longitude: Not reported
Permit ID: WAR307222
Permit Version: Not reported
Permit Status: Active
Permit SubStatus: Not reported
Ecology Contact: Not reported
WRIA: Not reported
Permit Expiration Date: 12/31/2020
Effective Date: 11/27/2018
Days to Expiration: -625

178
East
> 1
1.560 mi.
8238 ft.

1892 E JOHNS PRAIRIE RD
SHELTON, WA

WA SPILLS **S109395561**
N/A

Relative:
Lower

Actual:
211 ft.

SPILLS:
Name: Not reported
Address: 1892 E JOHNS PRAIRIE RD
City,State,Zip: SHELTON, WA
Facility ID: 609709
Medium: Not reported
Material Desc: PETROLEUM - MINERAL OIL
Material Qty: 11
Material Units: GALLON
Date Received: 11/24/2008
Contact Name: UNKNOWN
Incident Date: Not reported
Incident Category Type: Not reported
Incident Category: Not reported
Latitude: Not reported
Longitude: Not reported
Source Type: Not reported
Source: Not reported
Vessel Facility Name2: Not reported
Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AK179 **BELCO FOREST PRODUCTS INC** **WA ALLSITES** **1011916675**
East **1890 E JOHNS PRAIRIE RD** **FINDS** **N/A**
> 1 **SHELTON, WA 98584** **ECHO**
1.590 mi. **WA MANIFEST**
8393 ft. **Site 1 of 3 in cluster AK**

Relative:
Lower

Actual:
206 ft.

ALLSITES:

Facility Name:	BELCO FOREST PRODUCTS INC
Facility Id:	7463982
Interaction:	20781
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	BELCO FOREST PRODUCTS INC
Program ID:	WAH000033711
Date Interaction:	2008-09-24 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.249160482999997
Longitude:	-123.08627407199999

FINDS:

Registry ID: 110037370109

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

OSHA ESTABLISHMENT

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1011916675
Registry ID:	110037370109
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110037370109

WA MANIFEST:

Name:	BELCO FOREST PRODUCTS INC
Address:	1890 E JOHNS PRAIRIE RD
City,State,Zip:	SHELTON, WA 98584
Facility Address 2:	Not reported

BELCO FOREST PRODUCTS INC (Continued) **1011916675**

Facility ID:	7463982
EPA ID:	WAH000033711
NAICS:	423310
State Waste Code Desc:	W206,W209,W211
Federal Waste Code Desc:	D0001,D035
Form Comm:	Lees then 2000 pounds were generated in the year. Most as a result of site reorginization and cleanup with consolidation of operations at this site.
Data Year:	2008
Permit by Rule:	False
Mailing Address 2:	Not reported
Treatment by Generator:	False
Mixed Radioactive Waste:	False
Importer of Hazardous Waste:	False
Immediate Recycler:	False
Treatment/Storage/Disposal/Recycling Facility:	False
Generator of Dangerous Fuel Waste:	False
Generator Marketing to Burner:	False
Other Marketers (i.e., blender, distributor, etc.):	False
Utility Boiler Burner:	False
Industry Boiler Burner:	False
Industrial Furnace:	False
Smelter Defferal:	False
Universal Waste:	Not reported
Off-Specification:	Not reported
LN Address 2:	Not reported
Tax Reg #:	600433318
Business Type:	Lumber Remfg & Wholesale
Mail Name:	Belco Forest Products Inc
Mailing Address:	1890 E Johns Prairie Rd
Mailing City,State,Zip:	Shelton, WA 98584
Legal Organization Name:	Belco Forest Products Inc
Legal Organization Type:	Private
Legal Contact:	Not reported
Legal Address:	1890 E Johns Prairie Rd
Legal Address 2:	Not reported
Legal City,State,Zip:	Shelton, WA 98584
Legal Phone Number:	(360)426-8900
Legal Effective Date:	01/01/1978
Land Organization Name:	Belco Forest Products Inc
Land Organization Type:	Private
Land Contact:	Not reported
Land Address:	1890 E Johns Prairie Rd
Land City,State,Zip:	Shelton, WA 98584
Land Phone Number:	(360)426-8900
Operator Organization Name:	Belco Forest Products Inc
Operator Organization Type:	Private
Operator:	Not reported
Operator Address:	1890 E Johns Prairie Rd
Operator Address 2:	Not reported
Operator City,State,Zip:	Shelton, WA 98584
Operator Phone Number:	(360)426-8900
Operator Effective Date:	01/01/2004
Site Contact:	John Vogel
Site Contact Address:	1890 E Johns Prairie Rd
Contact City,State,Zip:	Shelton, WA 98584
Site Contact Phone Number:	(360)426-8900

BELCO FOREST PRODUCTS INC (Continued) **1011916675**

Site Contact Email:	jvogel@belcofp.com
Gen Status Code:	SQG
Monthly Generation:	False
Batch Generation:	True
One Time Generation:	False
Transport Own Waste:	False
Tranports Other Waste:	False
Recycler Onsite:	False
Transfer Facility:	False
Other Exemption:	Not reported
UW Battery Gen:	False
Used Oil Transporter:	False
Used Oil Transfer Facility:	False
Used Oil Processor:	False
Used Oil Refiner:	False
Used Oil Fuel Marketer Directs Shipments:	False
Used Oil Fuel Marketer Meets Specs:	False
Site Contact Address 2:	Not reported

Waste Stream Generated:

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W209
Description:	Latex Paint
CORb Sequence Number:	118363
Sequence Number:	2004635
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	165
Quanity Unit:	GAL
Kilograms Quanity:	624.19897073622235
Density Number:	8.3399999999999999
Density Quanity:	PPG

Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W209
Description:	Miscellaneous Waste Paint Related Material
CORb Sequence Number:	118363
Sequence Number:	2004636
Mixed Radioactive Flag:	False
Designation Code:	D

BELCO FOREST PRODUCTS INC (Continued) **1011916675**

Reported Quanity:	1250
Quanity Unit:	LB
Kilograms Quanity:	567.00000975240016
Density Number:	0
Density Quanity:	Not reported
Waste Managed Off Site:	Y
State Only Waste Code 1:	Not reported
State Only Waste Code 2:	Not reported
Report Managed On Site:	0
KG Managed On Site:	0
Generator Treatment Code:	Not reported
Permit By Rule Code:	Not reported
WCDE Residence Code:	Not reported
WCDH Origin Code:	1
WCDE On Site Code:	Not reported
WCDB Code:	W206
Description:	Waste Oil
CORb Sequence Number:	118363
Sequence Number:	2004634
Mixed Radioactive Flag:	False
Designation Code:	D
Reported Quanity:	175
Quanity Unit:	GAL
Kilograms Quanity:	662.02921138690249
Density Number:	8.3399999999999999
Density Quanity:	PPG

Shipments Send:

CORB Waste Sequence Number:	118363
Waste Sequence Number:	2004634
Sequence Number:	956620
Shipment Date:	9/30/2008
Mainfest Document ID:	205613
Reported Quanity:	175
Unit of Measure:	GAL
Kilograms Quanity:	662.029211386902
Receiving EPAID:	WAD988519419
Waste Sequence Number:	2004635
Sequence Number:	956621
Shipment Date:	10/14/2008
Mainfest Document ID:	000634981
Reported Quanity:	165
Unit of Measure:	GAL
Kilograms Quanity:	624.198970736222
Receiving EPAID:	WAH000014944
Waste Sequence Number:	2004636
Sequence Number:	956622
Shipment Date:	10/14/2008
Mainfest Document ID:	000634981
Reported Quanity:	1250
Unit of Measure:	LB
Kilograms Quanity:	567.0000097524
Receiving EPAID:	WAH000014944

BELCO FOREST PRODUCTS INC (Continued) **1011916675**

Waste Stream Off Site Mgmt:
Waste CORB Sequence Number: 118363
Waste Sequence Number: 2004636
Sequence Number: 488649
Received EPAID: WAH000014944
Managed Quanity: 1250
Kilogram Quanity: 567.00000975240016
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Sequence Number: 2004634
Sequence Number: 488647
Received EPAID: WAD988519419
Managed Quanity: 175
Kilogram Quanity: 662.02921138690249
Recycled Percentage: 0
Waste Management System Code: H141

Waste Sequence Number: 2004635
Sequence Number: 488648
Received EPAID: WAH000014944
Managed Quanity: 165
Kilogram Quanity: 624.19897073622235
Recycled Percentage: Not reported
Waste Management System Code: H141

Waste Stream EPA Code:
CORB Waste Sequence Number: 118363
Waste Sequence Number: 2004635
Sequence Number: 4292253
WCDA Code: D001

Waste Sequence Number: 2004636
Sequence Number: 4292256
WCDA Code: D001

Waste Sequence Number: 2004634
Sequence Number: 4292252
WCDA Code: D001

Waste Stream Source Code:
CORB Waste Sequence Number: 118363
Waste Sequence Number: 2004636
Sequence Number: 1
WCDD Code: G06

Waste Sequence Number: 2004635
Sequence Number: 1
WCDD Code: G06

Waste Sequence Number: 2004634
Sequence Number: 1
WCDD Code: G16

AK180
East
> 1
1.590 mi.
8393 ft.

1890 E JOHN PRAIRIE RD
SHELTON, WA

Site 2 of 3 in cluster AK

WA SPILLS **S112075176**
N/A

Relative:
Lower

Actual:
206 ft.

SPILLS:

Name:	Not reported
Address:	1890 E JOHN PRAIRIE RD
City,State,Zip:	SHELTON, WA
Facility ID:	633378
Medium:	SOIL
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	5
Material Units:	GALLON
Date Received:	04/19/2012
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

AK181
East
> 1
1.590 mi.
8393 ft.

BELCO FOREST PRODUCTS INC
1890 E JOHNS PRAIRIE RD
SHELTON, WA 98584

Site 3 of 3 in cluster AK

RCRA NonGen / NLR **1011863912**
WAH000033711

Relative:
Lower

Actual:
206 ft.

RCRA NonGen / NLR:

Date form received by agency:	03/30/2009
Facility name:	BELCO FOREST PRODUCTS INC
Facility address:	1890 E JOHNS PRAIRIE RD SHELTON, WA 98584
EPA ID:	WAH000033711
Contact:	TONY MADDOX
Contact address:	1890 E JOHNS PRAIRIE RD SHELTON, WA 98584
Contact country:	US
Contact telephone:	360-426-8900
Contact email:	TMMADDOX@BELCOFP.COM
EPA Region:	10
Land type:	Private
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	BELCO FOREST PRODUCTS INC
Owner/operator address:	1890 E JOHNS PRAIRIE RD SHELTON, WA 98584
Owner/operator country:	US

BELCO FOREST PRODUCTS INC (Continued) **1011863912**

Owner/operator telephone: 360-426-8900
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BELCO FOREST PRODUCTS INC
Owner/operator address: 1890 E JOHNS PRAIRIE RD
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-8900
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/30/2009
Site name: BELCO FOREST PRODUCTS INC
Classification: Not a generator, verified

Date form received by agency: 09/24/2008
Site name: BELCO FOREST PRODUCTS INC
Classification: Not a generator, verified

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

Facility Has Received Notices of Violations:
Regulation violated: Not reported

BELCO FOREST PRODUCTS INC (Continued) **1011863912**

Area of violation: Universal Waste - Small Quantity Handlers
Date violation determined: 03/29/2012
Date achieved compliance: 05/25/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/29/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 03/29/2012
Date achieved compliance: 03/29/2012
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/29/2012
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 12/09/2008
Date achieved compliance: 04/01/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 12/09/2008
Date achieved compliance: 04/01/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting

BELCO FOREST PRODUCTS INC (Continued) **1011863912**

Date violation determined: 12/09/2008
Date achieved compliance: 04/01/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Used Oil - Generators
Date violation determined: 12/09/2008
Date achieved compliance: 04/01/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 12/09/2008
Date achieved compliance: 04/01/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/30/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 03/29/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 03/29/2012
Evaluation lead agency: State

Evaluation date: 03/29/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Universal Waste - Small Quantity Handlers
Date achieved compliance: 05/25/2012
Evaluation lead agency: State

Evaluation date: 12/09/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/01/2009

BELCO FOREST PRODUCTS INC (Continued) **1011863912**

Evaluation lead agency: State

Evaluation date: 12/09/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 04/01/2009
Evaluation lead agency: State

Evaluation date: 12/09/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 04/01/2009
Evaluation lead agency: State

Evaluation date: 12/09/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 04/01/2009
Evaluation lead agency: State

Evaluation date: 12/09/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Generators
Date achieved compliance: 04/01/2009
Evaluation lead agency: State

182
West
> 1
1.590 mi.
8394 ft.

WA DOT SHELTON 633 **WA ALLSITES** **1007065841**
W 633 DAYTON AIRPORT RD **FINDS** **N/A**
SHELTON, WA 98584

Relative:
Higher

Actual:
306 ft.

ALLSITES:
Facility Name: WA DOT SHELTON 633
Facility Id: 74566742

Interaction: 62141
Interaction 1: A
Interaction 2: TIER2
Ecology Program: HAZWASTE
Program Data: EPCRA
Facility Alt.: Not reported
Program ID: CRK000048380
Date Interaction: 1998-01-01 00:00:00
Date Interaction 3: Emergency/Haz Chem Rpt TI
Latitude: 47.251939491999998
Longitude: -123.15470906100001

FINDS:

Registry ID: 110015424183

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air

WA DOT SHELTON 633 (Continued) **1007065841**

Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AL183 **MASON COUNTY PUBLIC WORKS** **WA ALLSITES** **S116506002**
WNW **S OF HWY 101** **N/A**
> 1 **SHELTON, WA 98584**
1.590 mi.
8395 ft. **Site 1 of 2 in cluster AL**

Relative: **Higher**
Actual: **315 ft.**

ALLSITES:

Facility Name:	MASON COUNTY PUBLIC WORKS
Facility Id:	5194
Interaction:	108682
Interaction 1:	A
Interaction 2:	CONSTSWGP
Ecology Program:	WATQUAL
Program Data:	PARIS
Facility Alt.:	Upper Mountain View Pressure Zone
Program ID:	WAR301928
Date Interaction:	2014-02-26 00:00:00
Date Interaction 3:	Construction SW GP
Latitude:	47.255428184000003
Longitude:	-123.15359879099999

AM184 **MASON COUNTY PUD #3** **WA SPILLS** **S107154889**
South **116 K ST** **N/A**
> 1 **SHELTON, WA**
1.593 mi.
8409 ft. **Site 1 of 2 in cluster AM**

Relative: **Lower**
Actual: **219 ft.**

SPILLS:

Name:	MASON COUNTY PUD #3
Address:	116 K ST
City,State,Zip:	SHELTON, WA
Facility ID:	547205
Medium:	Not reported
Material Desc:	PETROLEUM - MOTOR OIL
Material Qty:	10
Material Units:	GALLON
Date Received:	04/01/2005
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported

MASON COUNTY PUD #3 (Continued) **S107154889**

Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AL185 **UPPER MOUNTAIN VIEW PRESSURE ZONE** **FINDS** **1018314181**
WNW **S OF HWY 101** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.593 mi.
8411 ft. **Site 2 of 2 in cluster AL**

Relative: Higher

Actual: 315 ft.

FINDS:

Registry ID: 110067180339

Environmental Interest/Information System
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1018314181
Registry ID: 110067180339
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110067180339

AM186 **MASON CNTY PUD 3** **WA ALLSITES** **1001031586**
South **116 E K ST** **RCRA NonGen / NLR** **WAR000002923**
> 1 **SHELTON, WA 98584** **FINDS**
1.596 mi. **ECHO**
8428 ft. **Site 2 of 2 in cluster AM**

Relative: Lower

Actual: 219 ft.

ALLSITES:
Facility Name: MASON CNTY PUD 3
Facility Id: 45521314

Interaction: 45823
Interaction 1: I
Interaction 2: HWG
Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAR000002923
Date Interaction: 1995-09-07 00:00:00
Date Interaction 3: Hazardous Waste Generator
Latitude: 47.225464488
Longitude: -123.122765071

MASON CNTY PUD 3 (Continued) **1001031586**

RCRA NonGen / NLR:
Date form received by agency: 01/27/2005
Facility name: MASON CNTY PUD 3
Facility address: 116 E K ST
SHELTON, WA 98584
EPA ID: WAR000002923
Mailing address: PO BOX 2148
SHELTON, WA 98584
Contact: MICHELE KNAUF
Contact address: PO BOX 2148
SHELTON, WA 98584
Contact country: US
Contact telephone: 360-426-8255
Telephone ext.: 5201
Contact email: MICHELEK@MASONPUD3.ORG
EPA Region: 10
Land type: County
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: WOOD, WYLA
Owner/operator address: PO BOX 2148
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-8255
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MASON CNTY PUD 3
Owner/operator address: PO BOX 2148
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-8255
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/23/1998
Owner/Op end date: Not reported

Owner/operator name: MASON CNTY PUD 3
Owner/operator address: PO BOX 2148
SHELTON, WA 98584
Owner/operator country: US
Owner/operator telephone: 360-426-8255
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private

MASON CNTY PUD 3 (Continued) **1001031586**

Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/26/2005
Site name: MASON CNTY PUD 3
Classification: Not a generator, verified

Date form received by agency: 01/26/2005
Site name: MASON CNTY PUD 3
Classification: Not a generator, verified

Date form received by agency: 01/26/2005
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/31/2004
Site name: MASON CNTY PUD 3
Classification: Not a generator, verified

Date form received by agency: 02/13/2004
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/30/2003
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/08/2002
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/11/2001
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/15/1999
Site name: MASON CNTY PUD 3

MASON CNTY PUD 3 (Continued) **1001031586**

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/08/1999
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/23/1998
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/20/1997
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/26/1996
Site name: MASON CNTY PUD 3
Classification: Conditionally Exempt Small Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: SR - WAC 173-303-200(1)(D)
Area of violation: Generators - General
Date violation determined: 05/02/1995
Date achieved compliance: 05/05/1995
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/02/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - WAC 173-303-201(2)(A)
Area of violation: Generators - General
Date violation determined: 05/02/1995
Date achieved compliance: 05/05/1995
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/02/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: SR - WAC 173-303-210(1)
Area of violation: Generators - General
Date violation determined: 05/02/1995
Date achieved compliance: 06/30/2001
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/02/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

MASON CNTY PUD 3 (Continued) **1001031586**

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/07/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/02/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/05/1995
Evaluation lead agency: State

Evaluation date: 05/02/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/30/2001
Evaluation lead agency: State

FINDS:

Registry ID: 110005400299

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1001031586
Registry ID: 110005400299
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005400299

AN187 **UNKNOWN** **WA SPILLS** **S108277934**
South **2505 OLYMPIC HIGHWAY NORTH #200** **WA ASBESTOS** **N/A**
> 1 **SHELTON, WA**
1.612 mi.
8509 ft. **Site 1 of 2 in cluster AN**

Relative:
Lower

Actual:
220 ft.

SPILLS:

Name:	Not reported
Address:	2505 OLYMPIC HWY #200
City,State,Zip:	SHELTON, WA
Facility ID:	632953
Medium:	SOIL
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	Not reported
Material Units:	GALLON
Date Received:	03/29/2012
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

Name:	UNKNOWN
Address:	2505 OLYMPIC HIGHWAY NORTH #200
City,State,Zip:	SHELTON, WA
Facility ID:	560081
Medium:	Not reported
Material Desc:	UNKNOWN
Material Qty:	Not reported
Material Units:	Not reported
Date Received:	01/27/2007
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

ASBESTOS:

Name:	Not reported
Address:	2505 OLYMPIC HIGHWAY NORTH
City,State,Zip:	SHELTON, WA

UNKNOWN (Continued) **S108277934**

Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	123646#569967933
Notice Date:	07/17/2018
Start Date:	05/17/2018
Completion Date:	08/31/2018
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	ABCN00001411
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	CONSTRUCTION GROUP INTERNATION (WOODINVILLE)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported

UNKNOWN (Continued) **S108277934**

Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

AN188 **WA SPILLS** **S108278114**
South **2505 OLYMPIC HWY #200** **N/A**
> 1 **SHELTON, WA**
1.612 mi.
8509 ft. **Site 2 of 2 in cluster AN**

Relative: SPILLS:
Lower

Actual:
220 ft.

Name:	Not reported
Address:	2505 OLYMPIC HWY #200
City,State,Zip:	SHELTON, WA
Facility ID:	560081
Medium:	Not reported
Material Desc:	PETROLEUM - OIL OTHER
Material Qty:	Not reported
Material Units:	Not reported
Date Received:	01/12/2007
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported

(Continued) **S108278114**

Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

189
SW
> 1
1.626 mi.
8583 ft.

SANDERSON FIELD **FINDS** **1011986227**
UNKNOWN **N/A**
SHELTON, WA 00000

Relative:
Higher

Actual:
268 ft.

FINDS:

Registry ID: 110037978025

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

190
South
> 1
1.629 mi.
8600 ft.

MASON COUNTY PUD #3 **WA SPILLS** **S112075174**
116 W K STREET **N/A**
SHELTON, WA

Relative:
Lower

Actual:
217 ft.

SPILLS:

Name:	MASON COUNTY PUD #3
Address:	116 W K STREET
City,State,Zip:	SHELTON, WA
Facility ID:	633376
Medium:	SURFACE WATER-FRESH
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	15
Material Units:	GALLON
Date Received:	04/19/2012
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported

MASON COUNTY PUD #3 (Continued) **S112075174**

Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

AO191 **ACE PAVING, PLANT 3** **WA SWF/LF** **S110629878**
North **EAST 4801 BROCKDALE** **N/A**
> 1 **SHELTON, WA 98584**
1.634 mi.
8627 ft. **Site 1 of 2 in cluster AO**

Relative: **Lower**
Actual: **238 ft.**

SWF/LF:

Name:	ACE PAVING, PLANT 3
Address:	EAST 4801 BROCKDALE
City,State,Zip:	SHELTON, WA 98584
Facility ID:	624
Region:	STATE
Permit Status:	Exempt
Contact Organization:	Ace Paving Company, Inc
Contact Address1:	Po Box 4520
Contact Address2:	Not reported
Contact City:	Bremerton
Contact State:	WA
Contact Postal:	98312
Contact EMail:	paulw@acepaving.com
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Permit No:	Not reported
Phone:	360-432-3037
Operator Name:	Paul Windust
Operator Organization:	Ace Paving Company, Inc
Operator EMail:	paulw@acepaving.com
Operator Title:	Not reported
Recycle Survey Code:	6767
Ownership:	PRIVATE
Facility Type:	Recycling (exempt)
Contact Name:	Paul Windust
Contact Title:	Not reported
Year Closed:	Not reported
Open to Public Flag:	No
Website:	Not reported
Latitude:	Not reported
Longitude:	Not reported

AO192 **ACE PAVING CO INC** **WA AIRS** **S103531842**
North **E 4801 BROCKDALE RD** **N/A**
> 1 **SHELTON, WA 98584**
1.634 mi.
8627 ft. **Site 2 of 2 in cluster AO**

Relative: **Lower**
Actual: **238 ft.**

AIRS (EMI):

Year Of Info:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Facility Category Short Name:	Not reported
Facility Site Status Description:	Not reported
Ecolgy Fac ID:	Not reported

ACE PAVING CO INC (Continued) **S103531842**

Plant Name:	Not reported
Plant SIC Code:	Not reported
Plant NAICS:	Not reported
NAICS Code:	Not reported
Plant Lat/Long:	Not reported
Plant Lat/Long (dms):	Not reported
Plant UTM East:	Not reported
Plant UTM North:	Not reported
Plant UTM Zone:	Not reported
Point Process SIC:	Not reported
Point Num:	Not reported
Point NAICS:	Not reported
Lat/Long:	Not reported
Lat/Long (dms):	Not reported
Point UTM East:	Not reported
Point UTM North:	Not reported
Point UTM Zone:	Not reported
Point Desc:	Not reported
Point Comments:	Not reported
Local ID:	Not reported
Local Air Agency ID:	Not reported
Fed County Code:	Not reported
Source Number:	Not reported
Process ID:	Not reported
Release Point Id:	Not reported
Release Point Description:	Not reported
Emissions Unit Id:	Not reported
Emissions Unit Design Capacity Quantity:	Not reported
Emissions Unit Design Capacity UOM Code:	Not reported
Emissions Unit Process Id:	Not reported
Insignificant Emissions Unit Flag:	Not reported
Calculation Material Code Description:	Not reported
Calculation Parameter Quantity:	Not reported
Calculation Parameter UOM Code:	Not reported
% Sulfur Content:	Not reported
% Ash Content:	Not reported
Heat Content:	Not reported
Heat Content Numerator UOM Code:	Not reported
Heat Content Denominator UOM Code:	Not reported
PM-CON:	Not reported
Tot Suspended Partclte Emissions Estmn Code:	Not reported
PM10 Nonattainment Area:	Not reported
% Control Of Sulfur Dioxide Emissions:	Not reported
NO2 Chemical:	Not reported
% Cntrl Of Volatile Organic Compound Emissions:	Not reported
CO Nonattainment Area:	Not reported
Univsl Business ID:	Not reported
Boilers Design Capacity At A Point:	Not reported
% Of Ops Occuring During Qtr Jan-Mar:	Not reported
% Of Ops Occuring During Qtr Dec-Feb:	Not reported
% Of Ops Occuring During Qtr Apr-Jun:	Not reported
% Of Ops Occuring During Qtr Mar-May:	Not reported
% Of Ops Occuring During Qtr Jun-Aug:	Not reported
% Of Ops Occuring During Qtr Jul-Sep:	Not reported
% Of Ops Occuring During Qtr Sep-Nov:	Not reported
% Of Ops Occuring During Qtr Oct-Dec:	Not reported
# Of Hours Facility Operates Each Day:	Not reported

ACE PAVING CO INC (Continued) **S103531842**

# Of Days Facility Operates Each Week:	Not reported
# Of Weeks Facility Operates Each Year:	Not reported
Exit Temp Of A Stack Or Vent:	Not reported
% Wtr In Stack / Vent Exhaust:	Not reported
Height Of Stack:	Not reported
Diameter Of Stack:	Not reported
Air Flow From A Vent Or Stack:	Not reported
% Oxygen In Stack / Vent Exhaust:	Not reported
Flow Rate:	Not reported
Flow Unit:	Not reported
Vertical Dist Exhaust Travels From Stack/vent Outlet:	Not reported
SCC Process Desc:	Not reported
EPA Code For Throughput Unit Of Measure:	Not reported
EPA Mat Code For Throughput At Each Process:	Not reported
EPA Code For Mat Thruput Fate Desc/input/output/existing:	Not reported
Description Of Material:	Not reported
Annual Qty Of Throughput Mat:	Not reported
Maximum Rate/Amount Of Annual Throughput:	Not reported
% Of Sulfur In Fuels:	Not reported
% Of Ash In Fuels:	Not reported
Emission Unit Output Threshhold:	Not reported
Facility's Throughput Data Confidential:	Not reported
Tot Suspended Partclt Emissn Tons/Year:	Not reported
Tot Suspended Partclte Emissions Estmn Code:	Not reported
Pri Particulate Matter Cntrl Tech Code At Point/Segment:	Not reported
Sec Partciulate Matter Cntrl Tech Code At Point/segment:	Not reported
% Control Of Particulate Matter Emissions:	Not reported
Particulate Matter Emission (?10microns) Tons/Year:	Not reported
Partclte Matter Emission (?10microns) Est Code:	Not reported
Pri Prtclte Matter (?10microns) Cntrl Tech Code At Pt/Seg:	Not reported
Sec Prtclte Matter (?10microns) Cntl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Prtclte Matter (? 10microns) Emisns:	Not reported
Prticlte Matter (?2.5microns)emisins In Tons/Yr:	Not reported
Prticlte Matter Emisn (?2.5microns) Est Code:	Not reported
Pri Ptculate Matter (?2.5microns) Ctl Tech Code At Pt/Seg:	Not reported
Sec Prticlte Matter (?2.5microns) Ctl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Particulate Matter (?2.5microns) Emissions:	Not reported
Sulfur Dioxide Emissions Tons/Year:	Not reported
Sulfur Dioxide Emission Estimation Code:	Not reported
Pri Sulfur Dioxide Cntrl Tech Code At Pt/Seg:	Not reported
Secondary Sulfur Dioxide Cntrl Tech Code At Pt/Seg:	Not reported
% Control Of Sulfur Dioxide Emissions:	Not reported
Nitrous Oxides Emissions In Tons/Yr:	Not reported
Nitrous Oxides Emission Estimation Code:	Not reported
Pri Nitrous Oxides Cntrl Tech Code At Point/Segment:	Not reported
Sec Nitrous Oxide Control Tech Code At Point Segment:	Not reported
% Control Of Nitrous Oxides Emissions:	Not reported
Volatile Organic Compound Emitted Desc:	Not reported
Volatile Organic Compound Emissions In Tons/Year:	Not reported
Voltl Organic Compound Emissions Est Code:	Not reported
Pri Voltl Organic Compound Cntl Tech Code At Pt/seg:	Not reported
Sec Voltle Organic Compound Cntl Tech Code At Pt/Seg:	Not reported
% Cntrl Of Volatile Organic Compound Emissions:	Not reported
Carbon Monoxide Emissions In Tons/Year:	Not reported
Carbon Monoxide Emission Est Code:	Not reported
Pri Carbon Monoxide Cntrl Tech Code At Pt/Seg:	Not reported
Sec Carbon Monoxide Cntrl Tech Code At Pt/Seg:	Not reported

ACE PAVING CO INC (Continued) **S103531842**

% Cntrl Of Carbon Monoxide Emissions:	Not reported
Lead Emissions In Tons/Year:	Not reported
Lead Emission Estimation Code:	Not reported
PM10 Nonattainment Area:	Not reported
Ozone Nonattainment Area:	Not reported
CO Nonattainment Area:	Not reported
UTM East:	Not reported
UTM North:	Not reported
UTM Zone:	Not reported
P NH3 Control:	Not reported
NH3 tpy:	Not reported
S NH3 ctrl:	Not reported
NH3 % ctrl:	Not reported
STK ACFS:	Not reported
SCC Process Desc:	Not reported
Primary Control Device Code for SO2:	Not reported
Secondary Control Device Code for SO2:	Not reported
Insignificant Emissions Unit:	Not reported
Latitude/Longitude:	Not reported
Whether Source Is An AOP(Title V) Source:	Not reported
Control Code1:	Not reported
Control Code2:	Not reported
Control Code3:	Not reported
Control Code4:	Not reported
Control Code5:	Not reported
Control Code6:	Not reported
Facility Site Supplemental Address:	Not reported
User Defined Site Code:	Not reported
User Defined RP Identifier Code:	Not reported
Release Point Status Code Description:	Not reported
Release Point Exit Gas Velocity Measure Quantity:	Not reported
Release Point Gas Velocity UOMCode:	Not reported
Release Point Exit Gas Flow Rate Measure Quantity:	Not reported
Release Point Gas Flow Rate UOM Code:	Not reported
Release Point Exit Gas Temperature Measure Quantity:	Not reported
Water Vapor % Quantity:	Not reported
Oxygen % Quantity:	Not reported
User Defined Unit Identifier Code:	Not reported
Emissions Unit Description:	Not reported
Unit Status Code Description:	Not reported
User Defined Process Identifier Code:	Not reported
Emission Unit Process Description:	Not reported
Short Name Description:	Not reported
Actual Hours Per Period Quantity:	Not reported
Pollutant Type Code:	Not reported
Average % Emissions Quantity:	Not reported
Contact Name:	Not reported
Contact Phone:	Not reported
Contact Fax:	Not reported
Contact E-mail:	Not reported
Emissions Unit Process Status Code:	Not reported
Mailing Name:	Not reported
Mailing Address:	PO BOX 4520
Mailing City,St,Zip:	BREMERTON, WA

193
East
> 1
1.637 mi.
8644 ft.

GLENN CUSTOM MILLING
1892 JOHNS PRAIRIE RD
SHELTON, WA 98584

FINDS **1007076923**
N/A

Relative:
Lower

Actual:
204 ft.

FINDS:

Registry ID: 110015535900

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AP194
East
> 1
1.641 mi.
8665 ft.

161 JOHNS CREEK DRIVE
SHELTON, WA

Site 1 of 2 in cluster AP

WA SPILLS **S116363345**
N/A

Relative:
Lower

Actual:
206 ft.

SPILLS:

Name:	Not reported
Address:	161 JOHNS CREEK DRIVE
City,State,Zip:	SHELTON, WA
Facility ID:	647341
Medium:	UNKNOWN
Material Desc:	OTHER - SEE NOTE
Material Qty:	1
Material Units:	OTHER
Date Received:	Not reported
Contact Name:	Cambell
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

AP195 **ERNS** **2014076113**
East **161 JOHNS CREEK DR** **N/A**
> 1 **SHELTON, WA**
1.641 mi.
8665 ft. **Site 2 of 2 in cluster AP**

Relative: **Lower**

Actual: **206 ft.**

Incident Commons:

NRC Report #:	1076113
Description of Incident:	CALLER IS REPORTING A NEIGHBOR THAT POURED PAINT DOWN A DRIVEWAY.
Type of Incident:	FIXED
Incident Cause:	OTHER
Incident Date Time:	2014-03-07 12:00:00
Incident DTG:	OCCURRED
Incident Location:	Not reported
Loaction Address:	161 JOHNS CREEK DR
Location Street 1:	Not reported
Location Street 2:	Not reported
Location Nearest City:	SHELTON
Location State:	WA
Location County:	MASON
Location Zip:	Not reported
Distance From City:	Not reported
Distance Units:	Not reported
Direction From City:	Not reported
Lat Deg:	Not reported
Lat Min:	Not reported
Lat Sec:	Not reported
Lat Quad:	Not reported
Long Deg:	Not reported
Long Min:	Not reported
Long Sec:	Not reported
Long Quad:	Not reported
Location Section:	Not reported
Location Township:	Not reported
Location range:	Not reported
Potential Range:	N

Incidents:

NRC Report #:	1076113
Aircraft Type:	Not reported
Aircraft Model:	Not reported
Aircraft ID:	Not reported
Aircraft Fuel Capacity:	Not reported
Aircraft Fuel Capacity Units:	Not reported
Aircraft Fuel on Board:	Not reported
Aircraft Fuel on Board Units:	Not reported
Aircraft Spot Number:	Not reported
Aircraft Hanger:	Not reported
Aircraft Runway Number:	Not reported
Road Mile Marker:	Not reported
Building ID:	Not reported
Type of Fixed Object:	PRIVATE RESIDENCE
Power Generating Facility:	U
Generating Capacity:	Not reported
Type of Fuel:	Not reported
NPDES:	Not reported
NPDES Compliance:	U
Pipeline Type:	Not reported
DOT Regulated:	U
Pipeline Above Ground:	ABOVE

(Continued) **2014076113**

Exposed Underwater:	N
Pipeline Covered:	U
Railroad Hotline:	Not reported
Grade Crossing:	U
Location Subdivision:	Not reported
Railroad Milepost:	Not reported
Type Vehicle Involved:	Not reported
Crossing Device Type:	Not reported
Device Operational:	U
DOT Crossing Number:	Not reported
Brake Failure:	U
Description of Tank:	Not reported
Tank Above Ground:	ABOVE
Transportable Container:	U
Tank Regulated:	U
Tank Regulated By:	Not reported
Tank ID:	Not reported
Capacity of Tank:	Not reported
Capacity of Tank Units:	Not reported
Actual Amount:	Not reported
Actual Amount Units:	Not reported
Platform Rig Name:	Not reported
Platform Letter:	Not reported
Location Area ID:	Not reported
Location Block ID:	Not reported
OCSG Number:	Not reported
OCSP Number:	Not reported
State Lease Number:	Not reported
Pier Dock Number:	Not reported
Berth Slip Number:	Not reported
Continuous Release Type:	Not reported
Initial Continuous Release No:	Not reported
Continuous Release Permit:	Not reported
Allision:	U
Type of Structure:	Not reported
Structure Name:	Not reported
Structure Operational:	U
Airbag Deployed:	U
Date Tiem Normal Service:	Not reported
Service Disruption Time:	Not reported
Service Disruption Units:	Not reported
Transit Bus Flag:	Not reported
CR Begin Date:	Not reported
CR End Date:	Not reported
CR Change Date:	Not reported
FBI Contact:	Not reported
FBI Contact Date Time:	Not reported
Sub Part C Testing Req:	XXX
Conductor Testing:	Not reported
Engineer Testing:	Not reported
Trainman Testing:	Not reported
Yard Foreman Testing:	Not reported
RCL Operator Testing:	Not reported
Brakeman Testing:	Not reported
Train Dispatcher Testing:	Not reported
Signalman Testing:	Not reported
Other Employee Testing:	Not reported

(Continued) **2014076113**

Unknown Testing:	Not reported
Passenger Handling:	Not reported
Passenger Route:	XXX
Passenger Delay:	XXX

Incident Details:

NRC Report #:	1076113
Fire Involved:	N
Fire Extinguished:	U
Any Evacuations:	N
Number Evacuated:	Not reported
Who Evacuated:	Not reported
Radius of Evacuation:	Not reported
Any Injuries:	N
Number Injured:	Not reported
Number Hospitalized:	Not reported
Any Fatalities:	N
Number Fatalities:	Not reported
Any Damages:	N
Damage Amount:	Not reported
Air Corridor Closed:	N
Air Corridor Desc:	Not reported
Air Closure Time:	Not reported
Waterway Closed:	N
Waterway Desc:	Not reported
Waterway Closure Time:	Not reported
Road Closed:	N
Road Desc:	Not reported
Road Closure Time:	Not reported
Closure Direction:	Not reported
Major Artery:	N
Track Closed:	N
Track Desc:	Not reported
Track Closure Time:	Not reported
Media Interest:	UNKNOWN
Medium Desc:	LAND
Additional Medium Info:	CONCRETE
Body of Water:	Not reported
Tributary of:	Not reported
Release Secured:	U
Estimated Duration of Release:	Not reported
Release rate:	Not reported
Desc Remedial Action:	Not reported
State Agency on Scene:	Not reported
State Agency Report Number:	Not reported
Other Agency Notified:	Not reported
Weather Conditions:	Not reported
Air Temperature:	Not reported
Wind Speed:	Not reported
Wind Direction:	Not reported
Water Supply Contaminated:	U
Sheen Size:	Not reported
Sheen Color:	Not reported
Direction of Sheen Travel:	Not reported
Sheen Odor Description:	Not reported
Wave Condition:	Not reported
Current Speed:	Not reported

(Continued) **2014076113**

Current Direction:	Not reported
Water Temperature:	Not reported
Track Close Dir:	Not reported
Empl Fatality:	Not reported
Pass Fatality:	Not reported
Community Impact:	Not reported
Wind Speed Unit:	Not reported
Employee Injuries:	Not reported
Passenger Injuries:	Not reported
Occupant Fatality:	Not reported
Current Speed Unit:	Not reported
Road Closure Units:	Not reported
Track CLosure Units:	Not reported
Sheen Size Units:	Not reported
Additional Info:	Not reported
State Agency Notified:	Not reported
Federal Agency Notified:	Not reported
nearest River Mile Marker:	Not reported
Sheen Size Length:	Not reported
Sheen Size Length Units:	Not reported
Sheen Size Width:	Not reported
Sheen Size Width Units:	Not reported
Offshore:	N
Duration Unit:	Not reported
Release Rate Unit:	Not reported
Release Rate Rate:	Not reported
Passengers Transferred:	NO

Calls:

NRC Report #:	1076113
Site ID:	20141076113
Date Time Received:	2014-03-08 18:10:22
Date Time Complete:	2014-03-08 18:13:49
Call Type:	INC
Responsible Company:	Not reported
Responsible Org Type:	PRIVATE CITIZEN
Responsible City:	SHELTON
Responsible State:	WA
Responsible Zip:	Not reported
On Behalf:	Not reported
Source:	TELEPHONE

Material Involved:

NRC Report #:	1076113
Chris Code:	NCC
Case Number:	000000-00-0
UN Number:	Not reported
Amount of Material:	0
Unit of Measure:	UNKNOWN AMOUNT
Name of Material:	PAINT
If Reached Water:	NO
Amount in Water:	Not reported
Unit of Measure Reach Water:	Not reported

AQ196
SSE
> 1
1.649 mi.
8706 ft.

CANYON RIVER SHOP
SE1/4 S24 T21N RTW WM
SHELTON, WA 98584

Site 1 of 3 in cluster AQ

FINDS **1007077560**
N/A

Relative:
Higher

Actual:
272 ft.

FINDS:

Registry ID: 110015542386

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AQ197
SSE
> 1
1.649 mi.
8706 ft.

SHELTON PRINT482 11TH SUB LS425 MP25
PACIFIC DIVISION UST 9455
SHELTON, WA 98584

Site 2 of 3 in cluster AQ

FINDS **1007074046**
N/A

Relative:
Higher

Actual:
272 ft.

FINDS:

Registry ID: 110015506834

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AQ198
SSE
> 1
1.649 mi.
8706 ft.

CAMP GRISDALE
NE1/4 S31 T22N RTW WM
SHELTON, WA 98584

Site 3 of 3 in cluster AQ

FINDS **1007068656**
N/A

Relative:
Higher

Actual:
272 ft.

FINDS:

Registry ID: 110015452561

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each

CAMP GRISDALE (Continued) **1007068656**

facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AR199 **SHELTON VETERINARY HOSPITAL** **WA ALLSITES** **S110275846**
South **104 E J ST** **N/A**
> 1 **SHELTON, WA 98584**
1.658 mi.
8753 ft. **Site 1 of 6 in cluster AR**

Relative: ALLSITES:
Lower
Actual: Facility Name: SHELTON VETERINARY HOSPITAL
219 ft. Facility Id: 1960

Interaction:	91323
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	Shelton Veterinary Hospital
Program ID:	Not reported
Date Interaction:	2009-08-25 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.224872488000003
Longitude:	-123.122209072

AR200 **SHELTON VETERINARY HOSPITAL** **FINDS** **1016704509**
South **104 E J ST** **N/A**
> 1 **SHELTON, WA 98584**
1.658 mi.
8753 ft. **Site 2 of 6 in cluster AR**

Relative: FINDS:
Lower
Actual: Registry ID: 110056455991
219 ft.

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

201
South
> 1
1.667 mi.
8803 ft.

2136 LAUREL ST
SHELTON, WA

WA ASBESTOS **S123677647**
N/A

Relative:
Lower

Actual:
215 ft.

ASBESTOS:

Name:	Not reported
Address:	2136 LAUREL ST
City,State,Zip:	SHELTON, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	137377#632573185
Notice Date:	02/05/2019
Start Date:	02/20/2019
Completion Date:	02/21/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	(ABCN00001317)
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	ADVANCE ENVIRONMENTAL INC (OLYMPIA)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported

(Continued) **S123677647**

VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	4
UBI:	602306184
Notice type:	Initial
Project Type:	Other linear footage, Sheet Vinyl, Vinyl Asbestos Tile
Supervisor:	Genaro Magana
Supervisor Phone:	-2018031245
Certificate Status:	A

AS202 **WA DOT SKOKOMISH RIVER BR 101 418** **WA ALLSITES** **1001121550**
SSW **SR 101 MP 338.77** **RCRA NonGen / NLR** **WAR000009720**
> 1 **SHELTON, WA 98584**
1.668 mi.
8809 ft. **Site 1 of 2 in cluster AS**

Relative: ALLSITES:
Lower
Facility Name: WA DOT SKOKOMISH RIVER BR 101 418
Actual: Facility Id: 72915915
225 ft.

Interaction: 61031

WA DOT SKOKOMISH RIVER BR 101 418 (Continued) **1001121550**

Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAR000009720
Date Interaction:	1996-06-24 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.225144489000002
Longitude:	-123.12841507100001

RCRA NonGen / NLR:

Date form received by agency:	01/25/2000
Facility name:	WA DOT SKOKOMISH RIVER BR 101 418
Facility address:	SR 101 MP 338.77 SHELTON, WA 98584
EPA ID:	WAR000009720
Mailing address:	PO BOX 47358 OLYMPIA, WA 98504
Contact:	DOUG PIERCE
Contact address:	PO BOX 47352 OLYMPIA, WA 98504
Contact country:	US
Contact telephone:	360-705-7812
Contact email:	Not reported
EPA Region:	10
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	WA DOT FACILITIES HAZMAT
Owner/operator address:	PO BOX 47352 OLYMPIA, WA 98504
Owner/operator country:	US
Owner/operator telephone:	360-705-7812
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	WA DOT FACILITIES HAZMAT
Owner/operator address:	PO BOX 47352 OLYMPIA, WA 98504
Owner/operator country:	US
Owner/operator telephone:	360-705-7812
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	11/15/1996
Owner/Op end date:	Not reported

WA DOT SKOKOMISH RIVER BR 101 418 (Continued) **1001121550**

Owner/operator name: LOZIER, GARY L
Owner/operator address: 5720 CAPITOL BLVD
TUMWATER, WA 98504
Owner/operator country: US
Owner/operator telephone: 360-357-2653
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/24/2000
Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Not a generator, verified

Date form received by agency: 01/24/2000
Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Not a generator, verified

Date form received by agency: 01/24/2000
Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Not a generator, verified

Date form received by agency: 03/01/1999
Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Not a generator, verified

Date form received by agency: 03/06/1998
Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Not a generator, verified

Date form received by agency: 02/19/1997
Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Small Quantity Generator

Date form received by agency: 06/24/1996

WA DOT SKOKOMISH RIVER BR 101 418 (Continued) **1001121550**

Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Not a generator, verified

Date form received by agency: 06/24/1996
Site name: WA DOT SKOKOMISH RIVER BR 101 418
Classification: Small Quantity Generator

Violation Status: No violations found

AS203 **WA DOT SKOKOMISH RIVER BR 101 418** **FINDS** **1016213121**
SSW **SR 101 MP 338.77** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.669 mi.
8812 ft. **Site 2 of 2 in cluster AS**

Relative:
Lower

Actual:
225 ft.

FINDS:

Registry ID: 110006140791

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1016213121
Registry ID: 110006140791
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110006140791

AT204 **PUBLIC UTILITY DIST 3 MASON COUNTY** **WA CSCSL** **1007069235**
South **HWY 101 & K ST** **WA LUST** **N/A**
> 1 **SHELTON, WA 98584** **WA UST**
1.680 mi. **WA ALLSITES**
8869 ft. **Site 1 of 2 in cluster AT** **FINDS**

Relative:
Lower

Actual:
217 ft.

CSCSL:
Facility ID: 53171158
Region: Southwest
Lat/Long: 47.22474 / -123.12553
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 9575
Site Status: Cleanup Started
PSI?: Not reported
Contaminant Name: Benzene
Ground Water: Confirmed Above Cleanup Level
Surface Water: Not reported
Soil: Remediated-Below Cleanup Level
Sediment: Not reported
Air: Not reported

PUBLIC UTILITY DIST 3 MASON COUNTY (Continued) **1007069235**

Bedrock: Not reported
Responsible Unit: Southwest

Facility ID: 53171158
Region: Southwest
Lat/Long: 47.22474 / -123.12553
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 9575
Site Status: Cleanup Started
PSI?: Not reported
Contaminant Name: Lead
Ground Water: Not reported
Surface Water: Not reported
Soil: Below MTCA Cleanup Level After Assessment
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Southwest

Facility ID: 53171158
Region: Southwest
Lat/Long: 47.22474 / -123.12553
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 9575
Site Status: Cleanup Started
PSI?: Not reported
Contaminant Name: Other Non-Halogenated Organics
Ground Water: Confirmed Above Cleanup Level
Surface Water: Not reported
Soil: Remediated-Below Cleanup Level
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Southwest

Facility ID: 53171158
Region: Southwest
Lat/Long: 47.22474 / -123.12553
Brownfield Status: Not reported
Rank Status: N
Clean Up Siteid: 9575
Site Status: Cleanup Started
PSI?: Not reported
Contaminant Name: Petroleum-Gasoline
Ground Water: Confirmed Above Cleanup Level
Surface Water: Not reported
Soil: Remediated-Below Cleanup Level
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Southwest

LUST:
Name: MASON COUNTY PUBLIC UTILITY DISTRICT 3
Address: HWY 101 & K ST

PUBLIC UTILITY DIST 3 MASON COUNTY (Continued) **1007069235**

City,State,Zip: SHELTON, WA 98584
Facility ID: 53171158
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 9575
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: PUBLIC UTILITY DIST 3 MASON COUNTY
Response Section: Southwest
Release Date: 09/14/1995
Lust Date: 05/04/2015
Region: Southwest
Lust ID: 3949
UST ID: 12485
Contaminant Name: Petroleum-Gasoline
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.22474 / -123.12553

Name: MASON COUNTY PUBLIC UTILITY DISTRICT 3
Address: HWY 101 & K ST
City,State,Zip: SHELTON, WA 98584
Facility ID: 53171158
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 9575
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: PUBLIC UTILITY DIST 3 MASON COUNTY
Response Section: Southwest
Release Date: 09/14/1995
Lust Date: 05/04/2015
Region: Southwest
Lust ID: 3949
UST ID: 12485
Contaminant Name: Other Non-Halogenated Organics
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.22474 / -123.12553

Name: MASON COUNTY PUBLIC UTILITY DISTRICT 3
Address: HWY 101 & K ST
City,State,Zip: SHELTON, WA 98584
Facility ID: 53171158
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 9575
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: PUBLIC UTILITY DIST 3 MASON COUNTY
Response Section: Southwest
Release Date: 09/14/1995

PUBLIC UTILITY DIST 3 MASON COUNTY (Continued) **1007069235**

Lust Date: 05/04/2015
Region: Southwest
Lust ID: 3949
UST ID: 12485
Contaminant Name: Benzene
Ground Water: Confirmed Above Cleanup Levels
Surface Water: Not reported
Soil: Remediated-Below
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.22474 / -123.12553

Name: MASON COUNTY PUBLIC UTILITY DISTRICT 3
Address: HWY 101 & K ST
City,State,Zip: SHELTON, WA 98584
Facility ID: 53171158
Lust Status Type: LUST - Cleanup Started
Cleanup Site ID: 9575
Cleanup Unit Type: Upland
Process Type: Independent Action
Cleanup Unit Name: PUBLIC UTILITY DIST 3 MASON COUNTY
Response Section: Southwest
Release Date: 09/14/1995
Lust Date: 05/04/2015
Region: Southwest
Lust ID: 3949
UST ID: 12485
Contaminant Name: Lead
Ground Water: Not reported
Surface Water: Not reported
Soil: Below Cleanup Levels
Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Lat/Long: 47.22474 / -123.12553

UST:
Facility ID: 53171158
Site Id: 12485
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.224739999999997
Decimal Longitude: -123.12553

Tank Name: SHELTON #1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 8/6/1996
Tank Install Date: 00/31/1971
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: 07/01/1995
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported

PUBLIC UTILITY DIST 3 MASON COUNTY (Continued) **1007069235**

Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	SHELTON #2
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Not reported
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

ALLSITES:

Facility Name:	PUBLIC UTILITY DIST 3 MASON COUNTY
Facility Id:	53171158

Interaction:	49793
Interaction 1:	I
Interaction 2:	LUST
Ecology Program:	TOXICS
Program Data:	ISIS
Facility Alt.:	Not reported
Program ID:	12485
Date Interaction:	1995-09-14 00:00:00
Date Interaction 3:	LUST Facility
Latitude:	47.224734488999999

PUBLIC UTILITY DIST 3 MASON COUNTY (Continued) **1007069235**

Longitude:	-123.125515071
Interaction:	49794
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	12485
Date Interaction:	2000-03-20 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.224734488999999
Longitude:	-123.125515071

FINDS:

Registry ID: 110015458360

Environmental Interest/Information System

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Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

205
SSE
> 1
1.695 mi.
8948 ft.

1707 NORTHCLIFF RD
SHELTON, WA

WA SPILLS **S108010220**
N/A

Relative:
Lower

Actual:
211 ft.

SPILLS:

Name:	Not reported
Address:	1707 NORTHCLIFF RD
City,State,Zip:	SHELTON, WA
Facility ID:	554953
Medium:	Not reported
Material Desc:	SEWAGE/SLUDGE
Material Qty:	Not reported
Material Units:	Not reported
Date Received:	05/05/2006
Contact Name:	FERRIER
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported

(Continued) **S108010220**

Recovered Quantity: Not reported
Resp Party Contact: Not reported
Cause: Not reported
Cause Type: Not reported
Resp Party Name: Not reported

AU206 **HOOD CANAL COMMUNICATIONS** **FINDS** **1007062182**
South **2218 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.697 mi.
8961 ft. **Site 1 of 5 in cluster AU**

Relative: FINDS:
Lower

Actual: Registry ID: 110015387151
218 ft.

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

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AU207 **HOOD CANAL COMMUNICATIONS** **WA UST** **U003765747**
South **2218 OLYMPIC HWY N** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584**
1.697 mi.
8961 ft. **Site 2 of 5 in cluster AU**

Relative: UST:
Lower

Actual:
218 ft.

Facility ID: 97112556
Site Id: 566419
UBI: Not reported
Phone Number: Not reported
Decimal Latitude: 47.223892999999997
Decimal Longitude: -123.12165400000001

Tank Name: 1
Tag Number: Not reported
Tank Status: Removed
Tank Status Date: 4/23/2001
Tank Install Date: 00/01/1900
Tank Closure Date: Not reported
Capacity Range: Not reported
Tank Permit Expiration Date: Not reported
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Not reported
Tank Construction: Not reported
Tank Tightness Test: Not reported

HOOD CANAL COMMUNICATIONS (Continued) **U003765747**

Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	4/24/2001
Tank Install Date:	00/01/1900
Tank Closure Date:	Not reported
Capacity Range:	Not reported
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Not reported
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

ALLSITES:

Facility Name:	HOOD CANAL COMMUNICATIONS
Facility Id:	97112556

Interaction:	75159
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	566419
Date Interaction:	2001-04-24 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.223887488999999
Longitude:	-123.121639073

AT208 **PUBLIC UTILITY DISTRICT 3 MASON COUNTY** **WA ICR** **U003353490**
South **HWY 101 & K ST.** **N/A**
> 1 **SHELTON, WA 98584**
1.698 mi.
8968 ft. **Site 2 of 2 in cluster AT**

Relative: ICR:
Lower Date Ecology Received Report: 10/10/02

Actual:
220 ft.

AR209 **SHELTON TEXACO** **FINDS** **1007067877**
South **2235 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.700 mi.
8975 ft. **Site 3 of 6 in cluster AR**

Relative: FINDS:
Lower

Actual: Registry ID: 110015444740
219 ft.

Environmental Interest/Information System
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AR210 **SHELTON TEXACO** **WA UST** **U003354235**
South **2235 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.700 mi.
8975 ft. **Site 4 of 6 in cluster AR**

Relative: UST:
Lower

Actual:
219 ft.

Facility ID:	61696173
Site Id:	3720
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.224209000000002
Decimal Longitude:	-123.122528
Tank Name:	1
Tag Number:	A1442
Tank Status:	Operational
Tank Status Date:	10/8/2003
Tank Install Date:	00/30/1976
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	06/30/2019
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm

SHELTON TEXACO (Continued) **U003354235**

Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Every 5 Years
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	A1442
Tank Status:	Operational
Tank Status Date:	10/8/2003
Tank Install Date:	00/30/1976
Tank Closure Date:	Not reported
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	06/30/2019
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Every 5 Years
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	3
Tag Number:	A1442
Tank Status:	Operational
Tank Status Date:	10/8/2003
Tank Install Date:	00/15/1981
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	06/30/2019
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Steel

SHELTON TEXACO (Continued) **U003354235**

Tank Construction:	Single Wall Tank
Tank Tightness Test:	Every 5 Years
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	4
Tag Number:	A1442
Tank Status:	Operational
Tank Status Date:	10/8/2003
Tank Install Date:	00/15/1981
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	06/30/2019
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Every 5 Years
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Fiberglass
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Corrosion Resistant
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	5
Tag Number:	A1442
Tank Status:	Temporarily Closed
Tank Status Date:	10/18/2006
Tank Install Date:	00/30/1976
Tank Closure Date:	Not reported
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	06/30/2019
Tank Upgrade Date:	08/04/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Overfill Alarm
Tank Material:	Steel
Tank Construction:	Single Wall Tank

SHELTON TEXACO (Continued) **U003354235**

Tank Tightness Test:	Every 5 Years
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Automatic Line Leak Detector (ALLD)
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Impressed Current
Pipe Pumping System:	Pressurized System
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

AR211 **B & N ENTERPRISES/B P** **EDR Hist Auto** **1020302707**
South **2235 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.700 mi.
8975 ft. **Site 5 of 6 in cluster AR**

Relative: EDR Hist Auto
Lower

Actual:
219 ft.

Year:	Name:	Type:
1998	B & N ENTERPRISES/BP	Gasoline Service Stations
1999	B & N ENTERPRISES/BP	Gasoline Service Stations
2000	B & N ENTERPRISES/B P	Gasoline Service Stations
2001	B & N ENTERPRISES/B P	Gasoline Service Stations
2002	B & N ENTERPRISES/B P	Gasoline Service Stations
2003	OLYMPIC GASCO	Gasoline Service Stations
2003	B & N ENTERPRISES/B P	Gasoline Service Stations
2004	B & N ENTERPRISES/B P	Gasoline Service Stations
2004	OLYMPIC GASCO	Gasoline Service Stations
2005	OLYMPIC GASCO	Gasoline Service Stations
2005	B & N ENTERPRISES/B P	Gasoline Service Stations
2006	SHELTON MOBIL	Gasoline Service Stations
2006	OLYMPIC GASCO	Gasoline Service Stations
2007	OLYMPIC GASCO	Gasoline Service Stations
2007	SHELTON MOBIL	Gasoline Service Stations
2008	SHELTON MOBIL	Gasoline Service Stations
2009	SHELTON MOBIL	Gasoline Service Stations
2010	SHELTON MOBIL	Gasoline Service Stations

AR212 **SHELTON TEXACO** **WA ALLSITES** **S108024229**
South **2235 OLYMPIC HWY N** **WA Financial Assurance** **N/A**
> 1 **SHELTON, WA 98584**
1.700 mi.
8975 ft. **Site 6 of 6 in cluster AR**

Relative: ALLSITES:
Lower

Actual:
219 ft.

Facility Name:	SHELTON TEXACO
Facility Id:	61696173
Interaction:	54607
Interaction 1:	A
Interaction 2:	UST
Ecology Program:	TOXICS

SHELTON TEXACO (Continued) **S108024229**

Program Data: UST
Facility Alt.: Not reported
Program ID: 3720
Date Interaction: 1976-05-30 00:00:00
Date Interaction 3: Underground Storage Tank
Latitude: 47.224202886999997
Longitude: -123.122511612

WA Financial Assurance 1:
Name: SHELTON TEXACO
Address: 2235 OLYMPIC HWY N
City,State,Zip: SHELTON, WA 98584
DOE Site ID: 3720
Financial Resp Type: GREAT AMERICAN INSURANCE
Inception Date: 01/11/2015
Expiration Date: 01/11/2017
Address 2: Not reported
Policy Number: BTA 9988857-05
Effective Date: 01/11/2015
Liability Limit Type: Non-mktg, > 100 tanks, < 10k gals; 500k per occurence, 2m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: Not reported
Latitude: 47.224209
Longitude: -123.122528

Name: SHELTON TEXACO
Address: 2235 OLYMPIC HWY N
City,State,Zip: SHELTON, WA 98584
DOE Site ID: 3720
Financial Resp Type: GREAT AMERICAN INSURANCE
Inception Date: 01/05/2017
Expiration Date: 01/11/2018
Address 2: Not reported
Policy Number: BTA 9988857-06
Effective Date: 01/05/2017
Liability Limit Type: Non-mktg, > 100 tanks, < 10k gals; 500k per occurence, 2m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0
Retroactive Date: Not reported
Latitude: 47.224209
Longitude: -123.122528

Name: SHELTON TEXACO
Address: 2235 OLYMPIC HWY N
City,State,Zip: SHELTON, WA 98584
DOE Site ID: 3720
Financial Resp Type: GREAT AMERICAN INSURANCE
Inception Date: 06/08/2018
Expiration Date: 06/08/2019
Address 2: Not reported
Policy Number: BTA 3744575-00
Effective Date: 06/08/2018
Liability Limit Type: Non-mktg, > 100 tanks, < 10k gals; 500k per occurence, 2m aggregate
Compliance Method: Approved pollution liability insurance
Proof of Responsibility Document Flag: 0

SHELTON TEXACO (Continued) **S108024229**

Retroactive Date: Not reported
Latitude: 47.224209
Longitude: -123.122528

AU213 **JACKPOT FOOD MART 368** **FINDS** **1007070958**
South **2210 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.707 mi.
9015 ft. **Site 3 of 5 in cluster AU**

Relative: **Lower**

Actual: **218 ft.**

FINDS:

Registry ID: 110015475724

Environmental Interest/Information System
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Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AU214 **JACK POT GAS STATION** **EDR Hist Auto** **1021278383**
South **2210 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.707 mi.
9015 ft. **Site 4 of 5 in cluster AU**

Relative: **Lower**

Actual: **218 ft.**

EDR Hist Auto

Year:	Name:	Type:
1987	JACK POT GAS STATION	Grocery Stores
1988	JACK POT GAS STATION	Gasoline Service Stations
1990	JACK POT GAS STATION	Grocery Stores
1991	JACK POT GAS STATION	Grocery Stores
1992	JACK POT GAS STATION	Grocery Stores
1993	JACK POT GAS STATION	Grocery Stores
1994	JACK POT GAS STATION	Grocery Stores
1995	JACK POT GAS STATION	Grocery Stores
2000	JACK POT GAS STATION	Grocery Stores
2001	JACK POT GAS STATION	Grocery Stores
2002	JACK POT GAS STATION	Grocery Stores
2003	JACK POT GAS STATION	Grocery Stores
2004	JACK POT GAS STATION	Grocery Stores
2005	JACK POT GAS STATION	Grocery Stores
2006	JACK POT GAS STATION	Grocery Stores
2007	JACK POT GAS STATION	Grocery Stores

AU215 **JACKPOT FOOD MART 368** **WA UST** **U003354357**
South **2210 OLYMPIC HWY N** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584**
1.707 mi.
9015 ft. **Site 5 of 5 in cluster AU**

Relative:
Lower

Actual:
218 ft.

UST:

Facility ID:	42746522
Site Id:	4007
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.223605999999997
Decimal Longitude:	-123.122962
Tank Name:	272
Tag Number:	A0013
Tank Status:	Removed
Tank Status Date:	2/18/2003
Tank Install Date:	00/01/1970
Tank Closure Date:	05/11/2004
Capacity Range:	10,000 to 19,999 Gallons
Tank Permit Expiration Date:	11/30/2003
Tank Upgrade Date:	08/24/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Statistical Inventory Reconciliation
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Impressed Current
Pipe Pumping System:	Non-Safe Suction
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	281
Tag Number:	A0013
Tank Status:	Removed
Tank Status Date:	2/18/2003
Tank Install Date:	00/01/1970
Tank Closure Date:	05/11/2004
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	11/30/2003
Tank Upgrade Date:	08/24/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Statistical Inventory Reconciliation

JACKPOT FOOD MART 368 (Continued) **U003354357**

Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Impressed Current
Pipe Pumping System:	Non-Safe Suction
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	688
Tag Number:	A0013
Tank Status:	Removed
Tank Status Date:	2/18/2003
Tank Install Date:	00/01/1974
Tank Closure Date:	05/11/2004
Capacity Range:	5,000 to 9,999 Gallons
Tank Permit Expiration Date:	11/30/2003
Tank Upgrade Date:	08/24/1998
Tank Spill Prevention:	Spill Bucket/Spill Box
Tank Overfill Prevention:	Automatic Shutoff (fill pipe)
Tank Material:	Steel
Tank Construction:	Single Wall Tank
Tank Tightness Test:	Annual
Tank Corrosion Protection:	Impressed Current
Tank Manifold:	Not reported
Tank Release Detection:	Statistical Inventory Reconciliation
Tank SFC Type:	Not reported
Pipe Material:	Steel
Pipe Construction:	Single Wall Pipe
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Impressed Current
Pipe Pumping System:	Non-Safe Suction
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

ALLSITES:

Facility Name:	JACKPOT FOOD MART 368
Facility Id:	42746522

Interaction:	43978
Interaction 1:	I
Interaction 2:	TIER2
Ecology Program:	HAZWASTE
Program Data:	EPCRA
Facility Alt.:	Not reported
Program ID:	CRK000014450
Date Interaction:	1991-01-01 00:00:00
Date Interaction 3:	Emergency/Haz Chem Rpt TI
Latitude:	47.223600488000002
Longitude:	-123.122947072

Interaction:	43977
Interaction 1:	A

JACKPOT FOOD MART 368 (Continued) **U003354357**

Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	4007
Date Interaction:	1970-01-01 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.223600488000002
Longitude:	-123.122947072

216
SSE
> 1
1.709 mi.
9023 ft.

MASON GENERAL HOSPITAL **FINDS** **1014851105**
UNKNOWN **N/A**
SHELTON, WA 00000

Relative:
Lower

Actual:
205 ft.

FINDS:

Registry ID: 110041536255

Environmental Interest/Information System
AIR MINOR

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

217
South
> 1
1.710 mi.
9028 ft.

WA ASBESTOS **S119166857**
N/A

2125 WASHINGTON STREET
SHELTON, WA 98584

Relative:
Lower

Actual:
216 ft.

ASBESTOS:

Name:	Not reported
Address:	2125 WASHINGTON STREET
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Residential
Parent ID:	84378
Form ID:	85550##1402KDSEn212168
Notice Date:	04/28/2014
Start Date:	05/23/2014
Completion Date:	05/23/2014
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	9
Site Hours End:	Noon
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported

(Continued) **S119166857**

Friday:	1
Saturday:	Not reported
Contractor ID:	1402
Phone:	360-249-5540
Job Site CAS:	Dean Wilson
Project Form Email:	sandie@kdsenv.com
Property Owner Name:	Not reported
Property Owner Agent:	Erik Birk
Property Owner Company:	City of Shelton
Property Owner Address:	525 W. Cota Street
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-432-5132
Job Site Room:	Not reported
Facility Age:	Unknown
Facility Size:	Unknown
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported

(Continued) **S119166857**

Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Please note the date and work hours changed for this project. We will be doing this Friday instead of next Tuesday. Thank you
Date Time Submitted:	2014-05-22 14:33:38
Submitter IP Address:	173.160.217.169
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1402
Contractor UBI:	602458724
Contractor Priority:	L
Contractor Cris Num:	KDSENEI951BL
Contractor Name:	K D & S Environmental Inc
Contractor Status:	Active
Contact Name:	SANDIE PENNANT
Contact Phone:	3602495540
Contact Fax:	3602493475
Contractor Cert Prn Date:	2016-01-11 00:00:00
Contractor Original Date:	01/13/2005
Contractor Effective Date:	01/14/2009
Contractor Renewal Letter Date:	10/20/2016
Contractor Exp Date:	01/13/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	14
Contractor Street Address:	PO BOX 312
Contractor City:	MONTESANO
Contractor State:	WA
Contractor Zip:	98563
Contractor Phone:	3602495540
Contractor Email:	sandie@kdsenv.com
Contractor Web Address:	www.kdsenv.com
Contractor Mail Street Address:	PO BOX 312
Contractor Mail City:	MONTESANO
Contractor Mail State:	WA
Contractor Mail Zip:	98563
Contractor Memo:	email a copy once processed.

Name:	Not reported
Address:	2125 WASHINGTON STREET
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Residential
Parent ID:	84378

(Continued) **S119166857**

Form ID:	85560##1402KDSEn222756
Notice Date:	04/28/2014
Start Date:	06/06/2014
Completion Date:	06/06/2014
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	9
Site Hours End:	Noon
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	1
Saturday:	Not reported
Contractor ID:	1402
Phone:	360-249-5540
Job Site CAS:	Dean Wilson
Project Form Email:	sandie@kdsenv.com
Property Owner Name:	Not reported
Property Owner Agent:	Erik Birk
Property Owner Company:	City of Shelton
Property Owner Address:	525 W. Cota Street
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-432-5132
Job Site Room:	Not reported
Facility Age:	Unknown
Facility Size:	Unknown
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported

(Continued) **S119166857**

Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	The City of Shelton just called us to say that this house did not get emptied as planned. We have rescheduled it for June 6th. thank you
Date Time Submitted:	2014-05-22 16:26:46
Submitter IP Address:	173.160.217.169
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1402
Contractor UBI:	602458724
Contractor Priority:	L
Contractor Cris Num:	KDSENEI951BL
Contractor Name:	K D & S Environmental Inc
Contractor Status:	Active
Contact Name:	SANDIE PENNANT
Contact Phone:	3602495540
Contact Fax:	3602493475
Contractor Cert Prn Date:	2016-01-11 00:00:00
Contractor Original Date:	01/13/2005
Contractor Effective Date:	01/14/2009
Contractor Renewal Letter Date:	10/20/2016
Contractor Exp Date:	01/13/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	14
Contractor Street Address:	PO BOX 312
Contractor City:	MONTESANO
Contractor State:	WA

(Continued) **S119166857**

Contractor Zip:	98563
Contractor Phone:	3602495540
Contractor Email:	sandie@kdsenv.com
Contractor Web Address:	www.kdsenv.com
Contractor Mail Street Address:	PO BOX 312
Contractor Mail City:	MONTESANO
Contractor Mail State:	WA
Contractor Mail Zip:	98563
Contractor Memo:	email a copy once processed.

Name:	Not reported
Address:	2125 WASHINGTON STREET
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Residential
Parent ID:	84378
Form ID:	86183##1402KDSEn953103
Notice Date:	04/28/2014
Start Date:	06/06/2014
Completion Date:	06/06/2014
Initial:	Not reported
Amended:	1
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	9
Site Hours End:	Noon
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	1
Saturday:	Not reported
Contractor ID:	1402
Phone:	360-249-5540
Job Site CAS:	Dean Wilson
Project Form Email:	sandie@kdsenv.com
Property Owner Name:	Not reported
Property Owner Agent:	Erik Birk
Property Owner Company:	City of Shelton
Property Owner Address:	525 W. Cota Street
Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-432-5132
Job Site Room:	Not reported
Facility Age:	Unknown
Facility Size:	Unknown
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported

(Continued) **S119166857**

Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	This project is completed and all workers are off site. Thank you
Date Time Submitted:	2014-06-06 11:07:24
Submitter IP Address:	173.160.217.169
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1402
Contractor UBI:	602458724
Contractor Priority:	L
Contractor Cris Num:	KDSENEI951BL

(Continued) **S119166857**

Contractor Name:	K D & S Environmental Inc
Contractor Status:	Active
Contact Name:	SANDIE PENNANT
Contact Phone:	3602495540
Contact Fax:	3602493475
Contractor Cert Prn Date:	2016-01-11 00:00:00
Contractor Original Date:	01/13/2005
Contractor Effective Date:	01/14/2009
Contractor Renewal Letter Date:	10/20/2016
Contractor Exp Date:	01/13/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	14
Contractor Street Address:	PO BOX 312
Contractor City:	MONTESANO
Contractor State:	WA
Contractor Zip:	98563
Contractor Phone:	3602495540
Contractor Email:	sandie@kdsenv.com
Contractor Web Address:	www.kdsenv.com
Contractor Mail Street Address:	PO BOX 312
Contractor Mail City:	MONTESANO
Contractor Mail State:	WA
Contractor Mail Zip:	98563
Contractor Memo:	email a copy once processed.

Name:	Not reported
Address:	2125 WASHINGTON STREET
City,State,Zip:	SHELTON, WA 98584
Facility Type:	Residential
Parent ID:	0
Form ID:	84378##1402KDSEn445104
Notice Date:	04/28/2014
Start Date:	05/27/2014
Completion Date:	05/27/2014
Initial:	1
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	7:00
Site Hours End:	Noon
Sunday:	Not reported
Monday:	Not reported
Tuesday:	1
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	1402
Phone:	360-249-5540
Job Site CAS:	Dean Wilson
Project Form Email:	sandie@kdsenv.com
Property Owner Name:	Not reported
Property Owner Agent:	Erik Birk
Property Owner Company:	City of Shelton
Property Owner Address:	525 W. Cota Street

(Continued) **S119166857**

Property Owner City:	Shelton
Property Owner State:	WA
Property Owner Zip4:	98584
Property Owner Phone:	360-432-5132
Job Site Room:	Not reported
Facility Age:	Unknown
Facility Size:	Unknown
Facility Remodel:	Not reported
Facility Demo:	1
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	1
Encapsulated:	Not reported
Quantity Sq Ft:	200
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	1
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported
VAT:	1
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	1
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	1
Wrap And Cut:	Not reported
Wet Methods:	1
HEPA Vacuum:	1
MANUALMETHODS :	1
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	1
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported

(Continued) **S119166857**

Comments:	Not reported
Date Time Submitted:	2014-04-28 13:40:59
Submitter IP Address:	173.160.217.169
Region:	Not reported
UBI:	Not reported
Notice type:	Not reported
Project Type:	Not reported
Supervisor:	Not reported
Supervisor Phone:	Not reported
Certificate Status:	Not reported

Contractor:

Contractor ID:	1402
Contractor UBI:	602458724
Contractor Priority:	L
Contractor Cris Num:	KDSENEI951BL
Contractor Name:	K D & S Environmental Inc
Contractor Status:	Active
Contact Name:	SANDIE PENNANT
Contact Phone:	3602495540
Contact Fax:	3602493475
Contractor Cert Prn Date:	2016-01-11 00:00:00
Contractor Original Date:	01/13/2005
Contractor Effective Date:	01/14/2009
Contractor Renewal Letter Date:	10/20/2016
Contractor Exp Date:	01/13/2017
Contractor Suspended Date:	Not reported
Contractor Cnty Code:	14
Contractor Street Address:	PO BOX 312
Contractor City:	MONTESANO
Contractor State:	WA
Contractor Zip:	98563
Contractor Phone:	3602495540
Contractor Email:	sandie@kdsenv.com
Contractor Web Address:	www.kdsenv.com
Contractor Mail Street Address:	PO BOX 312
Contractor Mail City:	MONTESANO
Contractor Mail State:	WA
Contractor Mail Zip:	98563
Contractor Memo:	email a copy once processed.

AV218 **MATLOCK SHOP** **WA UST** **U003354441**
SSE **WEST 50 MATLOCK DECKERVILLE RD POB** **WA ALLSITES** **N/A**
> 1 **SHELTON, WA 98584**
1.717 mi.
9065 ft. **Site 1 of 3 in cluster AV**

Relative:
Higher

Actual:
247 ft.

UST:

Facility ID:	3626955
Site Id:	4212
UBI:	Not reported
Phone Number:	Not reported
Decimal Latitude:	47.226483000000002
Decimal Longitude:	-123.10515100000001
Tank Name:	1
Tag Number:	Not reported

MATLOCK SHOP (Continued) **U003354441**

Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	111 TO 1,100 Gallons
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Not reported
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

Tank Name:	2
Tag Number:	Not reported
Tank Status:	Removed
Tank Status Date:	8/6/1996
Tank Install Date:	00/31/1964
Tank Closure Date:	Not reported
Capacity Range:	111 TO 1,100 Gallons
Tank Permit Expiration Date:	Not reported
Tank Upgrade Date:	Not reported
Tank Spill Prevention:	Not reported
Tank Overfill Prevention:	Not reported
Tank Material:	Not reported
Tank Construction:	Not reported
Tank Tightness Test:	Not reported
Tank Corrosion Protection:	Not reported
Tank Manifold:	Not reported
Tank Release Detection:	Not reported
Tank SFC Type:	Not reported
Pipe Material:	Not reported
Pipe Construction:	Not reported
Pipe Primary Release Detection:	Not reported
Pipe Second Release Detection:	Not reported
Pipe Corrosion Protection:	Not reported
Pipe Pumping System:	Not reported
Responsible Unit:	SOUTHWEST
Dispencer/Pump SFC Type:	Not reported

ALLSITES:

Facility Name:	MATLOCK SHOP
Facility Id:	3626955

MATLOCK SHOP (Continued) **U003354441**

Interaction:	13067
Interaction 1:	I
Interaction 2:	UST
Ecology Program:	TOXICS
Program Data:	UST
Facility Alt.:	Not reported
Program ID:	4212
Date Interaction:	1999-06-28 00:00:00
Date Interaction 3:	Underground Storage Tank
Latitude:	47.226477486999997
Longitude:	-123.105136075

AW219 **AERO CONTROLS INCORPORATED** **ECHO** **1024929149**
West **520 W DAYTON AIRPORT RD** **N/A**
> 1 **SHELTON, WA 98584**
1.717 mi.
9066 ft. **Site 1 of 2 in cluster AW**

Relative: **Higher**

Actual: **307 ft.**

ECHO:

Envid:	1024929149
Registry ID:	110005383548
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110005383548

AV220 **MATLOCK SHOP** **FINDS** **1007078741**
SSE **50 MATLOCK DECKERVILLE RD W** **N/A**
> 1 **SHELTON, WA 98584**
1.719 mi.
9077 ft. **Site 2 of 3 in cluster AV**

Relative: **Higher**

Actual: **251 ft.**

FINDS:

Registry ID: 110015554336

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AV221
SSE
> 1
1.719 mi.
9077 ft.

FIR CREEK WORK CENTER
S3 T21N R5W NW1/4
SHELTON, WA 98584

Site 3 of 3 in cluster AV

FINDS **1007072463**
N/A

Relative:
Higher

Actual:
251 ft.

FINDS:

Registry ID: 110015490887

Environmental Interest/Information System
Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

222
SSE
> 1
1.725 mi.
9107 ft.

MASON CO PUD # 3
237 PROFFESSIONAL AWAY
SHELTON, WA

WA SPILLS **S110066434**
N/A

Relative:
Lower

Actual:
203 ft.

SPILLS:

Name:	MASON CO PUD # 3
Address:	237 PROFFESSIONAL AWAY
City,State,Zip:	SHELTON, WA
Facility ID:	615799
Medium:	SOIL
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	Not reported
Material Units:	GALLON
Date Received:	10/12/2009
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

AX223 **TRANSFORMER SVC CO** **WA ALLSITES** **1000320072**
SW **PORT OF SHELTON SANDERSON FLD** **RCRA NonGen / NLR** **WAD980977854**
> 1 **SHELTON, WA 98584**
1.739 mi.
9184 ft. **Site 1 of 2 in cluster AX**

Relative: Higher

Actual: 264 ft.

ALLSITES:

Facility Name:	TRANSFORMER SVC CO
Facility Id:	79875812
Interaction:	65433
Interaction 1:	I
Interaction 2:	HWG
Ecology Program:	HAZWASTE
Program Data:	TURBOWASTE
Facility Alt.:	Not reported
Program ID:	WAD980977854
Date Interaction:	1985-05-09 00:00:00
Date Interaction 3:	Hazardous Waste Generator
Latitude:	47.233174491
Longitude:	-123.150215066

RCRA NonGen / NLR:

Date form received by agency:	05/09/1985
Facility name:	TRANSFORMER SVC CO
Facility address:	PORT OF SHELTON SANDERSON FLD SHELTON, WA 98584
EPA ID:	WAD980977854
Mailing address:	PO BOX 1369 SHELTON, WA 98584-0916
Contact:	TRANSFORMER SVC TRANSFORMER SVC
Contact address:	PO BOX 1369 SHELTON, WA 98584-0916
Contact country:	US
Contact telephone:	000-000-0000
Contact email:	Not reported
EPA Region:	10
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	TRANSFORMER SVC T
Owner/operator address:	PO BOX 1369 SHELTON, WA 98584
Owner/operator country:	US
Owner/operator telephone:	000-000-0000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	05/02/1996
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No

TRANSFORMER SVC CO (Continued) **1000320072**

Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	05/09/1985
Site name:	TRANSFORMER SVC CO
Classification:	Not a generator, verified
Violation Status:	No violations found

AX224 **TRANSFORMER SVC CO** **FINDS** **1016292536**
SW **SANDERSON INDUSTRIAL PARK P O BOX 1365** **ECHO** **N/A**
> 1 **SHELTON, WA 98584**
1.739 mi.
9184 ft. **Site 2 of 2 in cluster AX**

Relative: Higher

Actual: 264 ft.

FINDS:

Registry ID: 110011638692

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1016292536
Registry ID:	110011638692
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110011638692

AW225
West
> 1
1.740 mi.
9189 ft.

AERO CONTROLS INC DAYTON AIRPORT RD — **FINDS** — **1016206276**
W 520 DAYTON AIRPORT RD — **N/A**
SHELTON, WA 98584

Site 2 of 2 in cluster AW

Relative:
Higher

Actual:
306 ft.

FINDS:

Registry ID: 110005383548

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

AY226
South
> 1
1.745 mi.
9216 ft.

SHELTON SATELLITE WWTP — **WA RGA LF** — **S115352172**
10891 HIGHWAY 101 — **N/A**
SHELTON, WA

Site 1 of 2 in cluster AY

Relative:
Lower

Actual:
223 ft.

RGA LF:

2012	SHELTON SATELLITE WWTP	10891 HIGHWAY 101
2011	SHELTON SATELLITE WWTP	10891 HIGHWAY 101

AY227
South
> 1
1.745 mi.
9216 ft.

SHELTON SATELLITE WWTP — **WA SWF/LF** — **S111027544**
10891 HIGHWAY 101 — **N/A**
SHELTON, WA 98584

Site 2 of 2 in cluster AY

Relative:
Lower

Actual:
223 ft.

SWF/LF:

Name:	SHELTON SATELLITE WWTP
Address:	10891 HIGHWAY 101
City,State,Zip:	SHELTON, WA 98584
Facility ID:	504
Region:	STATE
Permit Status:	Not reported
Contact Organization:	Shelton Satellite WWTP
Contact Address1:	1000 W Pine
Contact Address2:	Not reported
Contact City:	Shelton
Contact State:	WA

SHELTON SATELLITE WWTP (Continued) **S111027544**

Contact Postal:	98584
Contact EMail:	barmstrong@ci.shelton.wa.us
Contact Phone:	(360) 426-6521
Contact Phone Ext:	Not reported
Permit No:	Not reported
Phone:	Not reported
Operator Name:	Not reported
Operator Organization:	Shelton Satellite WWTP
Operator EMail:	Not reported
Operator Title:	Not reported
Recycle Survey Code:	Not reported
Ownership:	PRIVATE
Facility Type:	Biosolids Management
Contact Name:	Brent Armstrong
Contact Title:	Lead Operator
Year Closed:	Not reported
Open to Public Flag:	No
Website:	Not reported
Latitude:	47.23386
Longitude:	-123.12995

AZ228 **WA SPILLS** **S108010331**
SSE **809 TERRACE BLVD** **N/A**
> 1 **SHELTON, WA**
1.749 mi.
9236 ft. **Site 1 of 2 in cluster AZ**

Relative: **Lower**

Actual: **220 ft.**

SPILLS:

Name:	Not reported
Address:	809 TERRACE BLVD
City,State,Zip:	SHELTON, WA
Facility ID:	555154
Medium:	Not reported
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	1
Material Units:	GALLON
Date Received:	05/16/2006
Contact Name:	Not reported
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

AZ229
SSE
> 1
1.755 mi.
9266 ft.

PUD
801 TERRACE BLVD
SHELTON, WA

Site 2 of 2 in cluster AZ

WA SPILLS **S110337052**
N/A

Relative:
Lower

Actual:
221 ft.

SPILLS:

Name:	PUD
Address:	801 TERRACE BLVD
City,State,Zip:	SHELTON, WA
Facility ID:	620758
Medium:	SOIL
Material Desc:	PETROLEUM - MINERAL OIL
Material Qty:	1
Material Units:	GALLON
Date Received:	06/23/2010
Contact Name:	EDDINGZ
Incident Date:	Not reported
Incident Category Type:	Not reported
Incident Category:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Source Type:	Not reported
Source:	Not reported
Vessel Facility Name2:	Not reported
Recovered Quantity:	Not reported
Resp Party Contact:	Not reported
Cause:	Not reported
Cause Type:	Not reported
Resp Party Name:	Not reported

BA230
South
> 1
1.815 mi.
9581 ft.

D & L AUTOMOTIVE & MARINE
2033 OLYMPIC HWY N
SHELTON, WA 98584

Site 1 of 3 in cluster BA

FINDS **1012222272**
N/A

Relative:
Lower

Actual:
215 ft.

FINDS:

Registry ID: 110040599536

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

BA231
South
> 1
1.815 mi.
9581 ft.

D & L AUTOMOTIVE & MARINE
2033 OLYMPIC HWY N
SHELTON, WA 98584

Site 2 of 3 in cluster BA

WA ALLSITES **S110275975**
N/A

Relative:
Lower

Actual:
215 ft.

ALLSITES:

Facility Name:	D & L AUTOMOTIVE & MARINE
Facility Id:	8147
Interaction:	91178
Interaction 1:	I
Interaction 2:	LSC
Ecology Program:	HAZWASTE
Program Data:	LSC
Facility Alt.:	D & L Automotive & Marine
Program ID:	Not reported
Date Interaction:	2009-05-20 00:00:00
Date Interaction 3:	Local Source Cntrl 7/09-3
Latitude:	47.222193488999999
Longitude:	-123.120586073

232
West
> 1
1.825 mi.
9635 ft.

WA WSP ACADEMY
W 631 DAYTON AIRPORT RD WS05
SHELTON, WA 98584

FINDS **1016206169**
ECHO **N/A**

Relative:
Higher

Actual:
303 ft.

FINDS:

Registry ID: 110005372060

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water Quality Programs.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1016206169
Registry ID:	110005372060
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110005372060

233
South
> 1
1.828 mi.
9654 ft.

506 WEST I STREET
SHELTON, WA

WA ASBESTOS **S123678028**
N/A

Relative:
Lower

Actual:
220 ft.

ASBESTOS:

Name:	Not reported
Address:	506 WEST I STREET
City,State,Zip:	SHELTON, WA
Facility Type:	Not reported
Parent ID:	Not reported
Form ID:	136227#161355419
Notice Date:	01/11/2019
Start Date:	01/14/2019
Completion Date:	01/14/2019
Initial:	Not reported
Amended:	Not reported
On Hold:	Not reported
Off Hold:	Not reported
Emergency:	Not reported
Site Hours Start:	Not reported
Site Hours End:	Not reported
Sunday:	Not reported
Monday:	Not reported
Tuesday:	Not reported
Wednesday:	Not reported
Thursday:	Not reported
Friday:	Not reported
Saturday:	Not reported
Contractor ID:	(ABCN00001669)
Phone:	Not reported
Job Site CAS:	Not reported
Project Form Email:	Not reported
Property Owner Name:	Not reported
Property Owner Agent:	Not reported
Property Owner Company:	RSG ABATEMENT & DMLTN CORP (TACOMA)
Property Owner Address:	Not reported
Property Owner City:	Not reported
Property Owner State:	Not reported
Property Owner Zip4:	Not reported
Property Owner Phone:	Not reported
Job Site Room:	Not reported
Facility Age:	Not reported
Facility Size:	Not reported
Facility Remodel:	Not reported
Facility Demo:	Not reported
Facility Repair:	Not reported
Facility Maint:	Not reported
Removed:	Not reported
Encapsulated:	Not reported
Quantity Sq Ft:	Not reported
Fireproofing:	Not reported
Popcorn Ceiling:	Not reported
CAB:	Not reported
Sheet Vinyl:	Not reported
Asbestos Paper:	Not reported
Boiler Insulation:	Not reported
Duct Paper:	Not reported

(Continued) **S123678028**

VAT:	Not reported
Roofing:	Not reported
Sq Ft Other:	Not reported
Sq Ft Other Text:	Not reported
Quantity Lin Ft:	Not reported
Mag Pipe Insulation:	Not reported
Air Cell Pipe Insulation:	Not reported
Ducting Insulation:	Not reported
Cement Asbestos Pipe:	Not reported
Mudded Pipe Insulation:	Not reported
Duct Tape:	Not reported
Lin Ft Other1:	Not reported
Lin Ft Other1 Text:	Not reported
Lin Ft Other2:	Not reported
Lin Ft Other2 Text:	Not reported
Indoors:	Not reported
Outdoors:	Not reported
Neg Pres Enclosure:	Not reported
Glove Bag:	Not reported
Mini Enclosure:	Not reported
Critical Barriers:	Not reported
Wrap And Cut:	Not reported
Wet Methods:	Not reported
HEPA Vacuum:	Not reported
MANUALMETHODS :	Not reported
Other CM1:	Not reported
Other CM1 Text:	Not reported
Other CM2:	Not reported
Other CM2 Text:	Not reported
Half Mask APR:	Not reported
Full Face APR:	Not reported
PAPR:	Not reported
Type C Continuous:	Not reported
Type C Pressure:	Not reported
Other Resp Pro:	Not reported
Other Resp Pro Text:	Not reported
Comments:	Not reported
Date Time Submitted:	Not reported
Submitter IP Address:	Not reported
Region:	4
UBI:	604274440
Notice type:	Emergency
Project Type:	Sheet Vinyl
Supervisor:	Eddie Barrette
Supervisor Phone:	(abas00026780)
Certificate Status:	A

234
South
> 1
1.839 mi.
9710 ft.

124 E. "G" ST.,
SHELTON, WA 98584

WA HIST CDL **S106782848**
N/A

Relative:
Lower

Actual:
213 ft.

HIST CDL:

Facility ID:	20015
Tax ID Number:	32018-51-17005
Contamination Date:	1/21/2000
Remediation Date:	5/23/2000

BA235 **CUZICK ROLAND** **EDR Hist Auto** **1021548099**
South **2005 OLYMPIC HWY N** **N/A**
> 1 **SHELTON, WA 98584**
1.840 mi.
9713 ft. **Site 3 of 3 in cluster BA**

Relative: EDR Hist Auto
Lower

Actual:
214 ft.

Year:	Name:	Type:
1971	CUZICK ROLAND	Gasoline Service Stations
1972	CUZICK ROLAND	Gasoline Service Stations
1973	CUZICK ROLAND	Gasoline Service Stations
1974	CUZICK ROLAND	Gasoline Service Stations
1976	CUZICK ROLAND	Gasoline Service Stations
1977	CUZICK ROLAND	Gasoline Service Stations
1978	CUZICK ROLAND	Gasoline Service Stations
1979	CUZICK ROLAND	Gasoline Service Stations
1980	CUZICK ROLAND	Gasoline Service Stations
1982	CUZICK ROLAND	Gasoline Service Stations
1983	CUZICK ROLAND	Gasoline Service Stations
2006	NORRIS AUTO DETAIL	General Automotive Repair Shops
2007	NORRIS AUTO DETAIL	General Automotive Repair Shops
2008	CASTRO AUTOMOTIVE	Automotive Repair Shops, NEC
2009	CASTRO AUTOMOTIVE	Automotive Repair Shops, NEC
2010	CASTRO AUTOMOTIVE	Automotive Repair Shops, NEC
2011	CASTRO AUTOMOTIVE	Automotive Repair Shops, NEC
2012	CASTRO AUTOMOTIVE	Automotive Repair Shops, NEC
2013	CASTRO AUTOMOTIVE	Automotive Repair Shops, NEC
2014	CASTRO AUTOMOTIVE	Automotive Repair Shops, NEC

Count: 0 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 41

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019
Date Data Arrived at EDR: 02/04/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

HSL: Hazardous Sites List

The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 97

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Semi-Annually

State- and tribal - equivalent CERCLIS

CSCSL: Confirmed and Suspected Contaminated Sites List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 01/15/2019
Date Data Arrived at EDR: 01/16/2019
Date Made Active in Reports: 03/29/2019
Number of Days to Update: 72

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facility Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/06/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 6

Source: Department of Ecology
Telephone: 360-407-6132
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks Site List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/13/2019
Date Data Arrived at EDR: 05/15/2019
Date Made Active in Reports: 06/28/2019
Number of Days to Update: 44

Source: Department of Ecology
Telephone: 360-407-7183
Last EDR Contact: 05/15/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/09/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/29/2019
Number of Days to Update: 45
Source: Department of Ecology
Telephone: 360-407-7183
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

AST: Aboveground Storage Tank Locations
A listing of aboveground storage tank locations regulated by the Department of Ecology's Spill Prevention, Preparedness and Response Program.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 02/02/2016
Date Made Active in Reports: 05/03/2016
Number of Days to Update: 91
Source: Department of Ecology
Telephone: 360-407-7562
Last EDR Contact: 04/29/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

INST CONTROL: Institutional Control Site List
Sites that have institutional controls.

Date of Government Version: 01/15/2019
Date Data Arrived at EDR: 01/16/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 75

Source: Department of Ecology
Telephone: 360-407-7170
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Sites
Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

Date of Government Version: 01/15/2019
Date Data Arrived at EDR: 01/16/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 75

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

ICR: Independent Cleanup Reports
These are remedial action reports Ecology has received from either the owner or operator of the sites. These actions have been conducted without department oversight or approval and are not under an order or decree. This database is no longer updated by the Department of Ecology.

Date of Government Version: 12/01/2002
Date Data Arrived at EDR: 01/03/2003
Date Made Active in Reports: 01/22/2003
Number of Days to Update: 19

Source: Department of Ecology
Telephone: 360-407-7200
Last EDR Contact: 08/10/2009
Next Scheduled EDR Contact: 11/09/2009
Data Release Frequency: No Update Planned

PTAP: PTAP Site Listing
A list of sites accepted into the Petroleum Technical Assistance Program. The Petroleum Technical Assistance Program (PTAP) expands the state's ability to respond to the high customer demand to clean up petroleum contaminated sites. Under the PTAP, the Pollution Liability Insurance Agency (PLIA) may provide informal site-specific technical consultations and issue written opinion letters to persons conducting independent remedial actions at qualifying petroleum cleanup sites. PLIA may provide these services under the authority of RCW 70.149.040(9) and the Model Toxics Control Act (MTCA), Chapter 70.149 RCW and Chapter 173-340 WAC.

Date of Government Version: 05/13/2019
Date Data Arrived at EDR: 05/15/2019
Date Made Active in Reports: 06/28/2019
Number of Days to Update: 44

Source: Department of Ecology
Telephone: 360-407-0515
Last EDR Contact: 05/15/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites Listing

A listing of brownfields sites included in the Confirmed & Suspected Sites Listing. Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

Date of Government Version: 04/16/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 70

Source: Department of Ecology
Telephone: 360-725-4030
Last EDR Contact: 04/17/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/04/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWTIRE 2: Solid Waste Tire Facilities 2

solid waste tire piles

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 109

Source: Department of Ecology
Telephone: 425-649-7104
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

SWRCY: Recycling Facility List

A llisting of recycling center locations.

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 04/12/2019
Date Made Active in Reports: 07/05/2019
Number of Days to Update: 84

Source: Department of Ecology
Telephone: 360-407-6105
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

SWTIRE: Solid Waste Tire Facilities
This study identified sites statewide with unauthorized accumulations of scrap tires.

Date of Government Version: 11/01/2005
Date Data Arrived at EDR: 03/16/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 28
Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 09/08/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ALLSITES: Facility/Site Identification System Listing
Information on facilities and sites of interest to the Department of Ecology.

Date of Government Version: 05/08/2019
Date Data Arrived at EDR: 05/09/2019
Date Made Active in Reports: 06/28/2019
Number of Days to Update: 50

Source: Department of Ecology
Telephone: 360-407-6423
Last EDR Contact: 04/29/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Contaminated Site List
Illegal methamphetamine labs use hazardous chemicals that create public health hazards. Chemicals and residues can cause burns, respiratory and neurological damage, and death. Biological hazards associated with intravenous needles, feces, and blood also pose health risks.

Date of Government Version: 02/07/2019
Date Data Arrived at EDR: 02/08/2019
Date Made Active in Reports: 03/29/2019
Number of Days to Update: 49

Source: Department of Health
Telephone: 360-236-3380
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

HIST CDL: List of Sites Contaminated by Clandestine Drug Labs
This listing of contaminated sites by Clandestine Drug Labs includes non-remediated properties. The current CDL listing does not. This listing is no longer updated by the state agency.

Date of Government Version: 02/08/2007
Date Data Arrived at EDR: 06/26/2007
Date Made Active in Reports: 07/19/2007
Number of Days to Update: 23

Source: Department of Health
Telephone: 360-236-3381
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

CSCSL NFA: Confirmed and Contaminated Sites - No Further Action
This report contains information about sites that are undergoing cleanup and sites that are awaiting further investigation and/or cleanup. Sites on the Hazardous Sites List (see above) are included in this data set.

Date of Government Version: 04/16/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 70

Source: Department of Ecology
Telephone: 360-407-7170
Last EDR Contact: 04/17/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing
PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid, respectively. Both are fluorinated organic chemicals, part of a larger family of compounds referred to as perfluoroalkyl substances (PFASs).

Date of Government Version: 05/06/2019
Date Data Arrived at EDR: 05/07/2019
Date Made Active in Reports: 06/28/2019
Number of Days to Update: 52

Source: Department of Ecology
Telephone: 360-407-6116
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

SPILLS: Reported Spills

Spills reported to the Spill Prevention, Preparedness and Response Division.

Date of Government Version: 06/12/2019
Date Data Arrived at EDR: 06/14/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 3

Source: Department of Ecology
Telephone: 360-407-6950
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/23/2006
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/06/2013
Number of Days to Update: 62

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 03/07/2019
Date Data Arrived at EDR: 04/03/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 50

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/21/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/18/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/24/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 10

Source: EPA
Telephone: (206) 553-1200
Last EDR Contact: 06/05/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019
Date Data Arrived at EDR: 04/09/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/21/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 39

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/21/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Quarterly

AIRS (EMI): Washington Emissions Data System

Emissions inventory data.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 06/19/2019
Number of Days to Update: 110

Source: Department of Ecology
Telephone: 360-407-6040
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ASBESTOS: Asbestos Notification Listing
Asbestos sites

Date of Government Version: 03/21/2019
Date Data Arrived at EDR: 03/22/2019
Date Made Active in Reports: 06/18/2019
Number of Days to Update: 88

Source: Department of Labor & Industries
Telephone: 360-902-6209
Last EDR Contact: 05/15/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Site Listing
A listing of coal ash disposal site locations.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 06/18/2019
Number of Days to Update: 7

Source: Department of Ecology
Telephone: 360-407-6933
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner List
A listing of registered drycleaners who registered with the Department of Ecology (using the SIC code of 7215 and 7216) as hazardous waste generators.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/24/2019
Number of Days to Update: 62

Source: Department of Ecology
Telephone: 360-407-6732
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/28/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 06/18/2019
Number of Days to Update: 19

Source: Department of Ecology
Telephone: 360-586-1060
Last EDR Contact: 05/28/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/22/2019
Date Data Arrived at EDR: 05/23/2019
Date Made Active in Reports: 06/28/2019
Number of Days to Update: 36

Source: Department of Ecology
Telephone: 360-407-6754
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

Financial Assurance 3: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/15/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 01/04/2018
Number of Days to Update: 45

Source: Department of Ecology
Telephone: 360-407-6136
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

INACTIVE DRYCLEANERS: Inactive Drycleaners
A listing of inactive drycleaner facility locations.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 06/24/2019
Number of Days to Update: 0

Source: Department of Ecology
Telephone: 360-407-6732
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

WA MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 06/24/2019
Number of Days to Update: 87

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Annually

NPDES: Water Quality Permit System Data
A listing of permitted wastewater facilities.

Date of Government Version: 04/16/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 06/25/2019
Number of Days to Update: 68

Source: Department of Ecology
Telephone: 360-407-6073
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

UIC: Underground Injection Wells Listing
A listing of underground injection wells.

Date of Government Version: 01/15/2019
Date Data Arrived at EDR: 01/16/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 75

Source: Department of Ecology
Telephone: 360-407-6143
Last EDR Contact: 04/18/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Ecology in Washington.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Ecology
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

KING COUNTY:

LF KING: Abandoned Landfill Study in King County
The King County Abandoned Landfill Survey was conducted from October through December 1984 by the Health Department's Environmental Health Division at the request of the King County Council. The primary objective of the survey was to determine if any public health problems existed at the predetermined 24 sites.

Date of Government Version: 04/30/1985
Date Data Arrived at EDR: 11/07/1994
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Seattle-King County Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 10/21/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SEATTLE COUNTY:

LF SEATTLE CITY: Abandoned Landfill Study in the City of Seattle
The Seattle Abandoned Landfill Survey was conducted in June and July of 1984 by the Health Department's Environmental Health Division at the request of the Mayor's Office. The primary objective of the survey was to determine if any public health problems existed at the predetermined 12 sites.

Date of Government Version: 07/30/1984
Date Data Arrived at EDR: 11/07/1994
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: Seattle - King County Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 10/21/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SEATTLE/KING COUNTY:

LF SEATTLE/KING: Seattle - King County Abandoned Landfill Toxicity / Hazard Assessment Project
This report presents the Seattle-King County Health Department's follow-up investigation of two city owned and four county owned abandoned landfills which was conducted from February to December 1986.

Date of Government Version: 12/31/1986
Date Data Arrived at EDR: 08/18/1995
Date Made Active in Reports: 09/20/1995
Number of Days to Update: 33

Source: Department of Public Health
Telephone: 206-296-4785
Last EDR Contact: 08/14/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SNOHOMISH COUNTY:

LF SNOHOMISH: Solid Waste Sites of Record at Snohomish Health District
Solid waste disposal and/or utilization sites in Snohomish County.

Date of Government Version: 11/16/2011
Date Data Arrived at EDR: 03/29/2012
Date Made Active in Reports: 05/03/2012
Number of Days to Update: 35

Source: Snohomish Health District
Telephone: 206-339-5250
Last EDR Contact: 06/18/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

TACOMA/PIERCE COUNTY:

LF TACOMA/PIERCE: Closed Landfill Survey
Following numerous requests for information about closed dumpsites and landfills in Pierce County, the Tacoma-Pierce County Health Department decided to conduct a study on the matter. The aim of the study was to evaluate public health risks associated with the closed dumpsites and landfills, and to determine the need, if any, for further investigations of a more detailed nature. The sites represent all of the known dumpsites and landfills closed after 1950.

Date of Government Version: 09/01/2002
Date Data Arrived at EDR: 03/24/2003
Date Made Active in Reports: 05/14/2003
Number of Days to Update: 51

Source: Tacoma-Pierce County Health Department
Telephone: 206-591-6500
Last EDR Contact: 03/19/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/04/2019
Number of Days to Update: 20

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/27/2018
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Daycare Center Listing
Source: Department of Social & Health Services
Telephone: 253-383-1735

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Ecology
Telephone: 360-407-6121

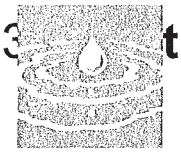
Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

Appendix 8A

EMERGENCY RESPONSE PLAN



tion 1. Emergency Response Mission and Goals

Use the mission statement and goals to help focus emergency planning and response.

3.3.1.1.1 Emergency response mission and goals

Mission statement for emergency response	In an emergency, the mission of the City of Shelton Water Department is to protect the health of our customers by being prepared to respond immediately to a variety of events that may result in contamination of potable water supplies or the disruption of potable water supply system.
Goal 1	Be able to quickly identify an emergent situation or an emergency and initiate timely and effective response actions.
Goal 2	Be able to quickly notify local, state, and federal agencies as needed to assist in the response.
Goal 3	Protect the public health by being able to quickly determine if the City's water is unsafe to drink or use; and being able to immediately notify customers effectively of the situation and advise them of appropriate protective actions.
Goal 4	To be able to quickly respond effectively with measures that will alleviate hazardous situations and minimize system down time.

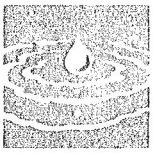
Section 2.
System Information

Keep this basic information readily available for when you need it for emergency responders, repair people, and the news media.

3.3.1.1.2 System information

System identification number	78170N	
System name and address	The City of Shelton – Potable Water System 525 W. Cota Street Shelton, WA 98584	
Directions to the system	Drive northerly on route US 101 to Railroad Ave exit. Turn right at the end of the off ramp and head easterly into town on Railroad Ave for about 1.5 miles to 8th Street. Turn left onto 8th Street and drive 3 blocks to Pine Street. Turn left on Pine Street and proceed through the two gates into the Public Works Facilities. The Water Dept. office is located on the left. The three active wells and Shelton Springs are generally located 1 mile north of the shops.	
Basic description and location of system facilities	The City of Shelton water system has a total of 4 groundwater wells. Well #1 extends to 745ft; well #2 is currently withdrawing water between 205 to 278ft (and at present has been disconnected from the system); well #3 is drilled to a depth of 278ft and well #4 is drilled to a depth of 298ft. Shelton Springs were once the original source for the City, but have been inactivated since 2000. The wells and Shelton Springs are generally located in the northern portion of the City near Shelton Creek. There are pump stations for Mountain View, Angleside and Capitol Hill; and reservoirs at Mountain View, Angleside, Capitol Hill and High School.	
Location and Town	Shelton, Washington	
Population served and service connections	9,975 People	4,388 Connections
System owner **Should be a person's name**	Ken Gill- Engineer Matt Deemer- Water Field Supervisor	

Name, title, and phone numbers of person responsible for maintaining and implementing the emergency plan.	Matt Deemer	(360)432 -5187 Phone (360)490 -8684 Cell (360)490 -0610 Home



Section 3.
Chain of Command and Lines of Authority

The first response step in any emergency is to inform the person at the top of this list, who is responsible for managing the emergency and making key decisions.

3.3.1.1.3 Chain of command and lines of authority

Name and title	Responsibilities during an emergency	Contact numbers
Jay Harris	The Public Works Director is the initial point of contact for the elected officials. He will assess the situation, authorizes staff activities and provide briefings for the elected officials and public as necessary.	(360) 432 -5125 Phone (360) 490 -8567 Cell (360) 490-8567 Evening
Ken Gill	City Engineer will provide an initial technical assessment of the situation. He will brief the Public Works Director (and others as necessary) and work towards developing the necessary resources to deal with the situation.	(360) 432 -5144 Phone (360) 490 -0453 Cell (360) 490-0453 Evening
Mike Albaugh	Superintendent will coordinate the emergency response activities between the Water Department and other Public Works Divisions that may be involved in the overall response. He will report to the City Engineer on the situation and identify resource needed to resolve the situation.	(360) 432 -5186 Phone (360) 490 -1279 Cell (360) 427-6340 Evening
Matt Deemer	The Lead Worker and his crew will conduct the detailed assessment of the situation. He will identify a detailed approach to resolve the situation; together with the necessary materials and resources to correct the situation and an estimate of the timelines for the remediation. He will consult with the City Engineer and/or Superintendent and provide supervision for those working directly with him.	(360) 432 -5187 Phone (360) 490 -8684 Cell (360) 490-0610 Evening
Rodgar Garrick	To assist the Water Lead Worker and assume his responsibilities in the absences of the Water Division Lead Worker.	(360) 432 -5192 Phone (360) 810 -0842 Cell

Section 4.
Events that Cause Emergencies

The events below may cause water system emergencies. They appear in order from highest to lowest probable risk.

3.3.1.1.4 Events that cause emergencies

Type of event	Probability or Risk (High, Medium, Low)	Comments
Earthquake	Med	Had minor earthquake damages in February 2001 quake.
Flood	High	Portions of the system are located in an area vulnerable to reoccurring flooding.
High Winds	Med	System has some vulnerability to high wind events. Power can be disrupted.
Ice Storm	Low	Minor damage caused in December 1996.
Drought	Med	Need to develop a rationing plan for possible decreased well yield during dry summers of droughts.
Terrorism	Low	Need to be trained on suspicious activity/situations and suitable responses.
Construction accident	Med	Construction activities can hit pipes or appurtenances.
Chemical spill	Low	Complete wellhead protection plan.

Section 5.
Severity of Emergencies

System personnel should collaborate when determining the severity of an incident, but the person in charge of the emergency makes the ultimate decision. The information for making the decision will accumulate over time, and may result in changing the severity assessment.

Communicate each severity assessment immediately to all those dealing with the emergency. Make sure staff have cell phones, pagers, or radios when they are in the field.

Level 1: Routine Emergency (Definition)

Description: The City of Shelton water system considers the following as Level 1 Routine Emergencies:

Distribution line breaks.

Short power outages.

Minor mechanical or electrical problems.

Other minor situations where it is not likely that public health will be jeopardized.

Note: The system has specific response activities identified for the most of these types of emergencies, including proper sampling, flushing, disinfection, and pressure testing activities. System personnel are advised and are directed to work on the problem and are usually capable of resolving the problem within 24 hours. If it is determined that the problem will take longer than 24 hours to resolve and storage is likely to be drawn down below a safe operating level, the situation will be elevated to level II Emergency.

Level 2: Moderate Emergency (Definition)

Description: The City of Shelton water system considers the following to be Level 2 Low Concern Emergencies.

Disruption in supply such as a transmission main line break, pump failure with a potential for backflow, and loss or pressure.

Reserve storage is not adequate to handle disruption in supply.

An initial positive coliform or E.coli sample.

An initial primary chemical contaminant sample.

A disruption in chlorine/ chemical feed.

A minor act of Vandalism.

Drought, with a noticeable and continuing decline of water levels.

Level 3: Significant Emergency (Definition)

Description: The City of Shelton water system considers the following as Level 3 Significant Emergencies:

A verified acute confirmed coliform MCL or E. coli/fecal positive sample requiring immediate consideration of a health advisory notice to customers.

A confirmed sample of a primary contaminant requiring immediate consideration of a health advisory notice to customers.

A loss or complete malfunction of the water treatment facilities for the water source, including chlorination.

A major line break or other system failure resulting in a water shortage or requiring system shutdown.

An act of vandalism or terrorist threat such as intrusion or damage to a primary facility.

An immediate threat to public health of the customers requiring a health advisory.

Severe drought significantly affecting well production and potable availability.

Level 4: Catastrophic Emergency (Definition)

Description: The City of Shelton water system considers the following events to be Level 4 Catastrophic emergencies.

Earthquake that shuts down the system or impacts sources, lines, etc.

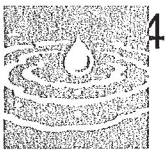
An act of terrorism possible contaminating the water system with biological or chemical agents.

Flood that infiltrates system facilities and sources.

Chemical spills within 2000 feet of the systems sources.

Wind storm that significantly damages power grid and/or system facilities.

Mudslide or other earth movement that causes failure of transmission or loss of water in well.



Section 6. Emergency Notification

3.4.1.1 Notification call-up lists

Use these lists to notify important parties of an emergency.

3.4.1.1.1 Local notification list

Local law enforcement	Day (360) 426 -4441	Night (360) 426 -4441
Fire department	Day (360) 426 -5533	Night 911
Ambulance service	Day 911	Night 911
Local Health Department Mason County Health	Day (360) 427 -9670	After hours (360) 427 -9670
Water testing laboratory Dragon Analytical Labs.	Day (360) 866 -0543	After hours (360) 866 -0543
Local emergency management Mason County Emergency Management	Day (360) 427 -7535	After hours 911
Water Field Supervisor Matt Deemer	Day (360) 432 -5187	Night (360) 490 -0610
News media contact: Shelton- Mason Journal	(360) 426 -4412	
Local radio station: KMAS	(360) 426 -1030	

State notification list

Service and repair notification list

Electrician Wave Length Electric	Day (360) 704 -8636	Night (360) 704 -8636
Electric utility PUD #3	Day (360) 426 -8255	Night (360) 426 -8255
Pipe & Fitting Supplier H.D. Fowler	Day (360) 377 -4507	Scott McLellan Night (360) 507 -9974
Pipe & Fitting Supplier Ferguson Waterworks	Day (360) 943 -7363	Todd Vaughn (360) 688-8482
Soil excavator Manke Excavation	Day (360) 426 -0834	Bucky Manke Night (360) 426 -4603
Equipment rental United Rentals	Day (360) 786 -8408	Night ( ) -
Gas Company Cascade Natural Gas	Day (800) 244-4351	Night (800) 552-0615
Other	( ) -	

Notification procedures

Notify water system customers

Who is Responsible:	The Public Works Director is responsible for making the decision to notify customers regarding a potential water shortage and the potential need for water use restrictions. The Director will consult with staff to make this decision. Once the decision has been made, the procedures for notification will be initiated.

Procedures:	Public Works Director confers with key staff to define problems and the content of the notification. Public Works Director consults with Southwest Region Washington State DOH drinking water staff regarding the problem and submit follow-up reporting consistent with WAC 246-290-480. Public Works Director designates staff to develop the message that will be delivered to the customers. Public Works Director designates staff to prepare door hangers, signs and radio public alert messages. Engineering and water system staff will continue to investigate problem, identify solutions and make repairs as necessary. The public alert notification will be distributed by: 1. Field staff placing "public alert notices" on doors and along travel routes. 2. Staff will place signs on main travel routes into the community. 3. The Public Works Director (or his designee) will contact KMAS am radio and request the issuance of a public alert message regarding the water system situation and a request for the public's cooperation. 4. Administrative support personnel will provide a pre-scripted message to phone callers and "log in" each phone call. Public Works Superintendent and Water Lead Worker will continuously update the City Engineer/Public Works Director on the status of the water system. Once water system issues have been resolved, re-notify customers the problem has been resolved.

Alert local law enforcement, state drinking water officials, and local health

Who is Responsible:	Public Works Superintendent Mike Albaugh (and/or his representative)
Procedures:	1. Brief with the Public Works Director and/or the City Engineer regarding the status of the situation, afterwards contact the City of Shelton Police Department and request their assistance in notifying the surround law enforcement agencies. 2. Contact local representatives for the Washington State Department of Health to report the incident. Southwest Region: (360) 664-0768 consistent with recordkeeping and reporting requirements identified in WAC 246-290-480. 3. Contact Mason County Health Department to report the incident. Mason County Health: (360) 427-9670 ext 274.

Contact service and repair contractors

Who is Responsible:	Public Works Superintendent Mike Albaugh (and/or his representative)
Procedures:	1. Brief with the Public Works Director and/or the City Engineer regarding the situation. Secure approval for the proposed remediation efforts. Contact service and repair contractors (and/or vendors as needed) on the City's Approved Response Providers list to secure materials and services as necessary to initiate and complete repairs.

Contact neighboring water systems (if necessary)

Who is Responsible:	Public Works Superintendent- Mike Albaugh (and/or his representative)
Procedures:	1. Notify the Public Works Director and/or the City Engineer of the situation. After briefing, proceed with the notification of the managers of adjacent water systems as necessary.

Procedures for issuing a health advisory

Who is Responsible:	Public Works Director and/or City Engineer will determine if there is a basis for consideration of a "Health Advisory" based on field evaluations provided by the Superintendent and/or Water Lead Worker.
Procedures:	1. The Public Works Director and/or the City Engineer will make the determination there may be a basis for the establishment of a "Health Advisory". 2. First point of contact will be made with DOH Coliform Violation Contact – Regina Grimm (360) 236-3035. 3. Second point of contact Washington State DOH Southwest Regional Office - - (360) 236-3030. 4. Subsequent contacts to the media to disseminate information. i. Field staff placing "Health Advisory" on doors and along travel routes. ii. Staff will place signs on main travel routes into the community. iii. The Public Works Director (or his designee) will contact KMAS am radio and requests issuance of the water "Health Advisory" notice and request to curtail water use. 5. Administrative support person will provide a pre-scripted message to phone callers and log in each phone call.

Section 7.
Water Quality Sampling

If you suspect contamination, notify and work with the local health department and our regional office to identifythe testing you should do. This may help prevent illness or even death.

3.4.1.1.2 Water quality sampling

Sampling parameter	Do we have procedures?	Basic sampling steps (sites, frequency, procedures, lab requirements, lab locations, contacts, and so on.)
Coliform Bacteria	Yes	As established by WAC 246-290-300
Heterotrophic Plate Count (HPC)	Unknown	
Chlorine Residual	Yes	As established by WAC 246-290-300
Chlorine Demand	Unknown	
Nitrate or Nitrite	Yes	As established by WAC 246-290-300
Total Organic Carbon (TOC)	Yes	As established by WAC 246-290-300
Total Halogenated Organic Carbon (TOX)	Unknown	
Cyanide	Unknown	

Section 8.
Effective Communication

Communication with customers, the news media, and the public is a critical part of emergency response.

3.4.1.2 Designated public spokesperson

Designate a spokesperson (and alternates) to deliver messages to the news media and the public (see Section 6 for news media contacts in local notification list).

3.4.1.2.1 Designate a spokesperson and alternates

Spokesperson	Alternate 1	Alternate 2
Mayor (or Acting Mayor)	City Administrator	Public Works Director

Key messages

Develop possible messages in advance, and update them as the emergency develops:

- We are taking this incident very seriously and doing everything we can to resolve it as quickly as possible.
- Our Primary concern is protecting the health of the residents of the City of Shelton.
- Another important concern is keeping the system operational and preventing secondary damage.
- What we know right now is _____
- The information we have is incomplete. We will keep you informed as soon as we know more.
- We have contacted state and local officials to help us respond effectively.
- If you think you may be ill or need medical advice or assistance, contact a physician.
- We are sampling the water and doing tests to determine whether there is a contamination.

Health advisories

During events when water quality and human health are in question, it may be necessary to issue a health advisory that gives advice or recommendations to water system customers on how to protect their health when drinking water is considered unsafe. These advisories are issued when the health risks to the consumers are sufficient, in the estimation of those responsible for the operation of the water system (or state or local health officials), to warrant such advice.

Health advisories usually take the form of a drinking water warning or boil water advisory. Communication during these times is critical. Health advisories should always be well thought out and provide very clear messages.

The Division of Drinking Water has put together a number of tools, including fact sheets, brochures, forms, and templates to help prepare for a health advisory. These are on the Web at: http://www.doh.wa.gov/ehp/dw

Section 9.
The Vulnerability Assessment

This is an evaluation of each water system component to identify weaknesses or deficiencies that may make them susceptible to damage or failure during an emergency. It also assesses facilities for security enhancements that may guard against unauthorized entry, vandalism, or terrorism.

3.4.1.2.2 Facility vulnerability assessment and improvements identification

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Source	Three operable wells, ranging from 200-780' deep supply the City's system. They are located within the City limits and its developed areas. The sources are in excellent condition.	The wells are vulnerable to contamination from above ground activities. The well houses are not highly secure so they could be vulnerable to acts of vandalism.	Implement a wellhead protection program and conduct regularly reviews – up date as needed.	Upgrade well houses: Install fencing, and deadbolts. Secure well houses to foundation and install security lighting around well house.
Storage	Storage reservoirs are in sound condition, but reservoir hatches could be accessed and locks could be broken.	Vandals could access reservoir hatches. Also, the reservoir could be prone to shaking and settling resulting from an intense earthquake.	Provide earthquake strapping to secure reservoir to the foundation.	Install fencing, lighting, and signage to protect against unauthorized entry and access to reservoir hatches.
Treatment	There is a chlorination system in each well/pump-house. These are in sound operating condition.	Chlorination systems are subject to power outages and could be vandalized if a pump-house is broken into. Tanks are not secured and may tip over during a strong earthquake.	Purchase back-up generators as needed for facilities that currently do not have dedicated generators. Secure tanks with earthquake straps.	Install fencing, lighting, signage and a monitored security system to protect against unauthorized entry.
Pump house and pumping facilities	The pump-houses and pumping facilities are in good condition.	The pump-houses do not have a monitored security system, fencing or sufficient lighting and is prone to vandalism.	Install a monitored security system, re-evaluate existing lighting and fencing.	Install a security system, fencing, lighting, and signage to protect against unauthorized entry.

Computer and telemetry system	Computer and telemetry systems are located in the water systems main office. All systems are in good operating condition.	Main office security measures could be strengthened. Also, computers could be better protected against cyber attack or hacking.	Evaluate computer system and telemetry equipment. Identify areas of improvement.	Install lighting and security system to guard against theft and vandalism. Hire consultant to secure computers and telemetry.
Other considerations				

Section 10.
Response Actions for Specific Events

In any event, there are a series of general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate action to reduce injuries, save lives, and prevent system damage.
3. Make repairs based on priority demand.
4. Return your system to normal operation.

The following tables identify the assessment, set forth immediate response actions, define necessary notifications, and describe important follow-up actions. This document is only intended to be used as a reference checklist during any given emergency. As such, all of the elements identified herein may (or may not) be applicable to the event at hand. Staff needs to use their good judgment when evaluating what actions are appropriate for each specific event.

A. Power outage

Assessment	The City of Shelton water system is vulnerable to power outages experiencing outages each year that may last several hours. Wells #3 and #4 have a back-up generator that could also be used at the Angleside Booster station. Well #1 and other components within the system can be powered by generators as needed. Most of the time, storage is able to supply the system adequately until power is restored.
Immediate actions	1. Assess whether the outage is likely to last more than 6 hours. If no, be on alert for changing conditions and monitor storage tanks. If yes, complete the following steps: 2. Call on availability of back-up generator. 3. Obtain generator(s) if available. 4. Connect generator(s) to system and resume operations. 5. Implement water shortage response actions to inform customers to cut back on water usage until power is restored.
Notifications	1. Mason County PUD #3 – Let them know that a public water system is experiencing an outage and the generator(s) will be turned on until power is restored. 2. Gateway Rentals – Obtain generator(s) 3. Customers – cut back on water usage until power is restored.
Follow-up actions	1. Turn off back-up generator and disconnect. 2. Return system to general power supply. 3. Inspect reservoirs and pumping facilities to ensure proper operation. 4. Return generator(s) to Gateway Rentals.

B. Transmission or main break

Assessment	1. Water crew respond to report of broken main 2. Superintendent and/or Water Lead Worker evaluate staff needs and the materials required to control and repair the break.
Immediate actions	1. Assess the severity of the break and need to involve other parties. 2. Manipulate valves to isolate main and eliminate the flow. 3. Contact 911 to notify emergency providers of situation. 4. Contact on-call crew to respond. 5. Inventory materials and equipment needed for repairs – secure materials and equipment as needed. 6. Schedule repair crews for shift if required.
Notifications	1. Contact 911 to report road closures and debris. 2. Brief with Public Works Director, City Engineer and elected officials. 3. Contact adjoining property owners. 4. Contact KMAS with Public Alert Notification. 5. Contact Health Care Providers and other operations like to experience significant impacts due to loss of service.
Follow-up actions	1. Notify 911 when repairs are complete and the road is cleared and open and water flow has been restored. 2. Flush/ disinfect system as needed. 3. Notify adjoining properties when water is available.

C. Distribution line break

Assessment	1. Water Dept. representative responds to report of line break and assesses the situation. 2. Manipulate valves to isolate break and eliminate flow. 3. Superintendent and/or Lead Worker evaluate staff needed and material required to repair break. 4. Contact 911 to notify emergency providers of situation. 5. Determine if this is a City line or a privately owned line. 6. Brief Public Works Director/ City Engineer. 7. Inventory materials and equipment needed for repairs – secure materials and equipment as needed (or contact line owner) 8. Contact on-call crew for respond effort. 9. Schedule repair crews for shift if required.
Immediate actions	1. Contact 911 for road closure and debris flows. 2. Inventory materials and equipment needed for repairs – secure materials and equipment as needed. 3. Contact on-call crew for respond effort/ or contact line owner. 4. Contact adjoining impacted property owners. 5. Contact KMAS for radio advisory notice. 6. Schedule repair crews for shift if required.
Notifications	1. Contact 911 for road closure and debris. 2. Contact adjoining impacted property owners. 3. Contact KMAS for radio advisory notices. 4. Contact Health Care Providers and other operations like to experience significant impacts due to loss of service.
Follow-up actions	1. Notify 911 when repairs are complete and the road is open. 2. Flush/ disinfect system as needed. 3. Notify adjoining properties when water is available.

D. Chlorine treatment equipment failure

Assessment	1. Water Department staff respond to system alarms. 2. Superintendent and/or Lead Worker evaluate the situation and the staff and material required for repairs. 3. Contact 911 to notify emergency providers of situation (as needed). 4. Brief Public Works Director/ City Engineer on the situation.
Immediate actions	1. Contact 911 to advise of facility closures or regional evacuations. 2. Contact adjoining impacted property owners. 3. Contact KMAS for radio advisory notices. 4. Contact on-call crew for respond effort. 5. Inventory materials and equipment needed for repairs – secure materials and equipment as needed. 6. Schedule repair crews for shift if required.
Notifications	1. Contact 911 for EMS notification and assistance as needed. 2. Contact adjoining impacted property owners. 3. Contact KMAS for radio advisory notices.
Follow-up actions	1. Notify 911 when repairs are complete and the site is secure. 2. Flush/ disinfect/ clean spill area as needed. 3. Notify adjoining properties when water is available.

E. Treatment equipment

Assessment	1. Water Dept. representatives respond to system alarms. 2. Superintendent and/or Lead Worker evaluate the situation and staff and material required for repairs. 3. Contact 911 (if needed) to notify emergency providers of situation. 4. Brief Public Works Director/ City Engineer. 5. Inventory materials and equipment needed for repairs – secure materials and equipment as needed.
Immediate actions	1. Contact 911 to advise of facility closures. 2. Contact adjoining impacted property owners. 3. Inventory materials and equipment needed for repairs – secure materials and equipment as needed. 4. Contact on-call crew for respond effort. 5. Schedule repair crews for shift work if required. 6. Contact KMAS for radio advisory notices.
Notifications	1. Contact 911 for EMS notification and assistance as needed. 2. Contact adjoining impacted property owners 3. Contact KMAS for radio advisory notices.
Follow-up actions	1. Notify 911 when repairs are complete and the site is secure. 2. Flush/ disinfect/ clean area as needed. 3. Notify adjoining properties when water is available.

F. Source pump failure

Assessment	1. Water Dept. representatives respond to system alarms. 2. Superintendent and/or Lead Worker evaluate the situation. 3. Brief Public Works Director/ City Engineer. 4. Superintendent and/or Lead Worker evaluate staff needed and material required for repairs – contact outside contractors (and/or vendors) as needed. 5. Contact 911 (if needed) to notify emergency providers of situation.
Immediate actions	1. Manipulate valves to provide alternative water source feed to area impacted by pump failure. 2. Inventory materials, equipment and/or repairs – secure materials, equipment and/or begin repairs as needed. 3. Contact on-call crew for respond effort. 4. Schedule repair crews for shift work if required. 5. Contact KMAS for radio advisory notices.
Notifications	1. Contact 911 for EMS notification and assistance as needed. 2. Contact adjoining impacted property owners. 3. Contact KMAS for radio advisory notices.
Follow-up actions	1. Repair and/ or replace failed pump. 2. Test operations. 3. Notify 911 when work is completed.

G. Microbial (coliform, *E. coli*) contamination

Assessment	1. Water Dept. representatives conduct routine water quality testing. 2. Brief Public Works Director/ City Engineer regarding testing results, as necessary. 3. Contact Washington DOH to notify of situation. 4. Contact Mason County Health to notify of situation.
Immediate actions	1. Identify and eliminate potential contaminants sources – secure materials and equipment as needed. 2. Superintendent and/or Lead Worker will evaluate staff and material needs; and flushing or other means for remediation. 3. Superintendent and/or Lead Worker evaluate staff needs and opportunities for disinfection. 4. Contact on-call crew for respond effort. 5. Schedule repair crews for shift if required.
Notifications	1. Coliform Violation Contact: Regina Grimm 2. S.W. Regional Office DOH. 3. Mason County Health Department. 4. Issue a "Boil Water Notification" if appropriate. 5. Contact Media. 6. Post notices 7. Door hangers.
Follow-up actions	1. Follow-up Testing. 2. Follow-up Disinfection. 3. Follow-up Documentation.

H. Chemical contamination

Assessment	1. Water Dept. representatives conduct routine water quality testing 2. Brief Public Works Director/ City Engineer regarding testing results, as necessary. 3. Secure the site. 4. Contact Washington DOH to notify of the situation. 5. Contact Mason County Health to notify of situation. 6. Contact DOE if necessary.
Immediate actions	1. Identify and eliminate potential contaminants sources – secure site, materials and equipment as needed. 2. Superintendent and/or Lead Worker will evaluate staff and material needs; and flushing or other means for remediation. 3. Superintendent and/or Lead Worker evaluate staff needs and opportunities for disinfection. 4. Contact on-call crew for respond effort. 5. Schedule repair crews for shift if required.
Notifications	1. Contact 911 to report a chemical spill. 2. Contact Washington DOH. 3. Contact DOE (as appropriate) 4. Contact EPA (as appropriate)
Follow-up actions	1. Follow-up Testing 2. Follow-up Disinfection 3. Follow-up Documentation.

I. Vandalism or terrorist attack

Assessment	1. Assess the site and determine the nature and the extent of the incident. 2. Assess materials and equipment required for repairs. 3. Identify site conditions – do not destroy possible evidence.
Immediate actions	1. Call 911 to report vandalism or terrorist concerns. 2. Contact on-call crew and equipment as needed for repairs. 3. Secure the site to prevent further deterioration of the water system and don't disturb evidence that may have a bearing on criminal or terrorist investigations.
Notifications	1. Call 911 to report incident. 2. Call KMAS for radio advisory warnings as necessary. 3. Contact adjoining property owners as needed to secure site, evacuate area or to notify of water availability.
Follow-up actions	1. Contact 911 with "all clear" notification. 2. Contact adjoining property owners with "all clear" notification.

J. Reduction or loss of water in the well

Assessment	1. Ongoing monitoring of static water levels in the wells and water reservoirs. 2. Determine if trends indicate water availability and supplies will likely drop below pre-established minimum levels. 3. Determine alternate sources and acceptable means to provide an alternative supply of water into the system circuitry. 4. Determine if a "low water" advisory notice or "water rationing" measures need to be considered.
Immediate actions	1. Call 911 to notify emergency response crews. 2. Determine the probable reason for the loss of water. 3. Identify short-term and long-term alternative sources to offset losses. 4. Implement back feed modifications to sustain system operation. 5. Notify customers of restrictions such as lower pressure, limited supplies.
Notifications	1. Call 911 to report incident. 2. Call KMAS for radio advisory warnings as necessary. 3. Contact impacted customers as needed to notify of water availability or restrictions.
Follow-up actions	1. Contact 911 with notification of normal water levels and pressures. 2. Contact KMAS for radio advisory on water level – voluntary rationing. 3. Contact Shelton- Mason County Journal for public announcement of change of status.

K. Drought

Assessment	1. Ongoing monitoring of static water levels in the wells, water reservoirs, lakes and streams. 2. Determine if trends indicate water availability and supplies will likely drop below pre- established minimum levels or minimum flow rates. 3. Determine any viable alternate sources and acceptable back feed system circuitry. 4. Determine if a "low water" advisory notice or "water rationing" measures need to be considered.
Immediate actions	1. Identify short-term and long-term alternative sources to offset losses and meet immediate needs. 2. Implement alternative back feed modifications to sustain system during shortage. 3. Notify customers of restrictions such as lower pressure, limited supplies, water rationing or availability restrictions.
Notifications	1. Newsletters with monthly water billing invoices. 2. Newsletters with Mason County PUD#3 monthly invoices. 3. Shelton-Mason County Journal 4. KMAS radio
Follow-up actions	1. Shelton-Mason County Journal notice at the end of the "Drought" when water levels have returned to normal static levels. 2. KMAS radio coverage regarding the end of the "Drought".

L. Flood

Assessment	1. Monitor weather forecasts for flood warnings. 2. Monitoring flood levels during storm events. 3. Monitor coliform counts within the system in the floodplain area.
Immediate actions	1. Brief Public Works Director and City Engineer. 2. Contact DOH regarding sampling results. 3. Contact Emergency Management Services – as needed. 4. Issue Health Advisory or Boil Water Warning.
Notifications	1. Coliform Violation Contact: Regina Grimm 2. S.W. Regional Office DOH. 3. Contact media. 4. Post notices. 5. Door hangers.
Follow-up actions	1. Follow-up Testing per WAC 246-290-320. 2. Follow-up Disinfection. 3. Follow-up Documentation per WAC 246-290-320. 4. Contact 911 with notification of acceptable water reports. 5. Contact KMAS for radio for public advisory announcements. 6. Contact Shelton-Mason County Journal for public announcements of change of status.

M. Earthquake

Assessment	1. Inspection of all facilities immediately after seismic event. 2. Identify and report and damage caused by the event. 3. Photograph sites – prepare summary damage report.
Immediate actions	1. Evaluate and prioritize damages based on threat to public health and safety. 2. Brief with Public Works Director and City Engineer. 3. Contact 911 to notify of threats to public health and safety. 4. Stabilize, secure or protect situations from further damage and the public from injury. 5. Evaluate the need to drain (or lower water levels) in cracked or leaking reservoirs. 6. Manipulate system configuration to provide alternate sources as needed. 7. Lower reservoir levels, isolate and drain mains and any other actions that may be required to reduce the possibility of injury or additional damage to the system.
Notifications	1. Contact 911 with initial assessments. 2. Brief elected officials of damage report. 3. Contact Emergency Management Services as necessary. 4. Contact KMAS with public advisory announcement. 5. Post signage as needed.

Follow-up actions	1. Follow-up with a more detailed inspection of facilities. 2. Follow-up water quality testing. 3. Follow-up flow and pressure tests as needed.

N. Hazardous materials spill in vicinity of sources or system lines

Assessment	1. Inspect and secure site. 2. Contact 911 as needed. 3. Ascertain the composition of the spill (if possible). 4. Contain the spill (if possible)
Immediate actions	1. Evaluate the spill for the threat to public health and safety. 2. Isolate the area influenced by the spill – from the rest of the system. 3. Brief with Public Works Director and City Engineer. 4. Contact 911 to notify of threats to public health and safety. 5. Stabilize, secure or protect situations from further damage and the public from injury. 6. Identify the responsible parties. 7. Secure their proposed remediation plan and schedule. 8. Implement system reconfiguration to back feed system as needed. 9. Determine possibility of impacts to the City system.
Notifications	1. Brief elected officials of damage report. 2. Contact Emergency Management Services and/or Fire Department as necessary. 3. Contact DOE as needed. 4. Contact KMAS with public advisory announcement. 5. Post signage as needed.
Follow-up actions	1. Follow-up inspection of facilities. 2. Follow-up water quality testing to establish baseline values. 3. Follow-up soils analysis by hazardous material experts. 4. Follow-up with involved governmental agencies. 5. Reactivate the system when no-threat has been determined.

O. Electronic equipment failure

Assessment	1. Respond to system alert, or notification of equipment failure. 2. Ascertain the basis of the failure (if possible). 3. Evaluate manual over-ride opportunities to maintain system operation. 4. Isolation of failed equipment.
Immediate actions	1. Notify Wave Length Electric as needed for repairs or spare parts. 2. Repair or replace malfunctioning equipment.
Notifications	1. Brief elected officials of damage report. 2. Contact Emergency Management Services and/or Fire Department as necessary. 3. Contact KMAS with public advisory announcement. 4. Post signage as needed.
Follow-up actions	1. Follow-up testing. 2. Follow-up system evaluation.

P. Cyber-attack

Assessment	1. Respond to perceived threat and/or attack. 2. Can the water system be isolated from the server. 3. Evaluate impacts of attack on system.
Immediate actions	1. Isolate the electronic components from outside influence. 2. Contact City IS/IT support staff.
Notifications	1. Brief elected officials of damage report. 2. Contact Emergency Management Services and/or Fire Department as necessary. 3. Contact 911 as needed. 4. Contact KMAS with public advisory announcement. 5. Post signage as needed.
Follow-up actions	1. Follow-up testing. 2. Follow-up system evaluation.

Section 11.
Alternative Water Sources

Intertie to adjacent water supply system

Water systems within ¼ mile of our system	Feasibility of connecting
The Port of Shelton owns and operates 2 water systems within the UGA. One is at Sanderson Field. The other is on Johns Prairie but is not in use.	None at present

Emergency source evaluation
Complete this evaluation form for each emergency source you may activate in an emergency:

Source Number:	**Source Name:**
Engineering design approval status:	
Is the emergency source an intertie with an approved Group A water system? **Yes or No** **If yes,** skip the remainder of this evaluation.	
The person(s) in authority who will decide to activate the emergency source and begin supplying the distribution system:	
Describe the conditions when you will activate and use the emergency source to supply the distribution system:	

The operational steps you will take before you activate and use the emergency source to supply the distribution system:
The water quality sampling you perform on an on-going basis and the sampling you will perform immediately before activating the emergency source to supply the distribution system:
Steps the system will take to notify the public and the Office of Drinking Water before activating the emergency source to supply the distribution system, including the content of the public notice:

Copy this table for each emergency source:

Attribute of Source No _____	Current Status
Is the emergency source physically connected to the distribution system?	**Yes or No**
Is the emergency source a drilled and cased well?	**Yes or No**
Is there an isolation valve between the source and the distribution system?	**Yes or No**
If so, is the valve secured in the fully closed position?	**Yes or No**
Is the motor starter locked-out and tagged-out in the off position isolating the pump from the power supply?	**Yes or No**

3.4.1.2.3 Summary of all possible alternative source(s) of water

Alternative source	Names	Phone	Availability	Is the water safe to drink?
Shelton Springs	City of Shelton	(360)432 -5187	available	At Present
Bottled Water Suppliers	Mountain Mist	(877)233 -4807	Trucks with cases of 1 gallon jugs – 5000 gallons/truck	Yes
		( ) -		Yes or No

Section 12.
Curtailing Water Usage

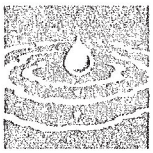
Curtailing water use

Water curtailment measures	Actions
Utilize Reclaimed Water where possible as an alternative.	The City recently completed a satellite water reclamation facility near Sanderson Field. As this becomes operable, reclaimed water will be made available to those local customers for uses other than consumption.
New High Efficient Water Fixtures	Through the building permit process, the City has required new construction to comply with the 2009 Uniform Plumbing Code
Customer Water Consumption History	The City is making water consumption history information available to each customer on their monthly water invoices.
Restricting outside water usage including: irrigation and yard maintenance, car washing, etc.	Upon making the decision that curtailment is necessary: • Draft door hanger with curtailment messages. • Post on customers doors. • Contact KMAS to provide public alert message. • Monitor system usage and check meters if needed. • Continue as long as required.

Section 13.
Returning to Normal Operation

Returning to normal operations

Action	Description and actions



Section 14.
Training and Rehearsals

Training

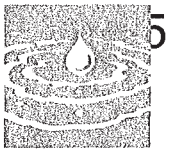
Identify staff training needs and expectations.

Position	Training needs and expectations
Water System Manager	
Water System Manager	
Field support	
Administrative support	

3.4.1.2.4 Emergency rehearsals

Schedule for drills, tabletop exercises, and other ways to practice emergency response:

Event	Description	People and organizations involved	Date



5 Section 15. Plan Approval

3.5.1.1.1 Plan approval

This plan is official when the following people review, approve, and sign it:

Name and Title	Signature	Date

Appendix 8B

O&M INFORMATION FOR SCADA AND CHLORINATION SYSTEMS

O&M Information for SCADA System

BROWN AND CALDWELL

701 Pike Street, Suite 1200
Seattle, WA 98101
Tel: 206-624-0100
Fax: 206-749-2200

Technical Memorandum

Prepared for: City of Shelton, Washington

Project Title: SCADA System Upgrade

Project No: 138065.300.001

Technical Memorandum No. 1

Subject: System Operation

Date: December 22, 2009

To: Brian Dobie, Operations Lead

From: Bruce Johnston, P.E.

Copy to: Michael Michael (City of Shelton)
Francis Yuen (Brown and Caldwell)
Project File

Prepared by: Bruce M. Johnston, Project Manager, P.E. No. 44150, exp. 3/11/2011
Name and Title, License No., Expiration

Reviewed by: Brian Dobie, City of Shelton Water Department Crew Lead
Name and Title

1. INTRODUCTION

This Technical Memorandum 1 (Tech Memo 1) describes the operation of the new supervisory control and data acquisition (SCADA) control system.

The purpose of this project is to develop a replacement water SCADA and telemetry (WS&T) system for the city of Shelton (City). The principal goals are increased system reliability by replacement of the central PC-based master computer and installation of a new PLC-based master terminal unit (MTU). A new Wonderware-based human-machine interface (HMI) server was provided and programmed and an additional Maple System-based touch-panel operator interface terminal (OIT) was added to provide a level of redundancy. The HMI and the OIT provide similar functionality. Most of the functionality of the old system has been incorporated into the new system.

The valves and pumps are colored according to the City's established color scheme. The pump color is green for running and red for stopped. The valves are green when open and red when closed. Alarm color is coded according to priority. Alarm notifications are red for high priority and dark yellow for low priority alarms.

It is assumed that operators shall be trained appropriately and will understand the consequences of any changes they make to the system.

2. GRAPHIC DISPLAY

The primary control interface to the new SCADA system will be through the Wonderware-based HMI on the new server in the shop office. The main HMI overview screen (shown in Figure 1) provides a quick snapshot of the status of tanks, pumps, and valves including an indication of any alarm that might be active and need attention.

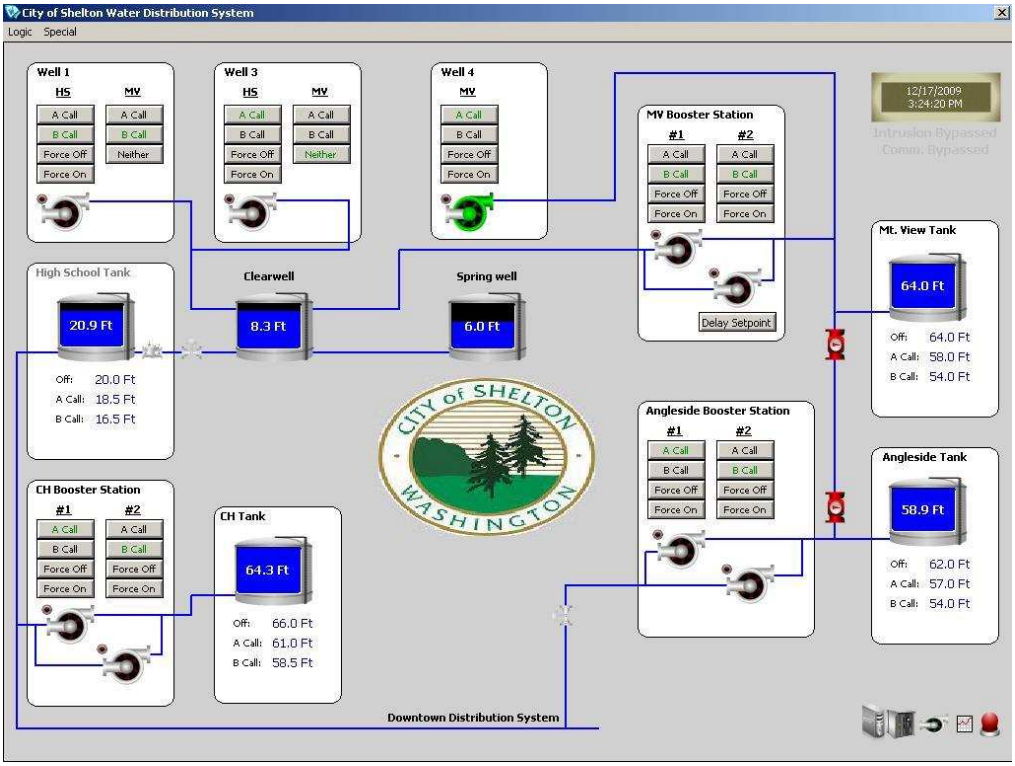


Figure 1. HMI overview screen

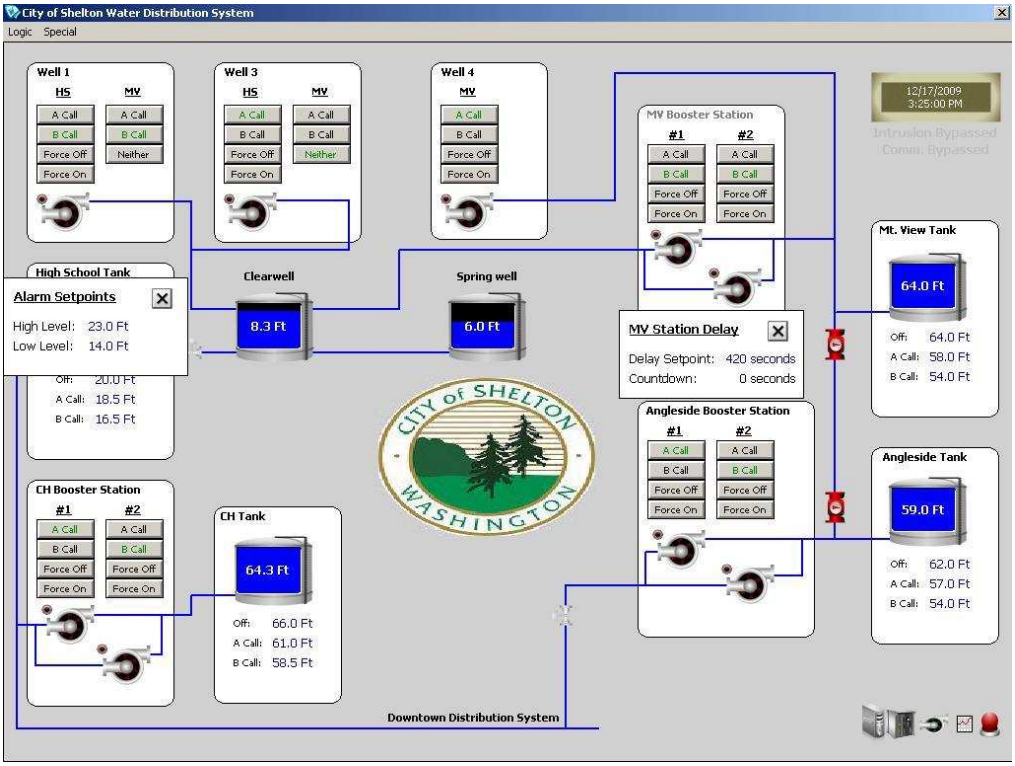


Figure 2. HMI overview screen with tank level alarm setpoint pop-up windows

The main OIT overview screen (shown in Figure 3) shares many of the same graphical intents as the HMI but, due to the limitations of the small touch-screen, has far less-detailed graphics.

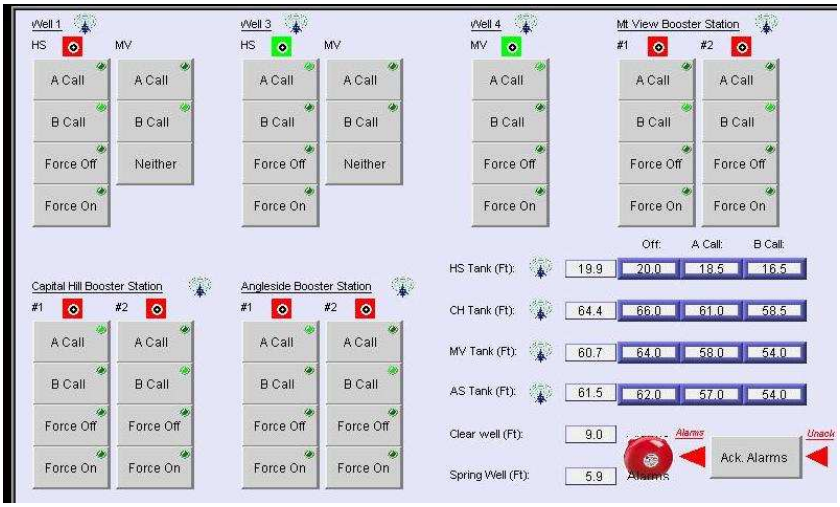


Figure 3. OIT overview screen

2.1 Main HMI and OIT Control Screens

The following subsection provides a description of graphic display indicators that appear on both the HMI and OIT control screens.

2.1.1 Pump Status Indication

The pump's color indicates its running status. At the HMI, green indicates that the pump is running and red (blades) indicates the pump is not running (shown in Figure 5). If there is an associated error, the circular indication lamp to the upper left of the pump shows red..

Figure 4. HMI pump running status

At the OIT, the pump running status is represented by the red and green indication lamps (shown in Figure 6).

Figure 5. OIT pump running status

2.1.2 Tank Level Indication

The tank level is communicated from the remote terminal units (RTUs) and displayed on both the main overview screen of the HMI (shown in Figure 1) and the OIT (shown in Figure 3). Tank level does not display correctly if there is a communication failure. A red flashing background indicates an error associated with the tank. The operator will need to check the alarm list to verify error. If a communication failure occurs, tank levels will need to be manually checked.

2.1.3 Alarm Screen

The HMI provides an alarm icon (shown in Figure 6) that can be clicked on to bring up the alarm screen (shown in Figure 7).

Figure 6. HMI alarm icon

Alarms can be reviewed, acknowledged, and silenced through this screen. The system provides a filter option that allows the operator to view the alarms by alarm group, review the alarm history as well as active alarms

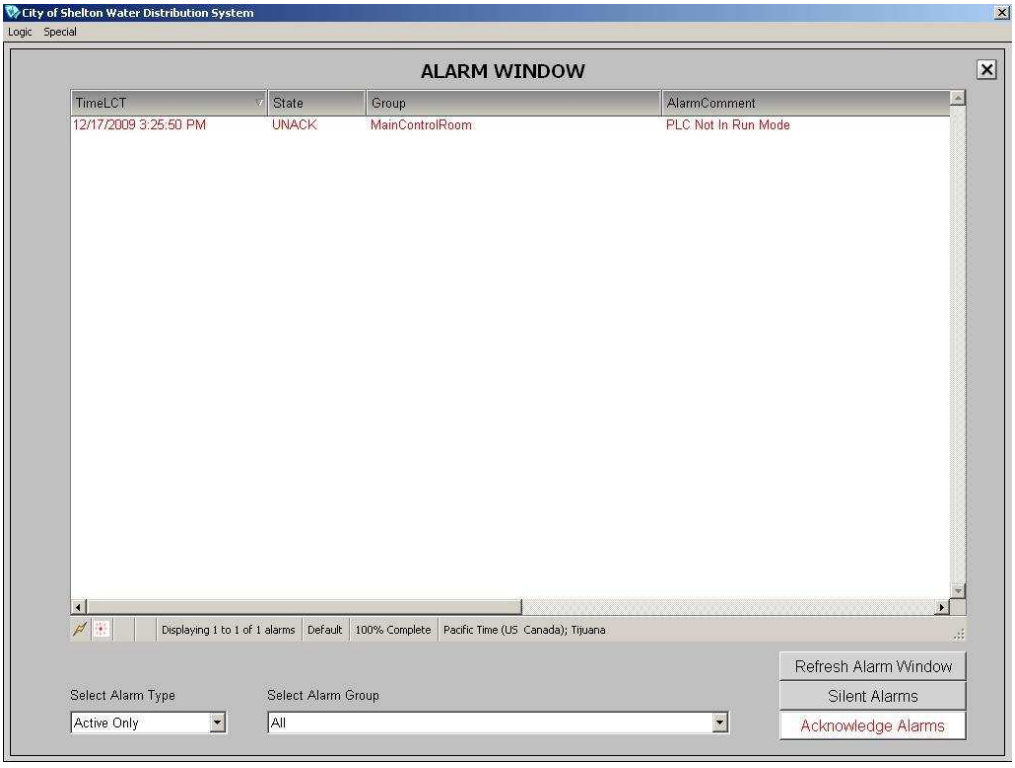


Figure 7. HMI alarm screen showing an unacknowledged alarm

The OIT alarm management interface can be accessed via the alarm button in the lower right region of the OIT overview screen (shown in Figure 8). The rightmost red arrow labeled "Unack" flashes when there is new unacknowledged alarm in the system. To its left there is an "Ack. Alarms" button for acknowledging new alarms. Further left there is another red arrow labeled "Alarms" that flashes when there are active alarms in the system. To bring up the OIT alarm screen (shown in Figure 9), click on the alarm icon with the animated "Alarms" text at the leftmost location.

Figure 8. OIT alarm management interface

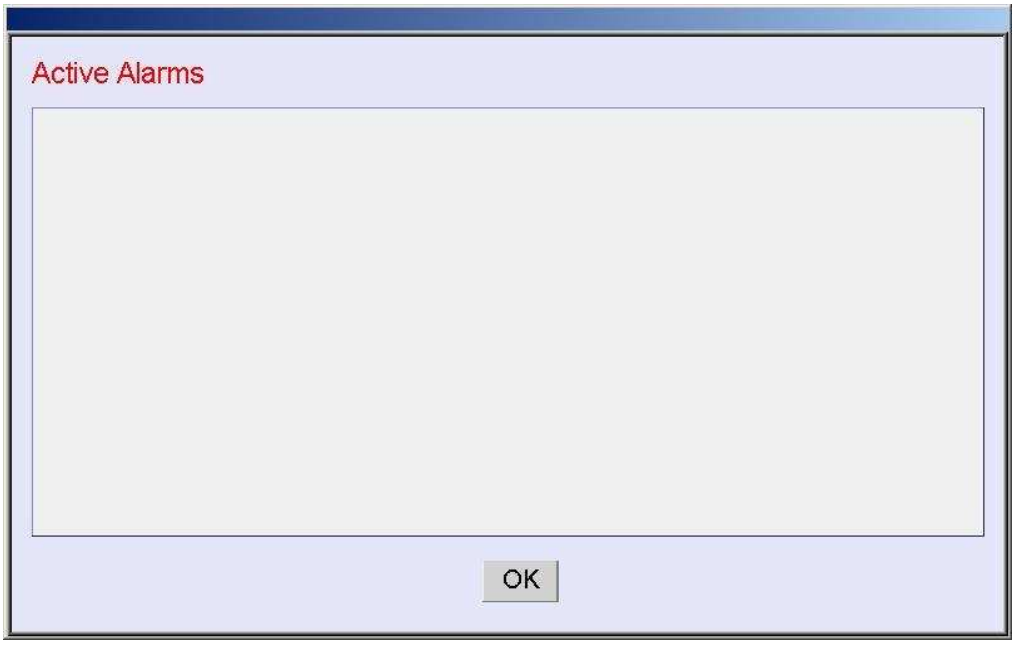


Figure 9. OIT alarm screen

Indicators that Appear Only on the HMI Screen

The following subsection provides descriptions of indicators that appear only on the HMI and not on the OIT due to the size limitation of the OIT screen described above.

2.1.4 Manual Valve Indication

The valves shown on the overview screen between Mountain View (MV) tank and Angleside (AS) tank are not linked to the actual valves and do not have any impact on the system. They can be clicked on to manually indicate the status of the valve. The color of the valve changes to green when open and red when closed as shown in Figure 10. *(Note: This is only a reminder for the operators to help them remember the status of the valves.)*

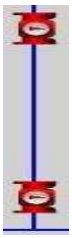


Figure 10. HMI Manual Valves

2.1.5 Trending Screen

The HMI provides a trending icon (shown in Figure 11) that can be clicked on to bring up the real-time and historical trend screen (shown in Figure 12).

Figure 11. HMI trending icon

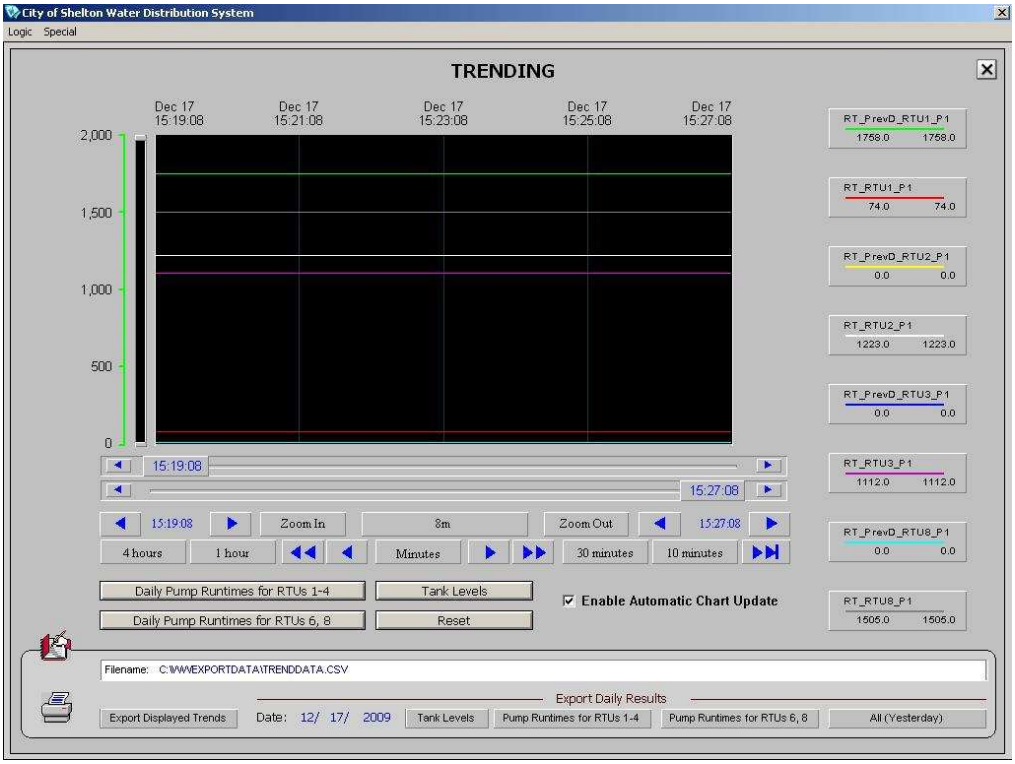


Figure 12. HMI trending screen

The trending screen allows the user to check tank levels and pump runtimes during a specified period of time. Legends to the right of the trend chart shows the pen color and the associated tag, with the corresponding value of the tag at the left and right sides of the trend chart where the two scooters are parked at.

For the trend chart to dynamically update itself to the current time, check the "Enable Automatic Chart Update" box. To change trending setup, uncheck this box and click on the trending chart. A configuration pop-up box will appear where chart start time, duration, and pen assignements can be specified.

There are three pre-configured trend setups (daily pump runtimes for RTUs 1-4, daily pump runtimes for RTUs 6 and 8, and tank levels) which can be accessed by clicking on the three buttons with the associated labels. A forth button labeled "Reset" will reset the trend chart with no pen assignment.

At the lower region of the trending screen, there is a trend data export interface (shown in Figure 13). The trend data as currently displayed on the trend chart can be exported to a text file in CSV format as specified in the Filename text box by clicking on the "Export Displayed Trends" button. To export daily results, enter the desired month, date, and year and then click on any of the four buttons for the corresponding output.

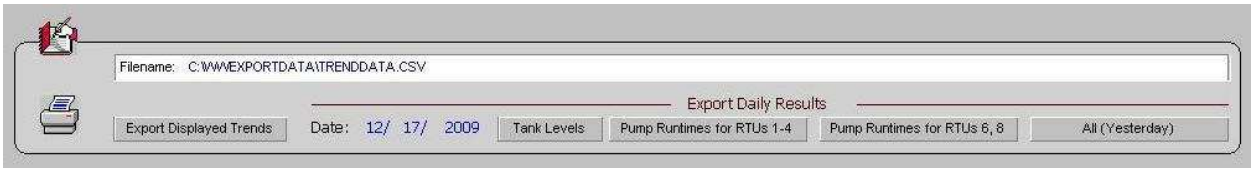


Figure 13. HMI trend data export interface

Clicking on the printer icon will display and print the daily report at the default printer. *(Note: The system is set up to automatically print out the daily report at the end of each day. Therefore it is not necessary to click on the button every day*

to get the daily report. Rather, this button serves as a backup report printing function in case the system fails to print out the daily report)

2.1.6 MTU & Telemetry Systems Settings Screen

The HMI provides a MTU & telemetry systems settings icon (shown in Figure 14) that can be clicked on to bring up the MTU & telemetry systems settings screen (shown in Figure 15). This screen allows the user to check on radio and PLC communication statuses throughout the system, bypass communication from the MTU to each RTU, remotely bypass intrusion alarming, configure RTU communication timer settings, monitor simulation mode status, manage and monitor watchdog status at MTU.

Figure 14. HMI MTU & telemetry systems settings icon

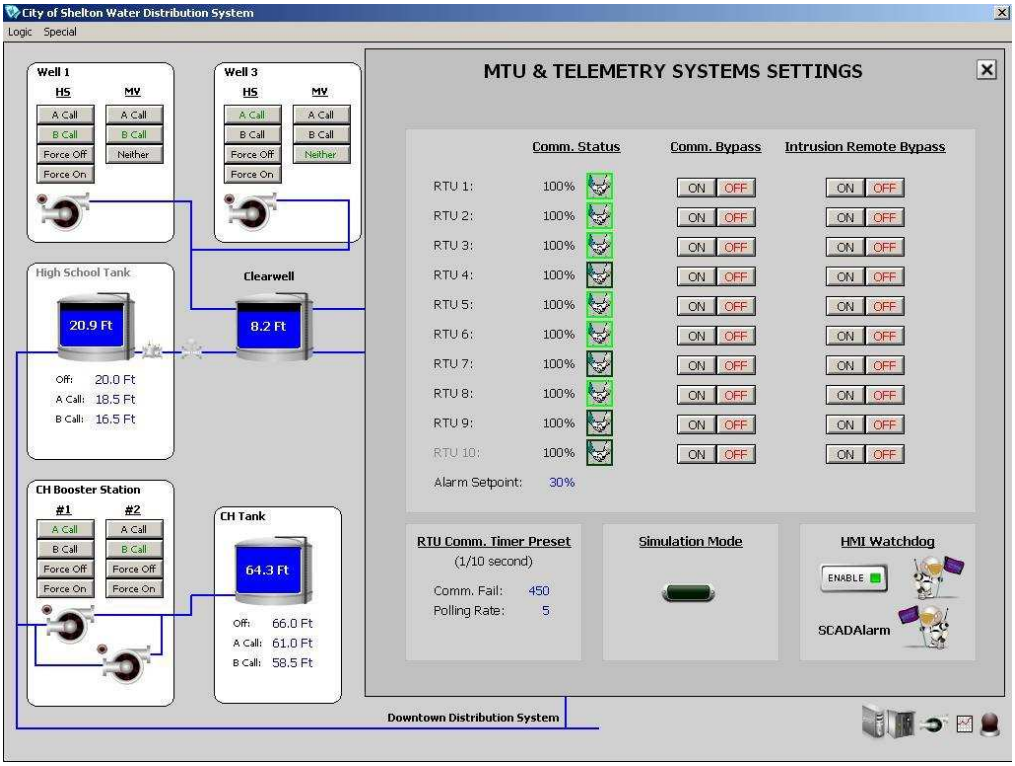


Figure 15. HMI MTU & telemetry systems settings screen

Next to each communication status reading there is a handshake icon which represents communication status between the MTU and each RTU. The last row of the "Comm. Status" column is a communication fail alarm setpoint. Clicking on the RTU label will display the name of the RTU.

There are two settings in the "RTU Comm. Timer Preset" panel. The "Comm. Fail" setting governs when the RTU would declare communication lost locally after experiencing first handshake problem with the MTU. The polling rate setting sets the delay between each consecutive communication poll from the MTU to the RTU.

The simulation mode indicator indicates whether the MTU is in simulation mode or not. When the MTU is in simulation mode, it stops all communication to the RTUs and simulates handshaking locally, mainly for testing purpose. This should be off during normal operation.

The HMI and SCADAlarm watchdogs represent the real-time communication status to the MTU. The HMI Watchdog mechanism should always be enabled during normal operation.

2.1.7 Pump Runtime Screen

From the main page, the operator can click on the pump runtime icon (shown in Figure 16) to bring up an ongoing tally of pump runtimes (shown in Figure 17). This screen allows the user to review and track pump runtimes throughout the system. The shutdown delay setting keeps the pump from shutdown immediately upon communication lost.

Figure 16. Pump runtime icon

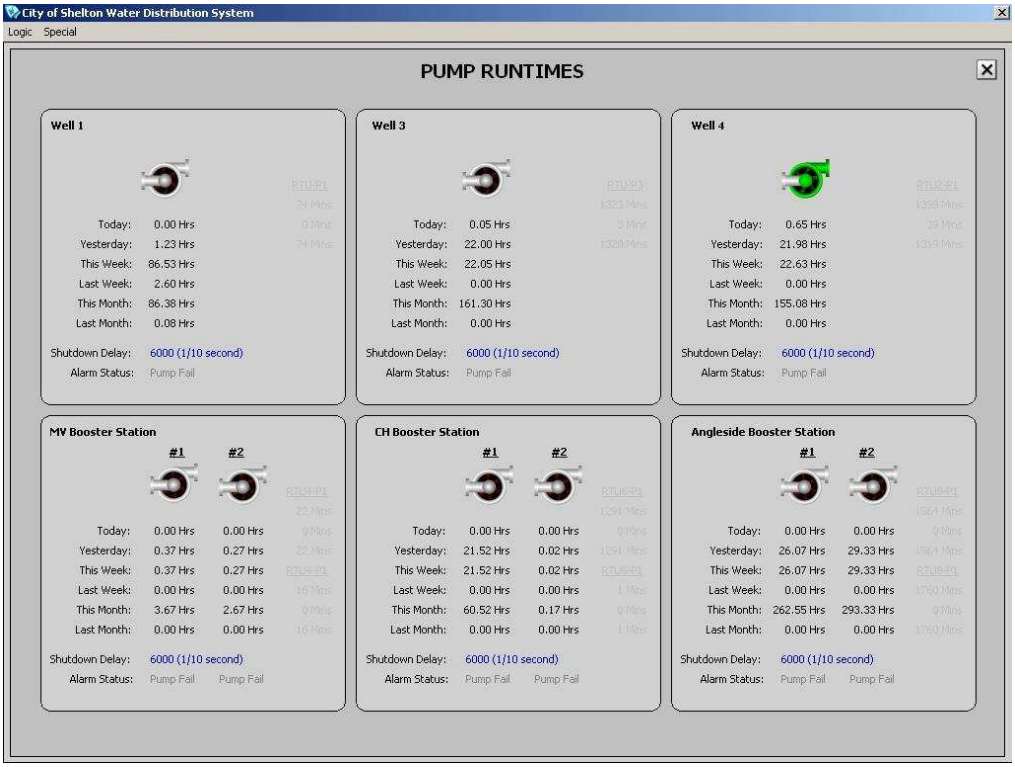


Figure 17. Pump runtime screen

2.1.8 SCADA Performance Screen

The HMI provides a SCADA performance icon (shown in Figure 18) that can be clicked on to bring up the current status of the SCADA server hardware including disk space, memory usage, etc. This screen (shown in Figure 19) allows the user to check on the computer system status.

Figure 18. SCADA performance icon

Figure 19. SCADA performance screen

3. MANUAL OPERATION OF THE SYSTEM

The new SCADA system allows manual control of any of the pumps, either from the HMI or from the local control panel at each remote site.

3.1 Manual Start/Stop from the HMI

Independent of the level in the tanks, the pumps can be manually turned on or off using the control buttons on the interfaces. The control buttons are labeled "Force On" and "Force Off." When a pump is forced off, it will not run regardless of levels in the tanks. It is important to note that there is no verification of flow rates and no interlocks that will prevent pumps from overflowing or draining tanks when forced on or off.

3.2 Local Hand/Off/Auto Switches

Although it is not part of the scope of this project, this section is included as part of the overall control strategy. The pumps can be controlled at the local control panel at each remote site. Each local site has a Hand/Off/Auto selector switch. When not in "Auto," this switch overrides anything that the SCADA system is trying to do. The following describes how the local system operates when the switch is in the selected position:

Hand: The pump starts and continues to run until the switch is turned to the Off or Auto position. This effectively disables control from the Wonderware HMI.

Off: The pump will not run. This disables control of the pump from the HMI.

Auto: This allows control of the pump from the HMI. The "Auto" setting allows manual operation from the HMI with the "Force On" or "Force Off" buttons and automatic operation as described in Section 4. This should be the normal operating mode for the pumps.

4. AUTOMATIC OPERATION OF THE SYSTEM

Generally, automatic control of the pumps is handled within the programming in the MTU and RTUs and is independent of the HMI system. If the HMI fails, the dial-out features of SCADAlarm fail also and the backup automatic dialer calls the operators as described in Section 5. When the main HMI is down, the MTU should maintain control of the system unless the failure is more serious.

Tank levels are monitored and at operator-specified set points, the pumps start and stop. The operator can also manually force the pumps on and off using the buttons on the HMI screens.

4.1 Well 1

Well 1 feeds into the Clearwell which then feeds into the High School tank and the Mountain View (MV) booster station.

The pump at Well 1 can be configured as the lead or lag pump based on the level in the High School tank. The set points are entered at the active text box labeled "A Call," "B Call," and "Off" within the enclosed area around the tank. If the pump is set to "A Call," when the water drops below that level, the pump starts and pumps until the "Off" level is reached.

The pump can also be configured to operate similarly based on the level in the MV tank. An additional button, "Neither," would preclude operation of the pump at Well 1 based on level in this tank.

When the pump is configured to operate on both High School tank and MV tank levels, the pump starts when the first set point is reached and continues running until both tanks have reached their "Off" set points.

4.2 Well 3

Well 3 feeds into the Clearwell which then feeds into the High School tank and the MV booster station.

The pump at Well 3 can be configured as the lead or lag pump based on the level in the High School tank. The set points are entered at the active text box labeled "A Call," "B Call," and "Off" within the enclosed area around the tank. If the pump is set to "A Call," when the water drops below that level, the pump starts and pumps until the "Off" level is reached.

The pump can also be configured to operate similarly based on the level in the Mountain View tank. An additional button, "Neither," would preclude operation of the pump at Well 1 based on level in this tank.

When the pump is configured to operate on both High School and Mountain View tank levels, the pump starts when the first set point is reached and continues running until both tanks have reached their "Off" set points.

4.3 High School Tank

The tank levels are monitored within SCADA. The operator sets the following three set points:

- A Call
- B Call
- Off.

The operator specifies which pump is called in for each set point in the pump control graphics for Well 1 or Well 3.

4.4 Clearwell

This well level is monitored within SCADA, and is part of the MV booster station pump control start delay and interlock mechanism (See section 4.9).

4.5 Spring well

Currently, this well level is monitored and displayed at the HMI but does not impact pump control.

4.6 Capital Hill Booster Station

The Capital Hill (CH) booster station moves water from the downtown zone into the Capital Hill tank.

The pumps in the CH booster station can be configured as the lead or lag pump based on level in the CH tank. The set points are entered at the active text box labeled "A Call," "B Call," and "Off" within the enclosed area around the tank. If the pump is set to "A Call," when the water drops below that level, the pump starts and continues to run until the "Off" level is reached. If the water continues to drop below the "B Call" level, the second pump is called to run and continues to run until the "Off" level is reached.

4.7 Capital Hill Tank

The tank levels are monitored within SCADA. The operator sets the following three set points:

- A Call
- B Call
- Off.

The operator specifies which pump is called in for each set point in the CH booster pump control graphics.

4.8 Well 4

Well 4 feeds into the MV tank.

The pump at Well 4 can be configured as the lead or lag pump based on level in the MV tank. The set points are entered at the active text box labeled "A Call," "B Call," and "Off" within the enclosed area around the tank. If the pump is set to "A Call," when the water drops below that level, the pump starts and pumps until the "Off" level is reached.

4.9 Mountain View Booster Station

The MV booster station moves water from the Clearwell tank into the MV tank.

The pumps in the MV booster station can be configured as the lead or lag pump based on level in the MV tank. The set points are entered at the active text box labeled "A Call," "B Call," and "Off" within the enclosed area around the tank. If the pump is set to "A Call," when the water drops below that level, the pump starts and pumps until the "Off" level is reached. If the water continues to drop below the "B Call" level, the second pump is called to run and continues to run until the "Off" level is reached.

This booster station has a pump control start delay and interlock mechanism which safeguards the clearwell from running dry. On the HMI overview screen below the MV booster station pump #2, there is a "Delay Setpoint" button (shown in Figure 1). Click on the button to display the MV station delay pop-up window (shown in Figure 21). The "Delay Setpoint" parameter sets the duration in seconds before the MV pumps may start when called, provided that at least one pump from well 1 or 3 is already running. The countdown parameter indicates the remaining time before the MV pumps may start. At any given time when the clearwell level drops below 3 feet the delay timer will reset, causing the MV pumps to stop, and the delay process has to restart.

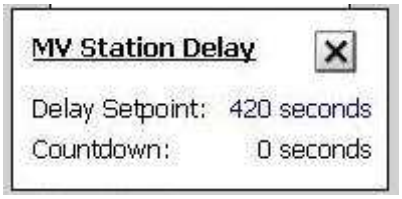


Figure 21. MV station delay pop-up window

4.10 Mountain View Tank

The tank levels are monitored within SCADA. The operator sets the following three set points:

- A Call
- B Call
- Off.

The operator specifies which pump is called in for each set point in the pump control graphics for Well 1, Well 3, Well 4, and/or the pumps at the MV booster station.

4.11 Angleside Booster Station

The Angleside (AS) booster station moves water from the downtown zone into the AS tank.

The pumps in the AS booster station can be configured as the lead or lag pump based on the level in the AS tank. The set points are entered at the active text box labeled "A Call," "B Call," and "Off" within the enclosed area around the tank. If the pump is set to "A Call," when the water drops below that level, the pump starts and pumps until the "Off" level is reached. If the water continues to drop below the "B Call" level, the second pump is called to run and continues to run until the "Off" level is reached.

4.12 Angleside Tank

The tank levels are monitored within SCADA. The operator sets the following three set points:

- A Call
- B Call
- Off.

The operator specifies which pump is called in for each set point in the pump control graphics for the AS booster station.

4.13 Multiple Tanks Controlling a Single Pump

In some cases (Wells 1 and 3), multiple tanks provide levels that trigger start/stop commands for the pumps at those wells. When configured to operate based on either tank, the pumps start running when either tank reaches the configured level set point and continues running until both tanks reach the "Off" set point.

5. TELEPHONE INTERFACE TO THE SCADA SYSTEM

The new SCADA system provides a dial-out alarm monitoring system that alerts the operators when an alarm has gone unacknowledged at the HMI. It also allows the operator to check tank levels through the telephone interface.

5.1 SCADAlarm Dial-Out

As soon as an alarm is registered in the HMI, a timer starts. If the alarm is not acknowledged within 1 minute of the initiation of the alarm, SCADAlarm starts dialing out. The dial-out configuration as of December 16, 2009, is listed in Table 1.

Table 1. SCADAlarm Dial-Out Numbers

Order	Name	Phone type	Phone number
1	Brian Dobie	Cell	360-349-9148
2	Brian Dobie	Home	360-868-2265
3	Mike Albaugh	Cell	360-490-1024
4	Mike Albaugh	Home	360-427-6340
5	Matt Deemer	Cell	360-490-0610
6	Toney Roy	Cell	360-490-3331
7	Ken Dickinson	Cell	360-791-2522
8	Ken Dickinson	Home	360-426-4328
9	Wes Oien	Cell	360-490-0459
10	Wes Oien	Home	360-426-7716
11	Office	Office	360-432-5186
12	Office	Office	360-432-5192

The list can easily be edited using the SCADAlarm Windows interface. Detailed instructions for this software package are beyond the scope of this document and can be found in the manufacturer's documentation.

5.2 Backup Auto-Dialer

A backup auto-dialer was also provided as part of the new system. This monitors the HMI and SCADAlarm and if they fail begins dialing out. Because the auto-dialer is limited to only eight dial-out numbers, a slightly modified dial-out list configuration is shown in Table 2. The first number dialed is the office phone to give the operators one final opportunity to respond to the situation.

Table 2. Auto-Dialer Dial-Out Numbers

Order	Name	Phone type	Phone number
1	Office	Office	360-432-5187
2	Brian Dobie	Cell	360-349-9148
3	Brian Dobie	Home	360-868-2265
4	Mike Albaugh	Cell	360-490-1024
5	Matt Deemer	Cell	360-490-0610
6	Toney Roy	Cell	360-490-3331
7	Ken Dickenson	Cell	360-791-2522
8	Wes Oien	Cell	360-490-0459

The auto-dialer can be configured and modified using the manufacturer's instructions. These are beyond the scope of this document and can be found in the manufacturer's documentation.

O&M Manuals for Chlorination System

Operation And Maintenance Manual

for

Well 1, 4, and 3 Hypochlorination System at City of Shelton Water System (ID No. 78170N)

Mason County, Washington

November 27, 2007

prepared by:

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OVERVIEW

The hypochlorination system at the City of Shelton is designed to inject sodium hypochlorite solution into the water that is pumped from the wells to the distribution system. Sodium hypochlorite solution releases chlorine, a powerful oxidizing agent, into the water. Given sufficient contact time and chlorine concentration, the chlorine attacks and inactivates micro-organisms that may be present in the water. The water is then rendered fit for human consumption by virtue of inactivation of harmful micro-organisms. Chlorine contact time is achieved by way of the hydraulic systems that transport the water to customers, before the water reaches the service connections. Chlorine is a popular disinfecting agent since it can retain its ability to inactivate micro-organisms beyond the point of application, throughout the water system. Sodium hypochlorite solution is a commonly used method of introducing chlorine to the water for water systems since the equipment necessary to inject the solution is relatively simple and inexpensive and since the process is easy to control.

METERING PUMPS

1. The metering pumps remove chlorine solution from solution tanks at manually adjustable rates and inject the solution into the individual wellhead plumbing before the water meters. The metering pumps are set to inject the solution at the rates noted below:

Well	Well Pump Rate, gpm	Metering Pump Stroke/Min.	Metering Pump Rate, Gal/Hr	Chlorine Dose, mg/L
1	1,200	335	1.90	3.2
4	1,200	85	0.24	0.4
3	1,000	85	0.31	0.6

   The metering rates have been established by the City of Shelton Water System Staff to maintain a chlorine residual throughout the distribution system when the wells are pumped at the rates noted. The metering pumps are set to operate at the manually adjustable rates whenever the well pumps operate. Since the well pumping rates are essentially constant, the chlorine dose rate for each well is constant.
2. If any well is modified to pump at different rate the metering pump for that well will have to be readjusted to maintain the desired chlorine dose.

All metering pumps are equipped with Multi-Function back pressure/anti-siphon valves to allow venting of the suction tubing and to prevent backpressure from flooding the solution tank and to prevent low water pressure from starting a siphon, which could empty the solution tank into the wellhead piping. The Multi-Function valve return line to the solution tank should be left in the tank at all times and the end of the return line should never be immersed in the solution.

The metering pump manufacturer's recommendations should be followed for servicing, repairing, and maintaining the metering pump and associated equipment. The metering pumps are

remove contact lenses and rinse with plenty of water for 15 minutes. If swallowed, drink a glassful of water. In either case, call a physician immediately. If in contact with skin, immediately remove contaminated clothing and wash skin thoroughly with water.

TESTING AND SAMPLING

Chlorinated water can be tested for free chlorine concentration at the bacterial sampling locations throughout the system. The target free chlorine concentration at the sampling station is 0.2 ppm. Changes in chlorine concentration will be noted at after the metering pump has been adjusted and after the water has had sufficient time to pass from the injection point to the sampling point. Since the system will take a period of time to respond to changes in the metering pump rate it is important to make any changes to metering pump rate in small increments to avoid having free chlorine concentrations too high or too low. Raw water cannot be sampled at sample taps at the well head unless the metering pump for the individual well is shut down. It is not recommended to shut the metering pumps down. If it becomes necessary to obtain a raw water sample, it is recommended that a sample tap be installed at the wellhead upstream of the solution injection fitting or that the injection fitting be relocated downstream of its existing location and that the raw water sample be collected at the location upstream of the relocated injection fitting. The instructions included in DPD colorimeter test kit should be followed closely to insure that the test results are as accurate as possible.

Chlorine concentration should be tested at the frequency required and at the locations required by the Department of Health. Department of Health monthly report forms are available for recording the chlorine concentration. Department of Health requirements for testing and reporting the chlorine concentrations are to be followed closely.

It should be noted that the existing sample taps at the chlorine injection fittings at the well head should not be used to collect samples for Volatile Organic Chemical Analysis (VOC). Past history at other water systems has demonstrated that collecting VOC samples at sample taps that are immediately downstream from sodium hypochlorite injection fittings can result in false positive VOC test results.

equipped with The suction line and foot valve will likely require cleaning every year. The tubing other replaceable parts in the metering pump will likely require inspection, cleaning or replacement every 2 years. A copy of the pump manufacturer's information is attached to the back of this manual for easy reference.

SODIUM HYPOCHLORITE SOLUTION

Sodium hypochlorite solution is available in different concentrations. This system is designed to use 12.5% solution. Other concentrations can be used but would require either a metering pump setting. The chlorine is added to the solution tanks without mixing or dilution.

If a concentration different from 12.5% is used, the chlorination system may not provide sufficient chlorine for adequate inactivation of bacteria, or may provide excess chlorine which will produce an objectionable smell and taste in the water and will produce higher levels of compounds known as chlorates than might otherwise be necessary. The cover for the solution tank should be kept in place so that contact between air and the solution is minimized and so that the solution tank is not susceptible to materials falling into it.

Sodium hypochlorite solution is known to form chlorates. Sunlight, increased temperature, increased solution strength, increased age of solution, and the presence of metals such as iron and manganese all cause chlorate to be formed. Although detailed health effects studies have not been conducted, chlorates are suspected to cause health problems when consumed over a long period of time. Based on this concern, the Environmental Protection Agency is planning to set a water quality standard for chlorate within the next several years. Until more information is available, it is recommended that the following steps be taken to minimize chlorate formation in the chlorine feed solution:

- Buy fresh hypochlorite solution. The container should have a date stamped on it to show when it was manufactured. If possible, try to obtain containers that are less than 2 week old, or which have been stored under refrigeration.
- Dilute the hypochlorite into the solution tank as soon as possible after it has been purchased. Keep the well house as cool as possible (50° F or lower)
- Discard any unused solution after 60 days.

In an effort to insure the safety of water treatment chemicals, the National Sanitation Foundation (NSF) and the Underwriters Laboratory (UL) are now certifying specific products for use in drinking water. NSF or UL certified sodium hypochlorite will eventually be readily available in this area. When NSF or UL products are available, they should be used. Certified products can be identified by the NSF or UL logo which will appear on the label.

The manufacturer's warnings should be followed when handling the sodium hypochlorite solution. In particular, the 12.5% solution can cause eye damage. Eye and face protection is highly recommended when handling the 12.5% solution. If the solution gets into the eyes

Appendix 8C

MATERIAL SAFETY DATA SHEETS

Product Bulletin

LIQUICHLOR® 12.5% Solution

For Institutional and Industrial Uses. Do Not Store In or About Dwellings.

ACTIVE INGREDIENT:

Sodium hypochlorite	**12.5%**
OTHER INGREDIENTS:	**87.5%**
TOTAL	**100%**

KEEP OUT OF REACH OF CHILDREN, IRRESPONSIBLE PERSONS, AND PETS

DANGER

FIRST AID

If Inhaled:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a Poison Control Center or doctor for further treatment advice.

If on skin or clothing:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a Poison Control Center or doctor for treatment advice.

If in eyes:
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
- Call a Poison Control Center or doctor for treatment advice.

If swallowed:
- Call a Poison Control Center or doctor immediately for treatment advice
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the Poison Control Center or a doctor.
- Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a Poison Control Center or doctor, or going for treatment.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

Distributed by

Univar USA Inc.

17425 NE Union Hill Road, Redmond, WA 98052
(425) 889-3400

(Label #) LIQUICHLOR 12.5%
EPA Reg. No. 550-198

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive, may cause severe skin and eye irritation or chemical burns to broken skin. Causes eye damage. Wear safety glasses or goggles and rubber gloves when handling this product. Wash after handling Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

STRONG OXIDIZING AGENT: Mix only with water according to label directions. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) or organic matter (e.g. urine feces, etc.) will release chlorine gas, which is irritating to eyes, lungs and mucous membranes.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

NOTE: This product degrades with age. Use within one month of receipt. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

SWIMMING POOL WATER DISINFECTION

For a new pool or spring start-up, superchlorinate with 52 to 104 fl. oz. of this product per 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 and 7.6. Adjust and maintain the alkalinity of the pool to between 50 and 100 ppm.

Re-entry into treated swimming pools is prohibited above levels of 4 ppm of chlorine due to risk of bodily harm.

To maintain the pool, add manually or by a feeder device 11 fl. oz. of this product per 10,000 gallons of water to yield an available chlorine residual between 0.6 and 1.0 ppm by weight. Stabilized pools should maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers. Re-entry into treated swimming pools is prohibited above levels of 4 ppm of chlorine due to risk of bodily harm.

Every 7 days, or as necessary, superchlorinate the pool with 52 to 104 fl. oz. of this product per 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not re-enter pool until the chlorine residual is between 1.0 and 3.0 ppm.

At the end of the swimming pool season or when water is to be drained from the pool, chlorine must be allowed to dissipate from treated pool water before discharge. Do not chlorinate the pool within 24 hours prior to discharge.

WINTERIZING POOLS: While water is still clear and clean, apply 3 fl. oz. of this product per 1,000 gallons of water while filter is running to obtain a 3 ppm available chlorine residual, as determined by a suitable test kit.

Cover pool, prepare heater, filter and heater components for winter by following manufacturer's instructions.

SPAS, HOT TUBS, IMMERSION TANKS, ETC.

SPAS/HOT TUBS: Apply 5 fl. oz. of this product per 1,000 gallons of water to obtain a free available chlorine concentration of 5 ppm, as determined by a suitable chlorine test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Some oils, lotions, fragrances, cleaners, etc., may cause foaming or cloudy water as well as reduce the efficiency of the product.

Re-entry into treated spa/hot tubs is prohibited above levels of 5 ppm of chlorine due to risk of bodily harm.

To maintain the water, apply 5 fl. oz. of this product per 1,000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm. After each use, shock treat with 8 fl. oz. of this product per 500 gallons of water to control odor and algae. During extended periods of disuse, add 3 fl. oz. of this product daily per 1,000 gallons of water to maintain a 3 ppm chlorine concentration.

HUBBARD AND IMMERSION TANKS: Add 5 fl. oz. of product per 200 gallons of water before patient used to obtain a chlorine residual of 25 ppm, as determined by a suitable test kit. Adjust and maintain water pH to between 7.2 and 7.6. After each use drain the tank. Add 5 fl. oz. of this product to a bucket of water and circulate this solution through the agitator of the tank for 15 minutes and then rinse out the solution. Clean tank thoroughly and dry with clean cloths.

HYDROTHERAPY TANKS: Add 1 fl. oz. of this product per 1,000 gallons of water to obtain a chlorine residual of 1 ppm, as determined by a suitable chlorine test kit. Pool should not be entered until the chlorine residual is below 3 ppm. Adjust and maintain the water pH to between 7.2 and 7.6. Operate pool filter continuously. Drain pool weekly, and clean before refilling.

SANITATION OF NONPOROUS FOOD CONTACT SURFACES

RINSE METHOD: A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 fl. oz. of this product per 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 fl. oz. of this product per 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to re-establish a 200 ppm residual. Do not rinse equipment with water after treatment and do not soak equipment overnight.

Sanitizers used in automated systems may be used for general cleaning but may not be re-used for sanitizing purposes.

IMMERSION METHOD: A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 fl. oz. of this product per 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 fl. oz. of this product per 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to re-establish a 200 ppm residual. Do not rinse equipment with water after treatment.

Sanitizers used in automated systems may be used for general cleaning but may not be re-used for sanitizing purposes.

FLOW/PRESSURE METHOD: Disassemble equipment and thoroughly clean after use. Assemble equipment in operating position prior to use. Prepare a volume of 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing this product in a ratio of 2 fl. oz. per 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to insure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

CLEAN-IN-PLACE METHOD: Thoroughly clean equipment after use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing this product in a ratio of 2 fl. oz. per 10 gallons of water. Pump solution through system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 10 minutes to insure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

SPRAY/FOG METHOD: Preclean all surfaces after use. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a 200 ppm sanitizing solution of sufficient size by thoroughly mixing this product in a ratio of 2 fl. oz. per 10 gallons of water. Prepare a 600 ppm solution by thoroughly mixing this product in a ratio of 6 fl. oz. per 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces treated with a 600 ppm solution with a 200 ppm available chlorine solution.

SANITIZATION OF POROUS FOOD CONTACT SURFACES

RINSE METHOD: Prepare a 600 ppm solution by thoroughly mixing 6 fl. oz. of this product with 10 gallons of water. Clean surfaces in the normal manner. Rinse all surfaces thoroughly with the 600 ppm solution, maintaining contact for at least 2 minutes. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water. Prior to using equipment, rinse all surfaces with the 200 ppm available chlorine solution. Do not rinse and do not soak equipment overnight.

IMMERSION METHOD: Prepare a 600 ppm solution by thoroughly mixing in an immersion tank 6 fl. oz. of this product with 10 gallons of water. Clean equipment in the normal manner. Immerse equipment in the 600 ppm solution for at least 2 minutes. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water. Prior to using equipment, immerse all surfaces in a 200 ppm available chlorine solution. Do not rinse or soak equipment overnight.

SPRAY/FOG METHOD: Preclean all surfaces after use. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing this product in a ratio of 6 fl. oz. per 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water.

SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD: Prepare a sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

IMMERSION METHOD: Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 2 fl. oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

SPRAY/FOG METHOD: Preclean all surfaces after use. Prepare a 200 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing this product in a ratio of 2 fl. oz. per 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Prior to using equipment, thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD: Prepare a disinfection solution by thoroughly mixing 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the disinfecting solution, maintaining contact with the solution for at least 10 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

IMMERSION METHOD: Prepare a disinfecting solution by thoroughly mixing, in an immersion tank, 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in normal manner. Prior to use, immerse equipment in the disinfecting solution for at least 10 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

RINSE METHOD: Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse with water after treatment and do not soak equipment overnight.

IMMERSION METHOD: Prepare a sanitizing solution by thoroughly mixing 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

SPRAY/FOG METHOD: After cleaning, sanitize non-food contact surfaces with a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing this product in a ratio of 6 fl. oz. per 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Prior to using equipment, thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

SEWAGE & WASTEWATER EFFLUENT TREATMENT

The disinfection of sewage must be evaluated by determining that the total number of coliform bacterial and/or fecal coliform bacteria, as determined by the Most Probable Number (MPN) procedure, of the chlorinated effluent has been reduced to or below the maximum permitted by the controlling regulatory jurisdiction.

On the average, satisfactory disinfection of secondary wastewater effluent can be obtained when the chlorine residual is 0.5 ppm after 15 minutes contact. Although the chlorine residual is the critical factor in disinfection, the importance of correlating chlorine residual with bacterial kill must be emphasized. The MPN of the effluent, which is directly related to the water quality standards requirements, should be the final and primary standard and the chlorine residual should be considered an operating standard valid only to the extent verified by the coliform quality of the effluent.

The following are critical factors affecting wastewater disinfection:

1. Mixing: It is imperative that the product and the wastewater be instantaneously and completely flash mixed to assure reaction with every chemically active soluble and particulate component of the wastewater.

2. Contacting: Upon flash mixing, the flow through the system must be maintained.

3. Dosage/Residual Control: Successful disinfection is extremely dependent on response to fluctuating chlorine demand to maintain a predetermined, desirable chlorine level. Secondary effluent should contain 0.2 to 1.0 ppm chlorine residual after a 15 to 30 minute contact time. A reasonable average of residual chlorine is about 0.5 ppm after 15 minutes of contact time.

SEWAGE & WASTEWATER TREATMENT

EFFLUENT SLIME CONTROL: Apply a 100 to 1,000 ppm available chlorine solution at a location which will allow complete mixing. Prepare this solution by mixing 10 to 100 fl. oz. of this product per 100 gallons of water. Once control is evident, apply a 15 ppm available chlorine solution. Prepare this solution by mixing 3 fl. oz. of this product per 100 gallons of water.

FILTER BEDS: SLIME CONTROL: Remove filter from service, drain to a depth of 1 foot above filter sand, and add 80 fl. oz. of this product per 20 sq. ft. evenly over the surface. Wait 30 minutes before draining water to a level that is even with the top of the filter. Wait 4 to 6 hours before completely draining and backwashing filter.

DISINFECTION OF DRINKING WATER (EMERGENCY/PUBLIC/INDIVIDUAL SYSTEMS)

PUBLIC SYSTEMS: Mix a ratio of 1 fl. oz. of this product per 100 gallons of water. Begin feeding this solution with a hypochlorinator until a free available chlorine residual of at least 0.2 ppm and no more than 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency not less than prescribed by the National Interim Primary Drinking Water Regulations. Contact your local Health Department for further details.

INDIVIDUAL SYSTEMS: DUG WELLS: Upon completion of the casing (Lining) wash the interior of the casing (lining) with a 100 ppm available chlorine solution using a stiff brush. This solution can be made by thoroughly mixing 1 fl. oz. of this product into 10 gallons of water. After covering the well, pour the sanitizing solution into the well through both the pipesleeve opening and the pipeline. Wash the exterior of the pump cylinder also with the sanitizing solution. Start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours flush well until all traces of chlorine have been removed from the water. Consult your local Health Department for further details.

INDIVIDUAL WATER SYSTEMS: DRILLED, DRIVEN, & BORED WELLS: Run pump until water is as free from turbidity as possible. Pour a 100 ppm available chlorine sanitizing solution into the well. This solution can be made by thoroughly mixing 1 fl. oz. of this product into 10 gallons of water. Add 5 to 10 gallons of clean, chlorinated water to the well in order to force the sanitizer into the rock formation. Wash the exterior of pump cylinder with the sanitizer. Drop pipeline into well, start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours flush well until all traces of chlorine have been removed from the water. Deep wells with high water levels may necessitate the use of special methods for introduction of the sanitizer into the well. Consult your local Health Department for further details.

INDIVIDUAL WATER SYSTEMS: FLOWING ARTESIAN WELLS: Artesian wells generally do not require disinfection. If analyses indicate persistent contamination, the well should be disinfected. Consult your local Health Department for further details.

EMERGENCY DISINFECTION: When boiling of water for 1 minutes is not practical, water can be made potable by using this product. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the clarified, contaminated water to a clean container and add 1 drop of this product to 20 gallons of water. Allow the treated water to stand for 30 minutes. Properly treated water should have a slight chlorine odor, if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers several times.

PUBLIC WATER SYSTEMS

RESERVOIRS: ALGAE CONTROL: Hypochlorinated streams feeding the reservoir. Suitable feeding points should be selected on each stream at least 50 yards upstream from the points of entry into the reservoir.

MAINS: Thoroughly flush section to be sanitized by discharging from hydrants. Permit a water flow of at least 2.5 feet per minute to continue under pressure while injecting this product by means of a hypochlorinator. Stop water flow when chlorine residual test of 50 ppm is obtained at the low pressure end of the new main section after a 24 hour retention time. When chlorination is complete, the system must be flushed free of all heavily chlorinated water.

NEW TANKS, BASINS, ETC.: Remove all physical soil from surfaces. Place 20 fl. oz. of this product per each 5 cubic feet of working capacity (500 ppm available chlorine). Fill to working capacity and allow to stand for at least 4 hours. Drain and flush with potable water and return to surface.

NEW FILTER SAND: Apply 80 fl. oz. of this product per each 150 to 200 cubic feet of sand. The action of the product dissolving as the water passes through the bed will aid in sanitizing the new sand.

NEW WELLS: Flush the casing with a 50 ppm available chlorine solution of water containing 5 fl. oz. of this product for each 100 gallons of water. The solution should be pumped or fed by gravity into the well after thorough mixing with agitation. The well should stand for several hours or overnight under chlorination. It may then be pumped until a representative raw water sample is obtained. Bacterial examination of the water will indicate whether further treatment is necessary.

EXISTING EQUIPMENT: Remove equipment from service, thoroughly clean surfaces of all physical soil. Sanitize by placing 21 fl. oz. of this product per each 5 cubic feet capacity (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and place in service. If the previous treatment is not practical, surfaces may be sprayed with a solution containing 5 fl. oz. of this product for each 5 gallons of water (approximately 1,000 available chlorine). After drying, flush with water and return to service.

EMERGENCY DISINFECTION AFTER FLOODS

WELLS: Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 5 fl. oz. of this product with 10 gallons of water. Backwash the well to increase yield and reduce turbidity, adding sufficient chlorinating solution to the backwash to produce a 10 ppm available chlorine residual, as determined by a chlorine test kit. After the turbidity has been reduced and the casing has been treated, add sufficient chlorinating solution to produce a 50 ppm available chlorine residual. Agitate the well water for several hours and take a representative water sample. Retreat well if water samples are biologically unacceptable.

RESERVOIRS: In case of contamination by overflowing streams, establish hypochlorinating stations upstream of the reservoir. Chlorinate the inlet water until the entire reservoir obtains a 0.2 ppm available chlorine residual, as determined by a suitable chlorine test kit. In case of contamination from surface drainage, apply sufficient product directly to the reservoir to obtain a 0.2 ppm available chlorine residual in all parts of the reservoir.

BASINS, TANKS, FLUMES, ETC.: Thoroughly clean all equipment, then apply 20 fl. oz. of this product per 5 cu. ft. of water to obtain a 500 ppm available chlorine, as determined by a suitable test kit. After 24 hours drain, flush, and return to service. If the previous method is not suitable, spray or flush the equipment with a solution containing 5 fl. oz. of this product for each 5 gallons of water (1,000 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

FILTERS: When the sand filter needs replacement, apply 80 fl. oz. of this product for each 150 to 200 cubic feet of sand. When the filter is severely contaminated, additional product should be distributed over the surface at the rate of 80 fl. oz. per each 20 sq. ft. of sand. Water should stand at a depth of 1 foot above the surface of the filter bed for 4 to 24 hours. When the filter beds can be backwashed of mud and silt, apply 80 fl. oz. of this product per each 50 sq. ft., allowing water to stand at a depth of 1 foot above the filter sand. After 30 minutes, drain water to the level of the filter. After 4 to 6 hours drain, and proceed with normal backwashing.

DISTRIBUTION SYSTEM: Flush repaired or replaced section with water. Establish a hypochlorinating station and apply sufficient product until a consistent available chlorine residual of at least 10 ppm remains after a 24 hour retention time. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER FIRES

CROSS CONNECTIONS OR EMERGENCY CONNECTIONS: Hypochlorination or gravity feed equipment should be set up near the intake of the untreated water supply. Apply sufficient product to give a chlorine residual of at least 0.1 to 0.2 ppm at the point where the untreated supply enters the regular distribution system. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER DROUGHTS

SUPPLEMENTARY WATER SUPPLIES: Gravity or mechanical hypochlorite feeder should be set up on a supplementary line to dose the water to a minimum chlorine residual of 0.2 ppm after a 20 minute contact time. Use a chlorine test kit.

WATER SHIPPED IN BY TANKS, TANK CARS, TRUCKS, ETC.: Thoroughly clean all containers and equipment. Spray a 500 ppm available chlorine solution and rinse with potable water after 5 minutes. This solution is made by mixing 5 fl. oz. of this product for each 10 gallons of water. During the filling of the containers, dose with sufficient amounts of this product to provide at least a 0.2 ppm chlorine residual. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER MAIN BREAKS

MAINS: Before assembly of the repaired section, flush out mud and soil. Permit a water flow of at least 2.5 feet per minute to continue under pressure while injecting this product by means of a hypochlorinator. Stop water flow when a chlorine residual test of 50 ppm is obtained at the low pressure end of the new main section after a 24 hour retention time. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

COOLING TOWER/EVAPORATIVE CONDENSER WATER

SLUG FEED METHOD: Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

INTERMITTENT FEED METHOD: Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown.

Subsequent Dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system had been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD: Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 1 fl. oz. per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

IRRIGATION WATER CONVEYANCE SYSTEMS

To aid in keeping water-emitting devices and the irrigation water distribution system from becoming plugged by suspended solids, magnesium and calcium precipitation, manganese-iron oxides and sulfides, algae, bacteria, and slime.

General Instructions: Apply this product only to center pivot, lateral move, side-wheel roll, solid set, hand move, traveler, big gun, end tow, Low Energy Precision Application Systems, or micro-irrigation systems (e.g., surface or subsurface drip emitters and micro-spray). Do not apply this product to any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from use inconsistent with dosage instructions. The injection apparatus and irrigation system must be properly calibrated and maintained. Questions about calibration and maintenance should be directed to State Cooperative Extension Specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems), while using this product to treat the system, to a public water system unless the prescribed safety devices for public water systems are in place and are properly functioning. A person knowledgeable of the system and responsible for its operation, or someone under the direct supervision of the responsible person, must start up or shut down the system and make any necessary adjustments including calibration.

Specific Irrigation System Requirements: The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back towards the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being drawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls, (e.g., pressure switch or flow meter) to automatically shut off the pesticide injection pump when the water pump motor stops or, in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. The irrigation mainline or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., piston or diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Irrigation systems connected to a public water system must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent, in the water supply line upstream from the point of pesticide introduction. As an alternative to the RPZ, the water from a public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

Substituted Devises: Alternative technology referenced in USEPA's "List of Alternative Chemigation Safety Equipment" may be substituted for specific backflow prevention devices.

Please note: State chemigation rules may necessitate protective measures in addition to those specified hereinabove.

Application/Dosage Instructions: Before chlorination is undertaken, a water quality analysis should be performed to quantify inorganic solids such as sand and silt; organic solids such as algae, bacteria, and slime; dissolved solids such as iron, sulfur, sodium chlorides, and calcium, and pH of the water. If the pH is above 7.5, the water must be acidified if chlorination is to be effective. The application concentration and application frequency should be based on the water analysis. To determine injection rates referenced below, use the following formulas:

Table 1: Injection Rate in **Gallons per Hour** For Positive Displacement Pumps	
$IR = \frac{0.006 \times Q \times C}{P}$	IR = Injection Rate Q = Irrigation System Flow Rate (gal/min) C = Desired Concentration of Available Chlorine(ppm) P = Concentration of Product Solution (percent)

Table 2: Injection Rate in **Ounces per Hour** For Positive Displacement Pumps	
$IR = \frac{0.77 \times Q \times C}{P}$	IR = Injection Rate Q = Irrigation System Flow Rate (gal/min) C = Desired Concentration of Available Chlorine (ppm) P = Concentration of Product Solution (percent)

Table 3: Injection Rate (ppm) For **Proportional Rate** Injection Pumps	
$IR = \frac{C \times 100}{P}$	IR = Injection Rate C = Desired Concentration of Available Chlorine (ppm) P = Concentration of Product Solution (percent) 1% = 10,000 ppm

CONTINUOUS FEED: Inject the required amount of this product *into* the irrigation system to obtain 1 to 5 ppm available chlorine, until a concentration of 1 to 2 ppm of *free (residual)* chlorine can be measured at the distant end of the irrigation distribution system. Use a chlorine test kit.

Example: Using *a positive displacement* pump injection system **(Tables 1 & 2)** with an Irrigation flow rate (Q) of 100 gallons *per minute (gpm)*, for a desired Concentration (C) of 5 ppm available chlorine (with 1 to 2 ppm residual chlorine measured at distant end of irrigation system), and concentration of this product solution (P)is 12.5: Inject 0.24 gallon (30 ounces) per hour (IR) of this product.

SYSTEM MAINTENANCE: At the end of the irrigation cycle, inject the required amount of this product into the system to attain 10 to 20 ppm available chlorine for the length of time required to fill the entire system with this solution. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

Example: Using a positive displacement pump injection system **(Tables 1 & 2)** with an Irrigation flow rate (Q) of 100 gallons per minute (gpm), for a desired Concentration (C) of 15 ppm available chlorine, and Concentration of this Product solution (P) is 12.5: Inject 0.72 gallon (92 ounces) per hour (IR) of this product.

SHOCK TREATMENT: One to two times each month, at the end of the irrigation cycle, inject the required amount of this product into the system to attain 20 to 30 ppm available chlorine for the length of time required to fill the entire system with this solution. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

Example: Using a positive displacement pump injection system **(Tables 1 & 2)** with an Irrigation flow rate (Q) of 100 gallons per minute (gpm), for a desired Concentration (C) of 25 ppm available chlorine, and Concentration of this Product solution (P) is 12.5: Inject 1.2 gallons (154 ounces) per hour (IR) of this product.

LAUNDRY SANITIZERS

Household Laundry Sanitizers

IN SOAKING SUDS: Thoroughly mix 2 fl. oz. of this product per 10 gallons of wash water to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior to starting the wash/rinse cycle.

IN WASHING SUDS: Thoroughly mix 2 fl. oz of this product per 10 gallons of wash containing clothes to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent and start the wash/rinse cycle.

COMMERCIAL LAUNDRY SANITIZERS

Wet fabrics or clothes should be spun dry prior to sanitization. Thoroughly mix 2 fl. oz. of this product to 10 gallons of water to yield 200 ppm available chlorine. Promptly after mixing the sanitizer, add the solution into the prewash prior to washing fabrics/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine, if solution has been allowed to stand. Add more of this product if the available chlorine level has dropped below 200 ppm.

FARM PREMISES

Remove all animals, poultry, and feed from premises, conveyances, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities occupied or traversed by animals or poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with a solution of at least 1,000 ppm available chlorine for a period of 10 minutes. A 1,000 ppm solution can be made by thoroughly mixing 11 fl. oz. of this product per 10 gallons of water. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals and poultry, as well as the cleaned forks, shovels and scrapers used for removing litter and manure. Ventilate buildings, conveyances, boats and other closed spaces. Do not house livestock or poultry or employ equipment until chlorine has been dissipated. All treated feed racks, mangers, troughs, automatic feeders, fountains and waterers must be rinsed with potable water before reuse.

PULP AND PAPER MILL PROCESS WATER SYSTEMS

SLUG FEED METHOD: Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

INTERMITTENT FEED METHOD: Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

Subsequent Dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Apply half (or 1/3, 1/4, or 1/5) of the initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD: Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 1 fl. oz. of this product per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

AGRICULTURAL USES

POST-HARVEST PROTECTION: Potatoes can be sanitized after cleaning and prior to storage by spraying with a sanitizing solution at a level of 1 gallon of sanitizing solution per ton of potatoes. Thoroughly mix 1 fl. oz. of this product with 2 gallons of water to obtain a 500 ppm available chlorine.

LEAFCUTTING BEE CELLS & BEE BOARDS: Disinfect leaf cutting bee cells and bee boards by immersion in a solution containing 1 ppm available chlorine for 3 minutes. Allow cells to drain for 2 minutes and dry 4 to 5 hours or until no chlorine odor can be detected. This solution is made by thoroughly mixing 1 Tsp. of this product per 100 gallons of water. The bee domicile is disinfected by spraying with 0.1 ppm solution until all surfaces are thoroughly wet. Allow the domicile to dry until all chlorine odor has dissipated.

FOOD EGG SANITIZATION: Thoroughly clean all eggs. Thoroughly mix 2 fl. oz. of this product per 10 gallons of warm water to produce a 200 ppm available chlorine solution. The sanitized temperature should not exceed 130 degrees F. Spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking. Do not apply a potable water rinse. The solution should not be re-used to sanitize eggs.

FRUIT AND VEGETABLE WASHING: Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 5 fl. oz. of this product in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruit or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Spray rinse vegetables with the sanitizing solution prior to packaging. Rinse fruit with potable water only prior to packaging.

MEAT AND POULTRY PLANTS: Authorized by USDA for use in Federally inspected meat and poultry plants. Chlorine may be present in processing water of meat and poultry plants at concentrations up to 5 parts per million (ppm) calculated as available chlorine. Also, chlorine may be present in poultry chiller intake water, and in carcass wash water at concentrations up to 50 parts per million calculated as available chlorine. Chlorine must be dispensed at a constant and uniform level and the method or system must be such that a controlled rate is maintained. Thoroughly mix 1.15 oz. of this product in 200 gallons of water to make a sanitizing solution of 5 ppm available chlorine, or 11.5 oz. in 200 gallons of water for 50 ppm available chlorine.

AQUACULTURAL USES

FISH PONDS: Remove fish from ponds prior to treatment. Thoroughly mix 103 fl. oz. of this product with 10,000 gallons of water to obtain 10 ppm available chlorine. Add more product to the water if the available chlorine level is below 1 ppm after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

FISH POND EQUIPMENT: Thoroughly clean all equipment prior to treatment. Thoroughly mix 2 fl. oz. of this product with 10 gallons of water to obtain a 200 ppm available chlorine. Porous equipment should soak for one hour.

MAINE LOBSTER PONDS: Remove lobsters, seaweed, etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 96 gallons per 10,000 gallons of water to obtain at least 600 ppm available chlorine. Apply so that all barrows, gates, lock and dam are treated with product. Permit high tide to fill the pond and then close gates. Allow water to stand for 2 to 3 days until the available chlorine level reaches zero. Open gates and allow 2 tidal cycles to flush pond before returning lobsters to pond.

CONDITIONING LIVE OYSTERS: Thoroughly mix 5 fl. oz. of this product with 10,000 gallons of water at 50 degrees to 70 degrees F to obtain 0.5 ppm available chlorine. Expose oysters to this solution for at least 15 minutes, monitoring the available chlorine level so that it does not fall below 0.05 ppm. Repeat entire process if the available chlorine level drops below 0.05 ppm or the temperature falls below 50 degrees F.

CONTROL OF SCAVENGERS IN FISH HATCHERY PONDS: Prepare a solution containing 200 ppm of available chlorine by mixing 2 fl. oz. of this product with 10 gallons of water. Pour into drained pond potholes. Repeat if necessary. Do not put desirable fish back into refilled pond until chlorine residual had dropped to 0 ppm, as determined by a test kit.

SANITIZATION OF DIALYSIS MACHINES

Flush equipment thoroughly with water prior to using this product. Thoroughly mix 6 fl. oz. of this product to 10 gallons of water to obtain at least 600 ppm available chlorine. Immediately use this product in the hemodialysate system allowing for a minimum contact time of 15 minutes at 20 degrees C. Drain system of the sanitizing solution and thoroughly rinse with water. Discard and DO NOT reuse the spent sanitizer. Rinsate must be monitored with a suitable test kit to insure that no available chlorine remains in the system.

This product is recommended for decontaminating single and multipatient hemodialysate systems. This product has been shown to be an effective disinfectant (virucide, fungicide, bactericide, pseudomonicide) when tested by AOAC and EPA test methods. This product may not totally eliminate all vegetative microorganisms in hemodialysate delivery systems due to their construction and/or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. This product should be used in a disinfectant program which includes bacteriological monitoring of the hemodialysate delivery system. This product is NOT recommended for use in hemodialysate or reverse osmosis (RO) membranes.

Consult the guidelines for hemodialysate systems which are available from the Hepatitis Laboratories, CDC, Phoenix, AR 85021.

ASPHALT OR WOOD ROOFS AND SIDINGS

To control fungus and mildew, first remove physical soil by brushing and hosing with clean water, and apply a 5,000 ppm available chlorine solution. Mix 5 fl. oz. of this product per gallon of water and brush or spray roof or siding. After 30 minutes, rinse by hosing with clean water.

BOAT BOTTOMS

To control slime on boat bottoms, sling a plastic tarp under boat, retaining enough water to cover the fouled bottom area, but not allowing water to enter enclosed area. This envelope should contain approximately 500 gallons of water for a 14 foot boat. Add 18 fl. oz. of this product to this water to obtain a 35 ppm available chlorine concentration. Leave immersed for 8 to 12 hours. Repeat if necessary. Do not discharge the solution until the free chlorine level has dropped to 0 ppm, as determined by a swimming pool test kit.

ARTIFICIAL SAND BEACHES

To sanitize the sand, spray a 500 ppm available chlorine solution containing 5 fl. oz. of this product per 10 gallons of water at frequent intervals. Small areas can be sprinkled with a watering can.

Version 8/1/2007

Appendix 8D

CROSS-CONNECTION CONTROL PLAN

"Building A Stronger Community TOGETHER"

CITY OF SHELTON, WASHINGTON OF MASON COUNTY

CROSS CONNECTION CONTROL POLICY

Revised November 2015

Authorized by City of Shelton Resolution #1026-0811

CITY OF SHELTON

CROSS CONNECTION CONTROL POLICY TABLE OF CONTENTS

Pursuant to Washington Administrative Code (WAC) 346-290-490, or as amended, it is the responsibility of the City of Shelton to protect its drinking water by instituting and enforcing a cross connection control program. NOW, THEREFORE, THE CITY OF SHELTON OF MASON COUNTY, WASHINGTON STIPULATES AS FOLLOWS:

1:01 DEFINITIONS

Except where specifically designated herein, all words used in this document shall carry their customary meanings. Words used in the present tense include the future and plural words include the singular. The word "shall" is always mandatory, and the word "may" denotes a use of discretion in making a decision. Any definition not found in this section will take its meaning from the WAC (246-290), or as amended, or in the most recent edition of the *Manual of Cross Connection Control* published by the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California or recommended practice for **Backflow Prevention and Cross Connection Control** (M14) published by American Water Works Association.

(1) "Agreement" shall mean all agreements for service installation, meters and special service with any person, firm or corporation, or the authorized agents thereof.

(2) "Air gap" shall mean a physical separation between the free-flowing end of a potable water supply pipeline and the overflow rim of an open or non-pressure- receiving vessel. To be an "approved air gap," the separation must be at least twice the diameter of the inlet piping (supply pipe) measured vertically, and never be less than one (1) inch. When located near walls, the air gap separation must be increased.

(3) "Approved backflow prevention assembly" or "backflow assembly" or. "assembly," shall mean an assembly to counteract backpressure or prevent backsiphonage. This assembly must appear on the list of approved assemblies issued by the Washington State Department of Health. The assembly must be purchased and installed as a complete unit including two shut-off valves and test cocks.

(4) "Auxiliary supply" shall mean any water source or system other than the City of Shelton's water. This will include, but is not limited to, wells, streams, ponds, and irrigation ditches. These waters may be contaminated or polluted, or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

(5) "Backflow" shall mean the flow of water or other liquids, gases or solids from any source back into the distribution system. The flow of water in the opposite direction of its intended flow.

(6) "Backflow Assembly Tester" shall mean a person holding a valid BAT certificate issued in accordance with the Washington Administrative Code 246- 290-490 and the RCW 18.106, 18.27, and 70.119.

(7) "Backpressure" shall mean backflow due to water pressure on the downstream side of the meter. Water pressure higher than the supple pressure, caused by a pump, elevated tanks, building, boilers, or any other means that may cause backflow.

(8) "Back siphonage" shall mean backflow due to a negative or reduced pressure within the public potable water supply.

(9) "Building Inspector" shall mean the City of Shelton Building Inspector.

(10) "City" shall mean City of Shelton.

(11) "Closed system" shall mean any water system or portion of a water system in which water is closed to atmosphere.

(12) "Connection" shall mean any physical connection to the City water system by any water service of any private water system or pipeline extension.

(13) "Contamination" shall mean the entry into or presence in a public water supply system of any substance, which may be harmful to health and/or quality of the water.

(14) "County" shall mean Mason County.

(15) "Cross connection" shall mean any physical arrangement where a public water system is connected, directly or indirectly (actual or potential), with any other non-drinkable water system or auxiliary system, wells, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, swamp coolers, or any other device which contains, or may contain, contaminated or polluted water, sewage, used water, or other liquid of unknown or unsafe quality which may be capable of imparting contamination or pollution to the public water system as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or other temporary or permanent devices through which, or because of which, backflow may occur are considered to be cross connections.

(16) "Cross Connection Specialist" or "CCS" shall mean a person holding a valid CCS certificate issued in accordance with the Washington Administrative Code who is employed by the City or under contract with the City.

(17) "Degree of hazard" shall mean the low or high hazard classification that shall be attached to all actual or potential cross connections.

(18) "Distribution system" shall mean all piping components of the City's system that serve to convey water from transmission mains linked to source, storage, and treatment facilities to the consumer excluding individual services.

(19) "DOH" shall mean Washington State Department of Health.

(20) "Double check valve assembly" or "double check assembly" or "double check" or "DCVA" or "DC" shall mean an assembly, which consists of two independently operating check valves, which are spring-loaded or weighted. The assembly comes complete with a shut-off valve on each side of the checks, as well as test cocks.

(21) "Double check detector assembly" or "DCDA" shall mean an assembly that consists of two independently operating check valves that are spring-loaded or weighted. The assembly comes complete with a shut-off valve on each side of the checks, as well as test cocks to test the checks for tightness. It shall also be provided with a factory bypass arrangement with a meter and a minimum of an approved double check assembly.

(22) "Health hazard" shall mean an actual or potential threat of contamination, death or illness, spread of disease, of a physical, toxic or biological nature that would be a danger to health.

(23) "In-premises protection" shall mean a method of protecting the health of consumers served by the customer's plumbing system (i.e., located within the property lines of the customer's premises) by the installation of an approved air gap, backflow prevention assembly at the point of hazard.

(24) "Inspector", "Surveyor" or "Specialist" shall mean a person holding a valid CCS certificate issued in accordance with the Washington Administrative Code, who meets the stipulations in this Policy.

(25) "Local Administrative Authority" or "LAA" shall mean the local official, board, department, or agency authorized to administer and enforce the provisions of the Uniform Plumbing Code and all other plumbing codes recognized by the State of Washington.

(26) "Low health hazard" shall mean the classification assigned to an actual or potential cross connection that could allow a substance that may be objectionable, but not hazardous to one's health, to backflow into the potable water supply.

(27) "Manager" shall mean City's General Manager or General Manager Designee.

(28) ,Mobile unit" shall mean units connecting to the water system through a hydrant, hose bib, or other appurtenance of a permanent nature that is part of

the City water system or a permanent water service to a premise. Examples can include, but are not limited to, the following: water trucks, pesticide applicator vehicles, chemical mixing units or tanks, waste or septage hauler trucks or units, sewer cleaning equipment, carpet or steam cleaning equipment, rock quarry or asphalt/concrete batch plants, or any other mobile equipment or vessel. Uses that are excluded from this definition are recreational vehicles at assigned sites or parked in accordance with other City Policies pertaining to recreational vehicles, and homeowner devices that are used by the property owner in accordance with other provisions of this, or other City Policies pertaining to provision of water service to a premise.

(29) "Person" shall mean a natural person (individual), corporation, company, association, partnership, firm, limited liability company, joint venture company or association, and other such entity.

(30) "Plumbing hazard" shall mean an internal or plumbing-type cross connection in a consumer's potable water system that may be either a pollutional or a contamination-type hazard. This includes, but is not limited to, cross connections to toilets, sinks, lavatories, wash trays, domestic washing machines and lawn sprinkling systems. Plumbing-type cross connections can be located in all types of structures including, but not limited to, homes, manufactured homes, apartment houses, hotels and commercial, structures over 30 feet tall or industrial establishments.

(31) "Pollutional hazard" shall mean an actual or potential threat to the physical properties of the water system or the potability of the public or the consumer's potable water system but which would not constitute a health or system hazard, as defined. The maximum degree of intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.

(32) "Potable water supply" shall mean any system of water supply intended or used for human consumption or other domestic use and meets all requirements established by the Safe Drinking Water Act and the DOH regulations.

(33) "Premises" shall mean any piece of property to which water is provided, including, but not limited to, all improvements, mobile structures and structures located on it.

(34) "Premises isolation" shall mean a method of protecting a public water system by installation of an approved air gap or approved backflow prevention assembly at the point of service (end of purveyor's service pipe) to separate the customer's plumbing system from the purveyor's distribution system.

(35) "Reclaimed water" shall mean effluent derived in any part from sewage from a wastewater treatment system that has been adequately and reliably treated, so that as a result of that treatment, it is suitable for beneficial use or a controlled use that would not otherwise occur, and it is no longer considered wastewater.

(36) "Reduced pressure detector assembly" or "'RPDA" shall mean an approved assembly consisting of two approved reduced pressure backflow assemblies, set in parallel, equipped with a meter on the bypass line to detect small amounts of water leakage or use.

(37) "Reduced pressure backflow assembly" or "RP" shall mean an assembly containing two independently operating check valves together with a hydraulically-operated, mechanically independent pressure differential relief valve located between the check valves. The assembly shall include properly located test cocks and tightly closing shut-off valves at each end of the assembly.

(38) "Retrofitting" shall mean the addition of new technology, features or parts that are added to or fitted onto older or outdated systems or parts.

(39) "Stringent" WAC 246-290-490(2) (a) contains a provision for purveyors to implement more stringent cross-connection control programs than minimum program required by WAC 246-290-490. Office of Drinking Water will fully support purveyors who choose to implement the more stringent approach, since it is more protective of public health and is consistent with industry practice. L.

(40) "Thermal expansion" shall mean the pressure created by the expansion of heated water.

(41) "Unapproved auxiliary water supply" shall mean a water supply (other than the purveyor's water supply) on or available to the consumer's premises that is either not approved for human consumption by the, health agency having jurisdiction or is not otherwise acceptable to the purveyor. This will include, but is not limited to, wells, streams, ponds and irrigation ditches/piping.

(42) "Used water" shall mean any water supplied by the City to a customer's property after it has passed through the service connection and is no longer under the control of the City.

(43) "WAC" shall mean the most recent edition of the Washington Administrative Code.

1:02 PURPOSE

The purpose of this Policy is to protect the water system of the City of Shelton from contamination or pollution due to any existing or potential cross connections as

defined in WAC 246-290-010 and WAC 246-290-490, or as amended, this Policy and the City's current SOP Manual.

1:03 CROSS CONNECTIONS REGULATED

(1) The program for the City of Shelton is to have premises isolation and in premises isolation program.

(2) No cross connections shall be created, installed, used or maintained within the area served by the City, except in accordance withthis Policy.

(3) The CCS for the City shall carry out or cause surveys to be carried out to determine if any actual or potential cross connections exist. If found necessary, an assembly commensurate with the degree of hazard will be required to be installed at the service connection.

(4) The owner, occupant or person in control of the property is responsible for all cross connection control within the premises.

(5) The owner, occupant or person in control of the property shall abide by all other City regulations.

(6) City customers are required to notify the City prior to the installation of all backflow prevention assemblies for verification of the appropriate assembly.

(7) The consumer agrees to immediately notify the City and the local health jurisdiction of any backflow incident occurringwithin the consumer's premises (i.e., entry of any contaminant/pollutant into the drinking water) and shall cooperate fully with the City to determine the reason for the backflow incident.

1:04 APPLICATION AND RESPONSIBLITILIES

This Policy applies throughout the City and to every premise and property served by the City Water System. It applies to any premises, public or private, regardless of date of connection to the City water. Every owner, occupant and/or person in control of any concerned premises is responsible for compliance with the terms and provisions contained herein.

The City of Shelton shall be responsible for the protection of the water distribution system from contamination or pollution due to the backflow of contaminants or pollutants through the water service connection. If, in the judgment of said CCS an approved backflow assembly is required (at the customer's water service connection; or, within the customer's private water system) for the safety of the water system, the CCS shall give notice inwriting to said customer to install such an approved backflow assembly(s) at specific location(s) on his/her premises. The customer shall immediately install such approved assembly(s) at his/her own expense; and, refusal,

or inability on the part of the customer to install, have tested, and maintain said assembly(s) shall constitute grounds for discontinuing water service to the premises until such requirements have been satisfactorily met.

1:05 BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS

A CCS shall determine the type of backflow assembly to be installed within the area served by the City. All assemblies shall be installed at the service connection unless it is determined by the CCS to install the assembly at an alternate location. The cross connection shall be eliminated or an assembly shall be required to be installed in each of the following circumstances, but the CCS is in no way limited to the following circumstances:

(1)) The nature and extent of any activity on the premises, or the materials used in connection with any activity on the premises, or materials stored on the premises, could contaminate or pollute the potable water supply.

(2) A premise having one or more cross connections or potential cross connections as that term is defined in the Policy, the Washington Administrative Code and all applicable plumbing codes.

(3) When a cross connection survey report form is required by the City to be filled out and the City has not received it.

(4) Internal cross connections are present that are not correctable.

(5) Intricate plumbing arrangements exist or plumbing subject to frequent changes is present that make it impractical to ascertain whether or not cross connections exist.

(6) There is a repeated history of cross connections being established or re-established.

(7) There is unduly restricted entry so that surveys for cross connections cannot be made with sufficient frequency to assure that cross connections do not exist.

(8) Materials, chemicals or any substance or apparatus is being used that if backflow occurred contamination would result.

(9) Installation of an approved backflow prevention assembly is deemed to be necessary in the judgment of the CCS to accomplish the purpose of this Policy.

(10) In the event an in-premise assembly has not been tested or repaired as required by the WAC 346-290-490, or as amended.

(11) If it is determined that additions or rearrangements have been made to the plumbing system without obtaining proper permits as required by the City Code Enforcement Division.

(12) All high health hazard premises, which are defined in Table 9 of the WAC section 246-290-490, or as amended, are required to have premises isolation by installing a reduced pressure backflow assembly in accordance with this Policy.

(13) When a garden hose attachment is connected to the premises plumbing, including but not limited to fertilizer applicators, pesticide applicators and radiator flush kits.

(14) Where reclaimed or reused water systems are installed.

(15) Premises on which any substance is handled under pressure so as to permit entry into the public water system.

(16) Chemically Contaminated Buildings (Commercial and Residential) have two (2) choices if they want to connect to City Water:

1. Property Owner/Applicant shall at their expense have a RPBA installed on the property side of all water meter(s) serving the property. Each RPBA shall be installed to City standards, be installed under City permit, and have City inspections done. Every RPBA requires annual testing, at the owner's expense to insure it is properly working to protect City Water.

2. If a property owner/applicant does not want to install a RPBA, the applicant may have the chemically contaminated building tested to evaluate if the building is clean or not. A potentially contaminated building must be "certified clean" through independent testing prior to connecting City Water.

    a) Stage 1 - Testing Options for Chemically Contaminated Buildings:

    Option 1: The property owner may waive testing and install a RPBA as stated under section A. above; no testing is required.
    Option 2: The City will provide and perform single, one-time contamination sampling and testing from within each questionable building using a City supplied sampling kit. Testing kits will be provided at the City's expense and the samples must be taken by City staff.
    Option 3: The property owner may have a state certified company do the sampling and testing, with the City's CS present during sampling; sampling locations from within each building shall meet with CCS approval and all cost for sampling and testing shall be at the owner's expense for this Option.

    b) Stage 2 – Sampling and Results:

        i. If Option 2 or Option 3 comeback positive, the Property Owner will be responsible for all costs of cleanup and additional testing.

ii. Option 3 testing requires that the Property Owner engage a State Department of Health certified company, to perform the necessary sampling and run the sample(s). The City CCS must be present during all testing or the testing will be considered invalid. If the building is certified clean through testing, only then will a RPBA not be required. If the building is found to be not certified clean, a RPBA shall be required and the property owner must follow current City permitting, installation, and inspection procedures prior to receiving City water. All permitting and installation costs of the RPBA are the responsibility of the property owner.

1:06 AUXILIARY SUPPLY

All properties receiving irrigation water from a source other than from the City shall be required to have Reduced Pressure Backflow Assembly at the service connection.

Any premise which has any other auxiliary supply as that is defined in Section 1:01 of this document and which in connected, directly or indirectly, to the City's water supply, will be required to install an assembly commensurate with the degree of hazard.

1:07 IRRIGATION SYSTEM USING THE CITY'S WATER SUPPLY

All properties which use the City's water for irrigation shall be protected in accordance with the plumbing code and have a minimum of a Double Check Valve Assembly (DCVA). In the event any system is equipped with an injector system, a Reduced Pressure Backflow Assembly (RPBA) will be required.

1:08 FIRE SYSTEMS

An approved double check detector backflow assembly shall be the minimum protection on all new fire sprinkler systems using piping material that is not approved for potable water use, and/or that does not provide for periodic flow-through. A reduced pressure detector assembly or RPDA must be installed, if any solution other than the potable water can be introduced into the sprinkler system. Retrofitting on fire sprinkler systems will be required in each of the following circumstances:

(a) Where improper maintenance hasoccurred.

(b) On all high hazard systems.

(c) Wherever a CCS deems necessary.

(d) Wherever required by the WAC.

1:09 TEMPORARY HYDRANT METERS AND VALVES

Backflow protection will be required on temporary hydrant meters and all other temporary connections, including blow-offs. An approved air gap or appropriate assembly, commensurate with the degree of hazard, will be determined on a case-by- case basis by the City's CCS. The air gap or assembly must be installed, inspected and maintained in accordance with the WAC, and this Policy

1:10 MOBILE UNITS

Any mobile unit or apparatus, as defined in Section 1 of this Policy, which uses the City's water from any premises or piping within the distribution system, shall first obtain permission from the City. The mobile unit will be inspected to assure appropriate backflow protection is installed in accordance with the WAC and this Policy.

1:11 RIGHT-OF-WAY ENCROACHMENT

(1) No person shall install or maintain a backflow assembly upon or within any County, State or City right-of-way except as provided in this Section.

(2) A backflow assembly required by the City may be installed upon or within any County, State or City right-of-way only if the owner proves to the City that there is no other feasible location for installing the assembly, and installing it in the right-of-way will not interfere with traffic or utilities. The City retains the right to approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.

(3) All permits required by the City or County code to perform work in the right-of- way shall be obtained by the property owner or their lessee and/or tenant.

(4) A property owner shall, at the request of the City and at the owner's expense, relocate a backflow assembly, which encroaches upon any right-of-way, when such relocation is necessary for street or utility construction or repairs for purposes of public safety.

1:12 PLUMBING CODE

As a condition of water service, customers shall install, maintain, and operate their piping and plumbing systems in accordance with all Washington State Plumbing Codes.

1:13 ACCESS TO PREMISES

Authorized employees of the City, with proper identification, shall have access during the hours of 8:00 a.m. to 4:00 p.m. to all parts of commercial, industrial and residential premises and within the buildings to which water is supplied. If access to the premises or the interior of a structure during these hours is denied, a reduced pressure backflow assembly shall be required to be installed at the service connection to that premises.

1:14 TESTING AND REPAIRS

Backflow assemblies shall be tested at installation, annually, backflow incident, repaired, reinstalled or relocated or an air gap is re-plumbed in accordance with the requirements set out in the WAC and, this Policy.

1:15 RESPONSIBILITIES OF BACKFLOW PREVENTION ASSEMBLY TESTERS

All backflow assembly testers operating within the City's water systems shall be certified in accordance with all applicable State regulations and shall comply with all stipulations WAC in this Policy.

1:16 MAINTENANCE OF ASSEMBLIES

Backflow assemblies shall be maintained in accordance with the requirements set out in the WAC and this Policy.

1:17 INSTALLATION REQUIREMENTS AND SPECIFICATIONS

Backflow prevention assemblies shall be installed in accordance with the requirements set out in the WAC and the most recent edition of the Plumbing Code.

1:18 THERMAL EXPANSION

If a closed system has been created by the installation of a backflow assembly, it is the responsibility of the property owner to eliminate the possibility of thermal expansion.

1:19 PRESSURE LOSS

Any reduction in water pressure caused by the installation of a backflow assembly is not the responsibility of the City. The City will give reasonable assistance to the owner regarding information on adequate sizing of assemblies and proper plumbing practices in order to provide required pressure and flows for fire protection.

1:20 PARALLEL INSTALLATION

Premises where non-interruption of water supply is critical shall have two (2) assemblies of the same type installed in parallel. They shall be sized in such a manner that either assembly will provide the minimum water requirements while the two (2) together will provide the maximum water requirements.

1:21 NEW CONSTRUCTION

(1) On all new non-residual construction, an approved backflow assembly shall be installed at the service connection. The type of assembly will be commensurate with the degree of hazard as determined by a CCS

(2) When a building is constructed on commercial premises, and the end use of the building is not determined or could change, a reduced pressure backflow assembly shall be installed at the service connection to provide protection of the public water supply in the event of the most hazardous use of the building.

1:22 RESIDENTIAL SERVICE CONNECTIONS

Any residential property, which has been determined to have an actual or potential cross connection and/or has violated the Plumbing Code, this Policy in any way, shall be required to install an approved backflow assembly in accordance with this Policy.

1:23 RENTAL PROPERTIES

The property owner is responsible for all in-premise cross connections. It is the responsibility of the property owner to determine if a cross connection is created when the tenants change or the plumbing is altered in any way.

The property owner is responsible for the installation, testing and repair of all backflow prevention assemblies on his/her property.

1:24 RETROFITTING

Retrofitting shall be required on all service connections where an actual or potential cross connection exists, and where ever else the City deems retrofitting necessary.

1:25 COSTS OF COMPLIANCE

All costs associated with the purchase, installation, inspections, testing, replacement, maintenance, parts, and repairs of the backflow assembly are the financial responsibility of the property owner.

1:26 RECOVER OF COSTS

Any water customer violating any of the provisions of this Policy and who causes damage to or impairs the City's water system, including, but not limited to, allowing contamination, pollution, any other solution or used water to enter the City's water system, shall be liable to the City for any expense, loss ordamage caused by such violation. The City shall collect from the violator for the cost incurred by the City for any cleaning, purifying, repair or replacement work or any other expenses caused by the violation. Refusal to pay the assessed costs shall constitute a violation of this Policy and shall result in the termination ofservice.

1:27 EMERGENCY SUSPENSION OF SERVICE

The Manager or his designee may, without prior notice, suspend water service to any premises when such suspension is necessary to stop the eminent threat of any actual or potential cross connection as defined in this Policy.

1:28 NON-EMERGENCY SUSPENSION OF SERVICE AND/OR INSTALLATION OF ASSEMBLY

The Manager or his designee may suspend, with proper notice, the water supply to any premises where the conditions of this Policy or WAC have been violated.

In lieu of suspension of service, the City may install a reduced pressure principle backflow assembly as premise isolation.

The owner of the property will be responsible for all costs associated with the purchase, installation and testing of this assembly.

1:29 PENALITES

Any violation of this Policy or any regulation, rule or permit of the City issued pursuant to this Policy will result in additional administrative and investigative expenses, as well as potential damage to part of the City's system; The exact amount of these expenses cannot be reasonably anticipated at the time this Policy is adopted. Based on the certainty of additional expense, and the uncertainty of the amount of that expense, the City shall charge any person, property owner, firm, corporation or business entity $2,000.00 per violation of (a) this Policy or (b) any regulation, rule or permit of the City issued pursuant to this Policy. Each continuing day's violation under this Policy is a separate violation and will result in an additional $2,000.00 charge. This provision shall not preclude the City from filing suit to enjoin any anticipated or actual violation. This provision shall not limit the City's right to collect from the violator any costs, expenses or damages that exceed the charges made against the violator under this provision, or enforcing any additional remedy that law and equity may allow. The City retains all legal rights arid remedies available to it pursuant to local, state and federal law.

1:30 FALSIFYING INFORMATION

Any person who knowingly makes any false statement, representation, record, report or other document filed or required to be maintained pursuant to this Policy or who falsifies, tampers with, bypasses or knowingly renders ineffective or inaccurate any backflow assembly, device or method required under this Policy, shall (in addition to civil and/or criminal penalties by state law) be subject to a penalty.

1:31 CONSTITUTIONALITY AND SAVING CLAUSE

That if any provision, section, clause or phrase of this Policy, or the application of same to any person or set of circumstances are for any reason held to be unconstitutional, void, invalid, or for any reason unenforceable, the validity of the remaining portions of this Policy or its application to other persons or circumstances shall not be affected thereby, it being the intent of the Commissioners of the City of Shelton in adopting this Policy that no portion hereof or provision or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality or invalidity of any other portion, provision, or regulation.

Backflow Incident Response Plan for City of Shelton

A. General

This Backflow Incident Response Plan should be considered a supplement to the City of Shelton's Emergency Plan.

City of Shelton (hereafter the City) should immediately begin a backflow incident investigation whenever the initial evaluation of a water quality complaint indicates that:

1. A backflow incident has occurred (i.e., drinking water supply has been contaminated) or may have occurred; or
2. The complaint can't be explained as a "normal" aesthetic problem.

Also, whenever a water main break (or power outage for pumped systems) causes a widespread loss of water pressure in the system (creating backsiphonage conditions), the City should initiate a check of distribution system water quality as a precursor to the need for a backflow incident investigation.

WAC 246-290-490 requires the City to notify DOH, the Local Administrative Authority and local health jurisdiction as soon as possible, but no later than the end of the next business day when a backflow incident contaminates the potable water supply (in the distribution system and/or in the customer's plumbing system). The City should include a list of emergency contact telephone numbers at the beginning of the water system's O & M Manual, so that the information is readily available when an incident occurs.

A backflow incident investigation is often a team effort. The investigation should be made by or initially led by the DOH-certified Cross-Connection Control Specialist employed by the City of Shelton. The investigation team may include state health (regional) staff, local health personnel and/or local plumbing inspectors.

The City can get more detailed guidance on how to respond to a backflow incident from the manual, *Backflow Incident Investigation Procedures*, published by the Pacific Northwest Section, American Water Works Association (PNWS-AWWA). Contact information for the PNWS-AWWA is provided in Appendix F.

B. Short List of Tasks

The City can use the following short list of tasks as initial guidance for dealing with backflow incidents. The City should consult the most recently published edition of the PNWS-AWWA *Backflow Incident Investigation Procedures Manual* referenced above for greater detail as soon as possible after learning of a possible or confirmed backflow incident. Note: the water system is referred to as the City of Shelton in the short task list.

1. **Customer Notification**
   a. As soon as possible, the City of Shelton will notify customers not to consume or use water.
   b. The City of Shelton will start the notification with the customers nearest in location to the assumed source of contamination (usually the customer(s) making the water quality complaint).
   c. The City of Shelton will inform the customer about the reason for the backflow incident investigation and the City of Shelton's efforts to restore water quality as soon as possible. The City of Shelton will let the customer know that customers will be informed when they may use water, the need to boil water used for consumption until a satisfactory bacteriological test result is obtained from the lab, etc.
   d. Where a customer cannot be contacted immediately, the City of Shelton will place a written notice on the front door handle, and a follow-up visit will be made to confirm that the customer received notice about the possible contamination of the water supply.
   e. When dealing with a backflow incident, the City of Shelton will let customers know that it could take several days to identify the source and type of contaminant(s) and to clean and disinfect the distribution system.

2. **Identification of Source of Contamination**
   a. The City of Shelton will give consideration to the distribution system as a potential source of the contaminant (e.g., air valve inlet below ground).
   b. The City will not start flushing the distribution system until the source of contamination is identified (flushing may aggravate the backflow situation, and will likely remove the contaminant before a water sample can be collected to fully identify the contaminant).
   c. The City will conduct a house-to-house survey to search for the source of contamination and the extent that the contaminant has spread through the distribution system. Note: a check of water meters may show a return of water (meter running backward) to the distribution system.

d. When the cross connection responsible for the system contamination is located, the City of Shelton should discontinue water service to that customer, until the customer completes the corrective action ordered by the City.

3. **Isolation of Contaminated Portion of System**
   a. The City of Shelton will isolate the portions of the system that are suspected of being contaminated by closing isolating valves; leave one valve open to ensure that positive water pressure is maintained throughout the isolated system.
   b. The City will be sure to notify all affected customers in the isolated area first and then notify other customers served by the system.

4. **Public Health Impacts**
   a. The City will seek immediate input from and work with state and local health agencies to accurately communicate and properly mitigate potential health effects resulting from the backflow incident.
   b. If appropriate, the City will refer customers that may have consumed the contaminant or had their household (or commercial) plumbing systems contaminated to public health personnel and Local Administrative Authorities (plumbing inspectors).

5. **Cleaning/Disinfecting the Distribution System**
   a. The City of Shelton will develop and implement a program for cleaning the contaminated distribution system consistent with the contaminant(s) identified.
   b. Where both chemical and bacteriological contamination has occurred, the City will disinfect the system after the removal of the chemical contaminant.
   c. Where any bacteriological contamination is suspected, the City will provide field disinfection.

C. Additional Information on Cleaning/Disinfecting the Distribution System

Most chemical or physical contaminants can be flushed from the water distribution system or customer's plumbing system with adequate flushing velocity. However, this may not be the case in systems where scale and corrosion deposits (e.g., tuberculation on old cast iron mains) provide a restriction to obtaining adequate flushing velocity, or where chemical deposits or bacteriological slimes (biofilm) are present (on which the chemical contaminant may adhere).

To remove a chemical or physical contaminant from the distribution system, The City may need to:

1. Physically clean the affected area using foam swabs (pigs); and/or
2. Alter the form of the chemical contaminant (e.g., through oxidation using chlorination or addition of detergents).

When adding any chemical (including chlorine) to remove a contaminant from the distribution system, it is essential that the City of Shelton fully understand the chemistry of the contaminant. **Adding the wrong chemical could make the contaminant more toxic to customers and/or more difficult to remove from the distribution system.**

To disinfect water mains using the "slug" or "continuous flow" method, a field unit should be used for chlorine injection, such as a chemical feed - metering or proportioning pump for sodium hypochlorite. The City should contact the appropriate DOH regional office to discuss proposed approaches to contaminant removal and disinfection prior to taking corrective action.

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CITY OF SHELTON PUBLIC WORKS
Water Department
525 West Cota Street, Shelton, Washington 98584
(360) 432-5192 (360) 432-9761 (FAX)

GENERAL

The purpose of a cross connection control program is to protect the health of water consumers and the potability of the public water system by assuring the control of cross connection is accomplished by three basic methods:

1. Inspection and regulation of plumbing within the premises.
2. Installation of approved Washington State backflow prevention devices(s) on water service lines to the premises where hazardous cross connection exist by means of premise isolation and the combination of backflow device(s) for low hazardous situations.
3. Costs of investigation cleanup, plus exposure to legal liability.

PROGRAM OBJECTIVES

1. Plan review.
2. Survey process, new and existing.
3. Customer Interaction, educating, compliance, find notification issues.
4. Records management.
5. Investigate backflow incidents.
6. Backflow yearly testing and repair
7. Periodical inspections of premises
8. The customer's plumbing system is considered a health hazard, requiring premises isolation with air gap or RPBA on high health hazard and backflow devices(s) on low health hazard for maximum health protection and minimum risk and liability for ownership of water system.

HAZARD SURVEYS

When making a preliminary assessment of all customers for the purpose of determining the need for mandatory premises isolation under state regulations make a rudimentary evaluation of the premises to confirm that they fall within the category requiring mandatory premises isolation. Conducting the survey, City of Shelton building inspector and cross connection control specialist. Re-survey of a customer will vary based on the risk assessment made in the initial (or previous) survey. There will be an on site inspection and a cross connection survey report written up on the type of cross connection location and recommended remedy to be corrected within 90 calendar days. One copy of the report goes to the customer and the other put on file at the City's Water Department.

ELIMINATION & CONTROL OF CROSS-CONNECTION

1. On site survey - Identified cross connection must be corrected within 90 calendar days.
2. Second Notice - When 90 days has elapsed to be completed within 15 days of receipt of letter.
3. Third Notice - Notified to take the necessary steps to rectify the situation within 10 days of receipt of letter.
4. If all above has not been done there is a notice of discontinuance of water supply given out or notices of fines to be established.

TYPE OF BACKFLOW PREVENTORS

The following are approved for water systems:

1. Approved air gap.
2. Reduced pressure backflow assembly. (RPBA)
3. Double check valve assembly. (DCVA)
4. Pressure vacuum breaker assembly.
5. Spill resistant vacuum breaker assembly.
6. Reduced Pressure Detector assembly (RPDA)

7. Double Check Detector assembly (DCDA)

All backflow prevention assemblies have to be Washington State approved and are required to be installed per the cross connection control specialist installation requirements.

QUALIFIED PERSONNEL

1. Building Inspector - CCCS
2. Water Department Personnel - CCCS
3. Cross Connection Control Specialist and Backflow Assembly Tester.

Water Department personnel are given the opportunity to take cross connection classes.

TESTING AND INSPECTION OF BACKFLOW PREVENTORS

Tests and/or inspection shall be conducted:

1. At the time of initial installation
2. Annually after initial installation or more frequently if its test indicates repeated failures and after the assembly is repaired or moved.

ENSURING ANNUAL TESTING

The following are hand delivered:

1. Annual Testing Letter
2. A list of Washington State Assembly Testers
3. A backflow assembly test report form.

ASSEMBLY TESTING QUALITY ASSURANCE

1. Backflow Assembly Tester Qualification - Must have certification number from Dept. of Health on their test report.
2. Must mail or fax yearly verification of calibration on test equipment.
3. Acceptable test report forms only and filled out completely.
4. City of Shelton Water Department has an approved Backflow Assembly Tester list.
5. Testing to be done in a 30 day time frame.

BACKFLOW INCIDENT RESPONSE

To identify basic changes in Water:

1. A significant change in pH.
2. A significant change in temperature.
3. Color
4. Odor
5. Increased Turbidity.

Screen the complaint to determine its type of severity, obtain essential information from the customer, make decisions on what information to give to the customer, make a decision on what information to give to the public, locate the source of the contamination and then isolate that source. Notification shall then be made to the local administrative authority and local health jurisdiction as soon as possible.

The extent of the spread of contamination through the distribution system is then determined and corrective action to clean the contamination from the distribution system is completed. Service is then restored to the customer and a backflow incident report form is put on file.

PUBLIC EDUCATION

There are two public announcements that are put in with the City's bill inserts. One that explains what cross connection is and the other on cross connection and backflow devices.

RECORD KEEPING

Cross connection records are kept by the Water Department two ways:

1. Paper file - by months on testing reports that are done yearly.
2. Computer - Noting month, address, name of customer(s), year it was installed, type of hazard, and type of device being used.

RECORDS FOR LOCAL ADMINISTRATIVE AUTHORITIES (L.A.A.)

1. Mason County Permit Assistance Center - Backflow device(s) for low hazard device(s) and high hazard device(s). It is requested that for those properties located outside the City limits but within the UGA and currently connected to the City water system that the City of Shelton Building Department process all plumbing permits.

REPORTING REQUIRMENTS TO DEPT. OF HEALTH

1. Backflow Incident Report.
2. Cross connection annual summary report.
3. Records shall be kept for five years.

RECLAIMED WATER

Car washes can use reclaimed water but there has to be a backflow device installed on the water supply. The only device(s) accepted is a reduce pressure backflow assembly.

PROHIBITION OF INTENTIONAL RETURN OF USED WATER

Backflow device(s) shall be installed at service connection or within any premises, on which any substance is handled under pressure so as to permit entry into the public water system, or where a cross connection could reasonably be expected to occur. This shall include the handling of process water and cooling waters.

UNAPPROVED AUXILIARY WATER SUPPLIES

Water supplies not interconnected with the public water systems are required to install a backflow device, which would be a reduce pressure backflow assembly only, within a specified time.

DEALING WITH TANKER TRUCKS

All tanker trucks are inspected before they are allowed to fill up with water. The truck must have a backflow device or an air gap on filling pipe.

CCC REQUIREMENTS IN THE USE OF WATER FROM FIRE HYDRANTS OR TEMPORARY CONNECTIONS

When using a fire hydrant, there will be a double check valve assembly installed on fire hydrants. Temporary connection will not be allowed.

OTHER PUBLIC WATER SYSTEMS

1. Mobile Home Parks
   a. If each mobile home has its own water service, the customer shall install all backflow assemblies request by the CCCS.

   b. If there is only several meters on a mobile park then premise isolation will be required.

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CITY OF SHELTON PUBLIC WORKS
Water Department
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(360) 432-5192 (360) 432-9761 (FAX)

BACKFLOW INCIDENT REPORT FORM

Reporting Agency:_____ Report Date:_____

Reported By:_____ Title:_____

Mailing Address:_____

City:_____ State:_____ Zip Code:_____

Telephone:_____ Fax:_____

Date of Incident:_____ Time of Occurrence:_____

General Location (street,etc.):_____

Backflow Originated From:

Name of Premise:_____

Street Address:_____ City:_____

Contact Person:_____

Telephone:_____ Fax:_____

Type of Business:_____

Description of Contaminants:

(Attach Chemical Analysis of MSDS if available)

_____

_____

_____

Distribution of Contaminants:

Contained within customer's premise: ☐ Yes ☐ No

Number of persons affected:_____

Effect of Contamination:

Illness Reported:_____

Physical Irritation Reported:_____

_____

Cross Connection Source of Contaminant
(boiler, chemical pump, irrigation system, etc.)

_____

_____

Cause of Backflow:
(main break, fire flow, etc)

_____

_____

Corrective Action Ordered to Eliminate or Protect from Cross Connection:
(type of backflow preventer, location, etc.

_____

_____

Previous Cross Connection Survey of Premise:

Date:_____ By:_____

Type of Backflow Preventer Isolation Premise:

RPBA:_____ RPDA: DCVA:_____ DCDA:_____ PVBA: SVBA:
AVB:_____ AIR GAP:_____ NONE:_____ OTHER TYPE:_____

Date of Latest Test of Assembly:_____

Notification of State (Provincial Health Department):

Date:_____ Time:_____ Person Notified:_____

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Cross Connection Control

Cross Connection Control is implemented by:

1. Washington State Department of Health Division of drinking water WAC. 246.290.490
2. 1997 Uniform Plumbing Code/ WAC 51-46/ 51-47
3. AWWA Cross Connection Control Manual
4. City of Shelton Ordinance 15.08.080

Cross Connection Control

Backflow prevention assemblies are installed to prevent backflow of contaminates into drinking water through cross connections. A cross connection is any actual or potential physical connection between a public water system or consumer's water system and any source of non-potable liquid, solid, or gas that could contaminate the potable water supply by backflow or back pressure.

Under backflow or backpressure conditions, unprotected cross-connection can introduce biological, chemical, and/or physical contaminants into the drinking water supply. These contaminants can lead to waterborne disease outbreaks, chemical poisoning, physical injuries, and sometimes death.

There are seven types of backflow prevention assemblies:

1. Approved Air Gap
2. Reduced Pressure Backflow Assembly (RPBA)
3. Double Check Valve Assembly (DCVA)
4. Pressure Vacuum Breaker Assembly
5. Spill Resistant Vacuum Breaker Assembly
6. Reduced Pressure Detector Assembly (RPDA)
7. Double Check Detector Assembly (DCDA)

Note: All backflow prevention assembly have to be Washington State approved backflow assemblies; and assemblies are required to be installed per the City of Shelton standards.

CITY OF SHELTON
CROSS CONNECTION CONTROL SURVEY

Survey Due: / /

1) Property Address _____

2) Is this service for a ☐ Residence ☐ Business?

3) How tall is your Home or Building (# of stories) _____?

4) Do you have a Swimming Pool, Hot Tub, Jacuzzi Yes ☐ No ☐

5) Is your water system connected to or do you have any of the following (Check all that apply)?

☐ Water Softer ☐ Swamp Cooler ☐ Solar Heating ☐ Boiler Heating System ☐ Decorative Pond

☐ Medical Equipment ☐ Anti-Freeze Flush Kit ☐ Fire Sprinkler System ☐ Rainwater Harvesting

☐ Soft Drink Dispensers ☐ Sewer Grinding Pump ☐ None

6) Do you have an underground Lawn Irrigation System or Drip Irrigation System? ☐ Yes ☐ No

7) Do you have a Well, Well Pump or Booster Pump on your property? ☐ Yes ☐ No

8) Does a Creek, River or Spring run on or through your property? Yes ☐ No ☐

9) Do you have a Backflow Assembly on your property now? ☐ Yes ☐ No

10) Do you have any other water using equipment on your property not mentioned above? ☐ Yes ☐ No

Comments _____

_____

_____

Customer Name _____ Date _____

Phone # you can be reached at _____

Thank you for your assistance. Please return this survey to City of Shelton 1000 W. Pine St. Shelton WA. 98584. You may email rodgar.garrick@sheltonwa.gov If you have any questions, call (360) 432-5192 between 8a.m. - 4p.m. Monday- Friday.

Date:_____

Name:_____

Address:_____
_____

Dear Customer:

SUBJECT: CROSS CONNECTION CONTROL SURVEY—SCHEDULE

For the protection of the public water supply system, a survey of your premises has been scheduled for _____. This survey is a matter of mutual concern and benefit.

A copy of our brochure "Cross Connection Control" is attached describing the purpose of our survey. Your cooperation in this matter is most appreciated.

Before our survey date, should you require further information on this utility's Cross Connection Control and Backflow Prevention program, please contact me at (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Specialist

IRRIGATION SYSTEMS

Dear Customer:

If you have or are planning on installing an irrigation system, you must first comply with Washington State Law (WAC 246.290.490, and City of Shelton Municipal Code 15.08. These Laws require that **all irrigation systems have approved backflow prevention.** A plumbing permit is also required when installing an irrigation system.

Without proper backflow protection, your irrigation system could endanger the health of your family, neighbors, and others in the community who are using the public water system.

Washington State approved backflow assemblies are required to be installed per the City of Shelton, Design and Constructions Standards, must have all permits to install device(s), and must be tested by a Washington State Certified Tester upon installation and yearly thereafter:

1. Pressure Vacuum Breaker Assemblies (PVBA)
2. Double Check Valve Assemblies (DCVA)
3. Reduced Pressure Backflow Assemblies (RPBA)

The atmospheric vacuum breaker is the only backflow prevention device that does not require annual testing. However, the device(s) must be Washington State approved.

The City of Shelton Water Department requires proper installation of a Washington State approved backflow prevention assembly (BFP) on water supply piping which meet the following conditions:

1. **Double Check Valve Assembly (DCVA)** may be used on multi zone irrigation system, it protects against backpressure and backsiphonage, required on all pumped or elevated piping systems, which may cause backpressure. May be installed in irrigation box, must be tested and then requires annual testing.

2. **Reduced Pressure Backflow Assembly (RPBA)** required on all systems when fertilizers, herbicides, or other materials are injected into the irrigation system. Assembly must be installed a minimum of 12 inches above the ground. Assembly must be tested when installed and requires annual testing. RPBA must be installed above ground in hot box.

Note: PVBA'S, DCVA'S, RPBA'S, and AVB'S must appear on the most current Washington State approved list of backflow prevention assemblies.

Improper installations of a Washington State Approved Backflow Prevention Device or failure to have the backflow prevention device tested are grounds for fees or termination of the water service (Shelton Municipal Code 15.08). If you have any questions concerning backflow installations, certified testers, or approved backflow prevention devices, please contact Rodgar Garrick at (360) 432-5192.

CITY OF SHELTON PUBLIC WORKS
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ASSEMBLY INSTRUCTIONS for REDUCED PRESSURE BACKFLOW ASSEMBLY

1. The RPBA shall be installed with adequate space to facilitate maintenance and testing. It shall be tested after installation, by a Washington State Certified Backflow Assembly Tester to insure its satisfactory operation.

2. An RPBA shall not be installed in a pit below ground level. Semi-buried pits may be acceptable if the RPBA is installed above ground or maximum flood level in a vault with an approved air gap between the relieve valve port and a bore-sighed daylight drain.

3. The protective covering for the RPBA must include a daylight drain. The drain must be able to be bore sighted. It must be installed above ground or maximum flood level. Whichever is higher. The drain must also be able to handle the volume of water that potentially could be discharged from the relief valve port.

4. RPBA must not be installed within a vault or other protective covering.

5. RPBA must be protected from freezing.

6. An RPBA installed more than five (5) feet above floor level must have a platform under it for the tester or maintenance person to stand on. The platform must meet all applicable safety standards and codes.

7. When the RPA is located inside a building it shall be installed in a location where both the occasional spitting from the relief valve port and the possible constant discharge during a fouled check valve situation will not be objectionable. An approved air gap funnel assembly, either provided by the manufacturer or fabricated for the specific installation, may be installed to handle the occasional spitting of the relief valve due to pressure fluctuations. A line from this funnel assembly may then be run to an adequately sized floor drain of equal or greater size. It must be emphasized that the air gap funnel assembly will handle only the occasional spitting and will not control flow in a continuous relief situation.

8. Good plumbing practice recommends a strainer with blowout tapping behind and ahead of the RPBA.

9. For installations where 24-hour uninterrupted services are a necessity, a paralleled assembly should be provided to permit assembly testing and maintenance. The by-pass of a parallel assembly must be of the same type as the main line assembly (it must provide the same degree of protection).

Date:_____

Name:_____

Address:_____
_____

Dear Customer:

SUBJECT: ANNUAL TESTING—Backflow Prevention Device(s)

The backflow prevention device(s) installed in your water supply system is (are) due for annual testing as required by State Code (WAC 246-290-490) and City of Shelton Municipal Code (15.08). Please have the testing performed by a person holding a certificate from the Washington Environmental Training Resource Center, certifying them as a backflow prevention device tester. Enclosed for your convenience is a list of testers in the local area.

> Our records show you have _____ devices(s) at the above referenced location are due for annual testing. Please have this testing done within 30 days of the date of this letter.

If a device fails its test, please have the necessary repairs made within 30 days. Upon completion of a satisfactory test, fill out the enclosed Test and Maintenance Report and return it via mail to the City of Shelton Water Department at 1000 Pine Street, Shelton, WA 98584, or by fax to (360) 432-9761. Please return the sheet detailing backflow assembly information enclosed with notes made showing any changes.

Penalties, including fees and water service termination may result from failure to, or delay in, providing proof of satisfactory testing within the specified period. Additional information relative to this matter may be obtained by contacting me at (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Officer

Date:_____

Name:_____

Address:_____
_____

Dear Customer:

SECOND NOTICE

SUBJECT: ANNUAL TESTING—Backflow Prevention Device(s)

On _____ a letter was delivered to you concerning inspection and testing, or repair and retesting, of the existing cross connection control assemblies in the above premises that was to be completed within 30 days.

Our records show the backflow assembly(ies) on your premise are overdue for annual testing, or are in need of repair and retesting. Please have the assembly(ies) tested, or repaired and tested, by a Washington State Certified Backflow Assembly Tester and the reports completed and returned to City of Shelton Water Department at 1000 West Pine Street, Shelton, WA 98584, or faxed to (360) 432-9761, **WITHIN 15 DAYS** of the date of this letter. Enclosed for your convenience is list of testers on the local area.

If you have any questions please feel free to contact me at (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Officer

Date:_____

Name: _____

Address:_____
_____

Dear Customer:

THIRD NOTICE

SUBJECT: ANNUAL TESTING—Backflow Prevention Device(s)

By our letter dated _____, you were required to have the backflow prevention assembly on your water system tested and the Test Report filled out and one copy of each report returned to the Water Division by_____. Our second letter dated _____ notified you that you had fifteen (15) days to have the device(s) tested, or repaired and retested. As of this date, we still have not received the Test Report.

As stated in our letter, regulations for Cross Connection Control and City of Shelton Municipal Code Chapter 15.08 provide that the water purveyor shall discontinue water service or impose fees to any customer failing to cooperate in the annual testing of backflow prevention assemblies. Therefore, we must require the assemblies be tested and a copy of the completed Test Report returned to the City of Shelton Water Department at 1000 West Pine Street, Shelton, WA 98584, or faxed to (360) 432-9761, within **FIVE (5) DAYS** from the date of this letter or water service to the premise shall be terminated or fees imposed.

If you have any questions, please feel free to contact me at (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Officer

Date:_____

Name:_____

Address:_____
_____

Dear Customer:

SHUT OFF NOTICE

SUBJECT: ANNUAL TESTING—Backflow Prevention Device

Service Address:_____ Account No:_____

Dear Customer:

In accordance with WAC 246-290-490 and City Ordinance, your water service will be **terminated** on _____, due to failure to provide reports of satisfactory testing results for the backflow preventer(s) at the above address.

You have been notified previously of the potential for water service termination. To date we have no evidence of satisfactory test results for the backflow preventer(s) at the above address.

First Notice:
Second Notice:
Third Notice:

A standard fee for this shut off notice will be added to the utility bill for the account for this building. These fees may include, but are not limited to: shut off fees, reconnection fees, testing fees, staff time and equipment charges. If you wish to communicate with this office regarding this matter, please contact me at (360) 432-5192. These fees shall remain imposed until you have complied with the requirements of this utility.

If you would like more information regarding this issue, please call me at (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Specialist

Date:_____

Name:_____

Address:_____
_____

Dear Customer:

SECOND NOTICE

SUBJECT: CROSS CONNECTION CONTROL
ADDRESS:_____

On _____ an inspection was conducted at the address stated above. You were advised by letter dated_____ that it would be necessary for you to install a Washington State Approved backflow device(s) within ___ days. This time has elapsed.

Your attention is directed to the City of Shelton Ordinance No. 15.08.080, which establishes requirements for the protection of the potable water supply and for eliminating potential health hazards.

Please have the items in the inspection report completed **WITHIN FIFTEEN (15) DAYS** of receipt of this letter. Our office must be contacted when the work is done. If further information is required, please contact me (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Specialist

Date:_____

Name: _____

Address:_____
_____

Dear Customer:

THIRD NOTICE

SUBJECT: CROSS CONNECTION CONTROL

On _____, you were advised by letter that it would be necessary for you to take certain steps to minimize the danger of contamination of the public water supply in the above premises, by the installation of approved backflow protective devices.

A second letter was sent to you on _____ confirming the requirements, but as of this date no permit has been issued nor has any corrective action been taken.

Your attention is directed to City of Shelton Ordinance No. 15.08.070 "Cross Connection Prohibited" which sets forth the following requirements for the protection of the City water supply, and the recommendations for eliminating possible health hazards:

A. The installation of a cross-connection is prohibited.
B. Any such cross-connection now existing or here after installed is declared a nuisance and shall be abated immediately.

In view of the above, you are again notified to take the necessary steps to rectify the situation and obtain all necessary permits to complete this work, WITHIN TEN (10) DAYS OF THE RECEIPT OF THIS LETTER.

Failure to or delay in providing proof of installation of backflow prevention device(s) within the specified time period may result in penalties including fees and water service termination. If you wish to communicate with this office regarding this matter, please contact me at (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Specialist

Date:_____

Name: _____

Address:_____
_____

Dear Customer:

NOTICE OF DISCONTINUANCE

SUBJECT: CROSS CONNECTION CONTROL

You are hereby notified that in accordance with City of Shelton Ordinance No. 15.08.070, for public health protection, the water supply to your premise located at:_____ _____, will be discontinued on_____ and shall remain discontinued until you have complied with the requirements of this utility stated in the following letters:

First Notice:
Second Notice:
Third Notice:
Final Notice:

If you require more information or wish to communicate with this office regarding this matter, please call me at (360) 432-5192.

Sincerely,

Rodgar Garrick
Cross Connection and
Backflow Prevention Specialist

BACKFLOW ASSEMBLY TEST REPORT FORM

Name_____

Service Address_____

City_____ State_____ Zip Code_____

Assembly Type and Control For?_____

Assembly Location_____

Size_____ Make_____ Model_____ Type_____ SN_____

Line Pressure at Time of Test (PSI)_____

RPBA TEST	
PSI Drop Across #1 CV	
Relief Valve Opened	
#1 CV Closed Tight?	☐
#1 CV Leaked?	☐
#2 CV Closed Tight?	☐
#2 CV Leaked?	☐
Minimum 1" AG Provided?	☐
RPBA Passed Test?	☐

DCVA TEST	
#1 CV Closed PSID	
#2 CV Closed PSID	
#1 CV Closed Tight?	☐
#1 CV Leaked?	☐
#2 CV Closed Tight?	☐
#2 CV Leaked?	☐
Proper Installation?	☐
DCVA Passed Test?	☐

S/PVBA TEST	
Air Inlet Opened PSID	
Air Inlet Failed to Open?	☐
Check Valve PSID	
Check Valve Failed?	☐
S/PVBA Passed Test?	☐

Is This Proper Installation? Yes ☐ No ☐

Washington State Approved Assembly? Yes ☐ No ☐

Remarks_____

_____

_____

_____

Test Company_____ Phone_____

Equipment Make_____ Model_____ Serial Number_____

Tester Name_____ Certification #_____

Signature_____ Date of This Test_____

I certify this report is accurate, and I have used WAC 246-290-490 approved test methods and test equipment.

Repaired by_____ Certification #_____

Repaired Test By_____ Certification #_____

Return to: City of Shelton—City Shop, 525 West Cota Street, Shelton, WA 98584
(360) 432-5192 (360) 432-9761 (FAX)

City of Shelton

Certified Backflow Prevention Assembly Tester List

Tester Name/Company	Address	City/ST/Zip	Phone	Certification	
Andrew MELTON Smith Fire Systems Management	1106 54th Ave E.	Tacoma WA 98424	253-248-2360	B6169	12/31/20
Ed Sheridans Sheridans Backflow Testing	SE 100 MAJESTIC VIEW DR.	Shelton WA 98584	360-427-1025	B2203	12/31/20
Rene Herrera Herrera Backflow Testing	260 Emerald Lake Dr. E.	Grapeview WA 98546	360-462-0501	B5563	12/31/20
Steve Coke ADVANCED BACKFLOW & CROSS CONNECTION LLC	801 Lilly Rd NE #224	Olympia WA 98506	360-701-9963	B1807	12/31/20
William Mayfield Backflo Pro's INC	855 Trosper Rd. SW Ste 108-230	Tumwater WA 98512	360-951-6130	B4475	12/31/20

Appendix 9A

CAPITAL IMPROVEMENT PROGRAM PROJECT SHEETS

SUPPLY PROJECTS

S-01 New Well in Angleside PZ

Existing sources are sufficient to provide projected 2040 maximum day demand (MDD) but cannot meet City's goal of providing 2040 MDD with the largest supply out-of-service. With a capacity of 1,000 gpm, the future new well would be sufficient to meet the City's goal of providing 2040 MDD with largest supply out-of-service. If possible, it is recommended that this project is co-located with the new reservoir for project ST-02 in the Angleside Pressure Zone. This project is anticipated to transfer the water right from Shelton Springs to the New Well. The following is a summary of deficiencies, triggers, timing, and related CIP projects:

- **Deficiencies addressed:** The existing supplies cannot meet the City's goal of providing maximum day demands in the 2040 planning year with the largest supply out-of-service. This project provides redundancy to the system to supply the maximum day demand in the 2040 planning year with the largest supply out-of-service.
- **Triggers:** The project is recommended to meet the City's redundant supply goal of providing maximum day demand in the 2040 planning year with the largest supply out-of-service.
- **Timing:** This project is planned to occur in the long-term and take three years for design and construction.
- **Related Projects:** It is recommended the new Well be located near the New Angleside Reservoir (ST-02) to facilitate operation of the PZ.
- **Location Map:** A siting study is required to determine the location of the new Well, so a location map is not provided.

S-01: Example Infrastructure (City's Existing Well 4)

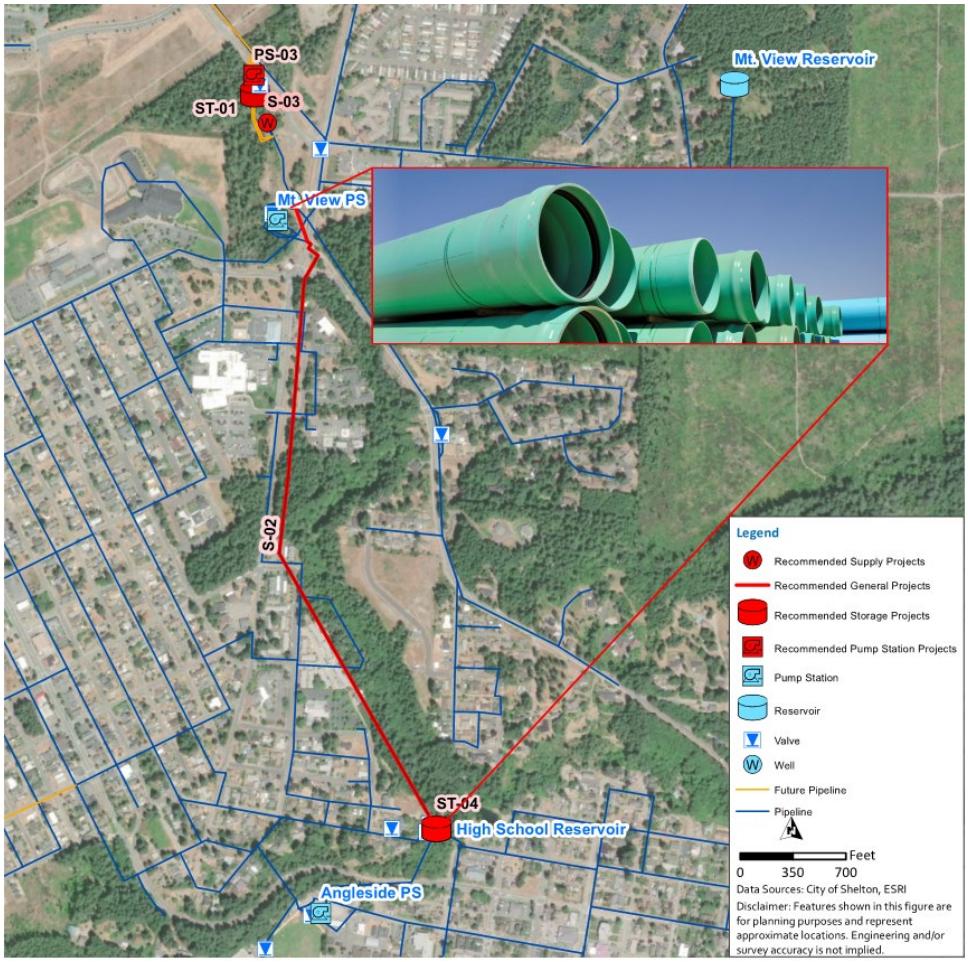
S-01: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$2,130,000	$609,000	$609,000	$203,000	$3,551,000

S-02 Well 1 Rehabilitation and Pipeline Pressurization

The existing 16-inch to 24-inch steel pipe from Well 1 to the High School tank is at end of life and needs to be replaced in the near future. The pipe is not pressurized and the proposed project is to replace the existing pipe from Well 1 to the High School Tank, eliminate connections that are no longer used, and pressurize the system. The existing pipe will be used as casing for the new 12-inch HPPE pipe, which will eliminate most of the surface excavation/disturbance. The cost for this project was provided by the City. The following is a summary of deficiencies and timing for the project:

- **Deficiencies addressed:** Pipeline condition and sanitary concerns in gravity pipe.
- **Timing:** The design phase for this project is planned to begin in 2021 and will be constructed in 2022.



S-02: Well 1 Rehabilitation and Pipeline Pressurization

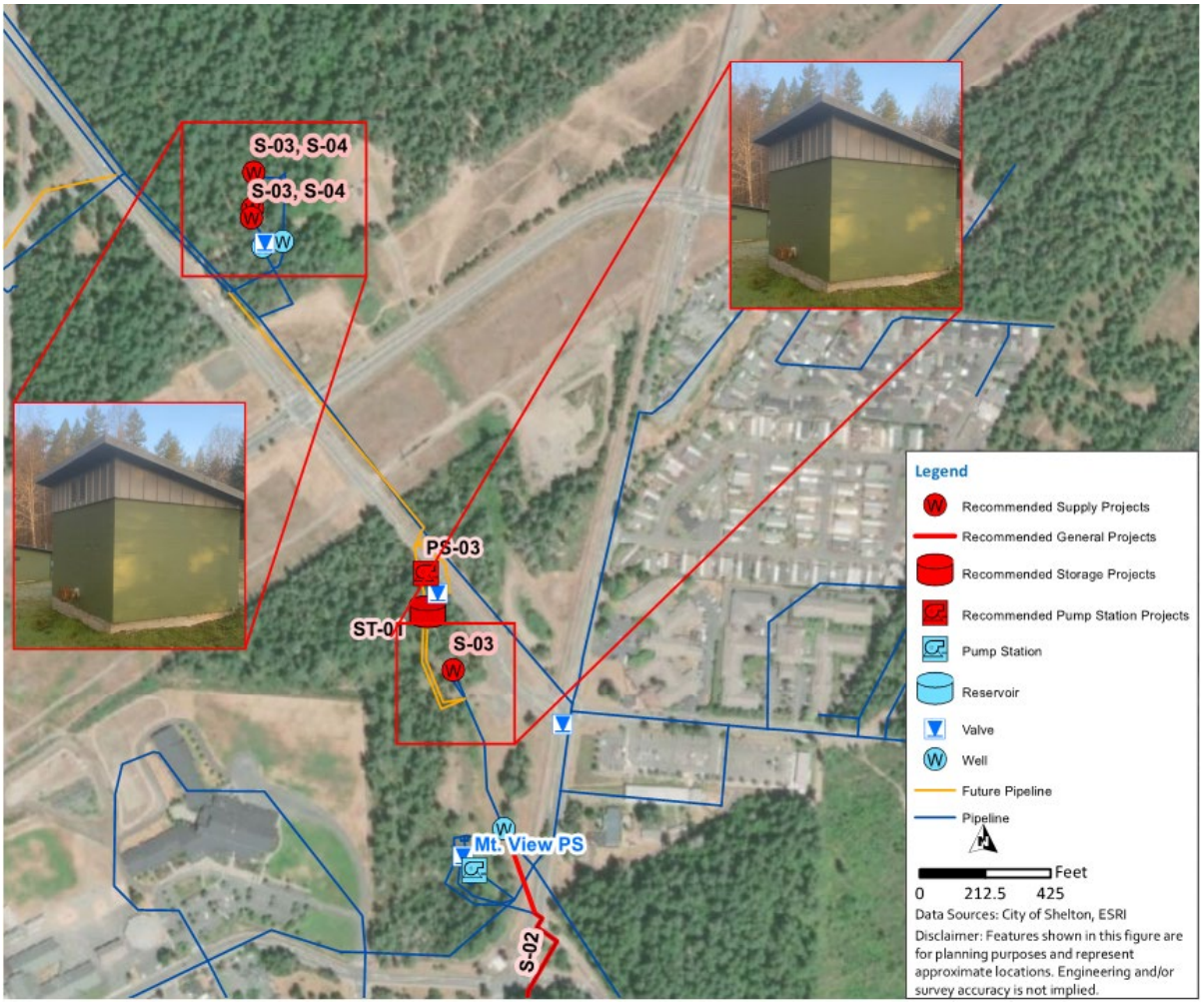
S-02: Cost Summary

	Subtotal	Total Cost
Project Cost	$1,008,000	$1,008,000

S-03 Onsite Chlorine Generation

The City is planning to convert to onsite chlorine generation at the well sites. The cost for this project was provided by the City. The following is a summary of triggers, timing, and related CIP projects:

- **Triggers:** City desires alterative to current chemical procurement.
- **Timing:** This project is planned for short-term and estimated to begin in 2024.
- **Related Projects:** S-04 New Generator for Well 3 & 4



S-03: Onsite Chlorine Generation

S-03: Cost Summary

	Subtotal	Total Cost
Project Cost	$200,000	$200,000

S-04 New Generator for Well 3&4

The existing generators for Wells 3 and 4 are aging and need to be replaced. The cost for this project was provided by the City. The following is a summary of deficiencies, timing, and related CIP projects:

- **Deficiencies addressed:** Aging generators.
- **Timing:** This project is planned for short-term and estimated to being in 2022.
- **Related Projects:** S-03 Onsite Chlorine Generation

S-04: New Generator for Well 3 & 4

S-04: Cost Summary

	Subtotal	Total Cost
Project Cost	$125,000	$125,000

STORAGE PROJECTS

ST-01 New Mt. View Ground Storage Reservoir

A new, ground storage reservoir with a capacity of 1.0 million gallons (MG) is recommended to provide additional storage to mitigate storage deficiencies identified in Chapter 5. It is recommended that the reservoir is located at the Well 1 site, where the reservoir will be able to provide storage for the Mt. View , High School, Angleside, and Capitol Hills pressure zones using existing infrastructure. This project is required to meet Washington State Department of Health (DOH) storage criteria. The following is a summary of deficiencies, triggers, timing, and related CIP projects:

- **Deficiencies addressed:** The water system is deficient on storage based on City and DOH criteria, especially emergency storage. The storage deficiency will be partially addressed by building a new ground storage tank.
- **Triggers:** This project is required to meet storage requirements in the near-term.
- **Timing:** The project is planned to start in 2028 and take two years to design and construct.
- **Related projects:** The Upper Mt. View Booster Pump Station (PS-03) is recommended to be co-located with the New Mt. View Ground Storage Reservoir so that PS-03 can pump water from ST-01 to the Upper Mt. View PZ in the future.

ST-01: New Mt. View Ground Storage Reservoir Location Map

ST-01: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$1,830,000	$549,000	$549,000	$183,000	$3,111,000

ST-02 New Angleside Reservoir

A new, at-hydraulic-grade storage reservoir with a capacity of 1.0 million gallons (MG) is recommended to provide additional storage in the Angleside PZ to mitigate storage deficiencies identified in Chapter 5. The new reservoir also allows either the existing or the new reservoir to be taking offline for maintenance without large impacts to customers. To aid in operations, it is recommended that the reservoir is located at the same site as the New Well in CIP Project S-01. This project is required to meet Washington State Department of Health (DOH) storage criteria. The new Angleside Reservoir can either be ground or standpipe-style tank. Both options will require a booster pump station (BPS). The following is a summary of deficiencies, triggers, timing, and related CIP projects:

- **Deficiencies addressed**: More storage is needed in the Angleside PZ to meet the City's storage requirement (based on DOH criteria). The storage deficiency in Angleside PZ will be addressed by building a new, at-hydraulic grade storage reservoir. The project will also assist with overall storage deficit by providing additional storage space in the new reservoir to be shared with the High School and Capitol Hill pressure zones through existing infrastructure.
- **Triggers:** This project is required to support future growth. The project will address the overall storage deficit in the system and the storage deficit in the Angleside PZ.
- **Timing:** This project is planned to occur in the long-term and take two years to design and construct.
- **Related Projects**: As described previously, it is recommended the new Reservoir be located near the new well in Angleside PZ (S-01).
- **Location Map:** A siting study is recommended as part of design to determine the location of the New Angleside Reservoir.

ST-02: Example Infrastructure (City's Existing Angleside Reservoir)

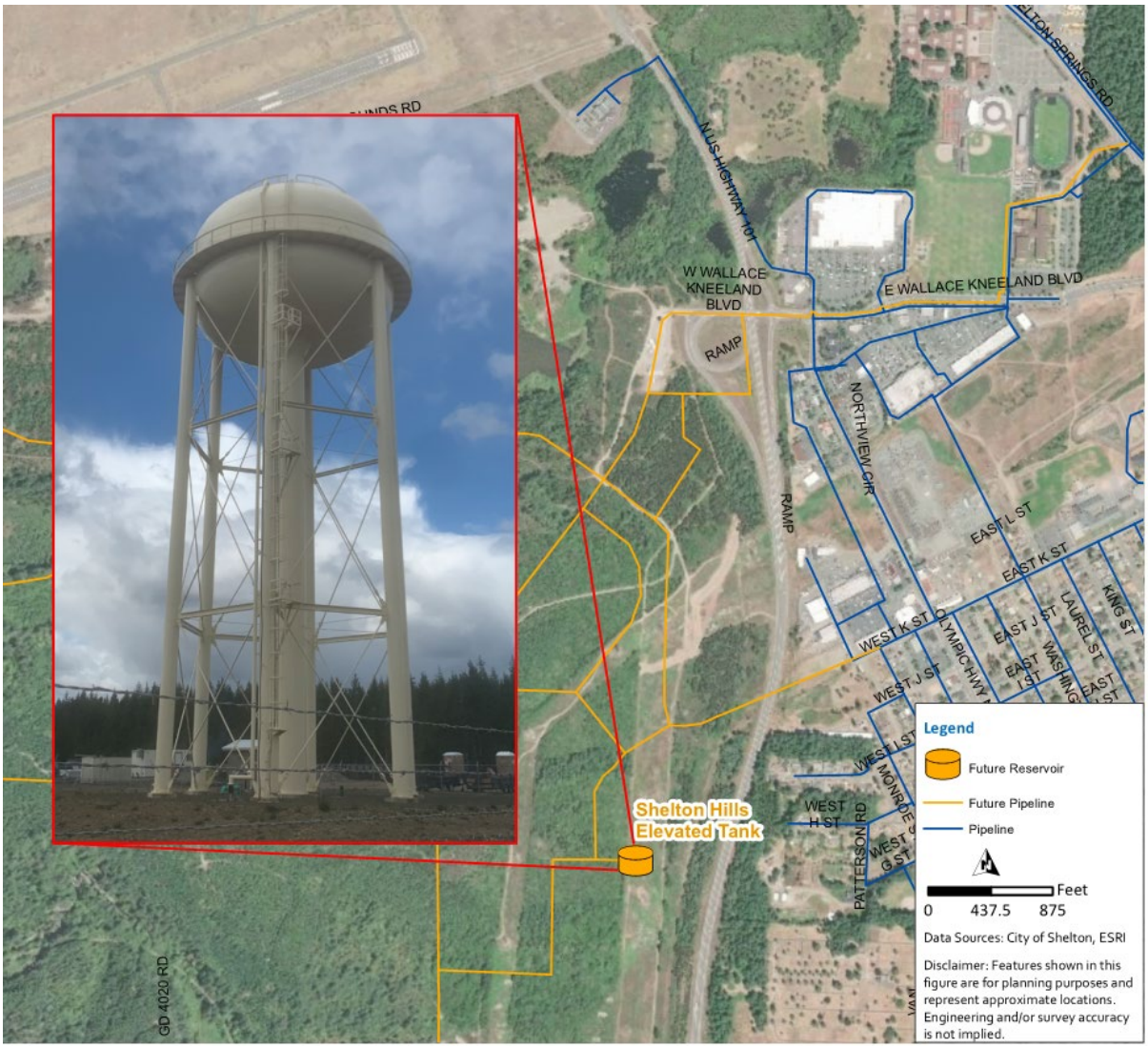
ST-02: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$2,570,000	$771,000	$771,000	$257,000	$4,369,000

ST-03 Shelton Hills Elevated Tank

A 0.41 MG Upper Mt. View Pressure Zone elevated tank is needed to provide adequate water service to Shelton Hills Development. This project is required to provide sufficient service pressures during fire flows in the proposed development (Phase 2 and beyond). This project is developer-funded, and project costs are not included in the City's CIP. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed**: A storage reservoir is needed to provide sufficient fire flows to the proposed development.
- **Triggers**: Due to system hydraulics, when Shelton Hills area develops, a new elevated tank will be required for Phase 2 and beyond.
- **Timing**: The timing of this project is based on development.
- **Cost Summary**: This project is developer-funded so costs are not included in the City's CIP Program.

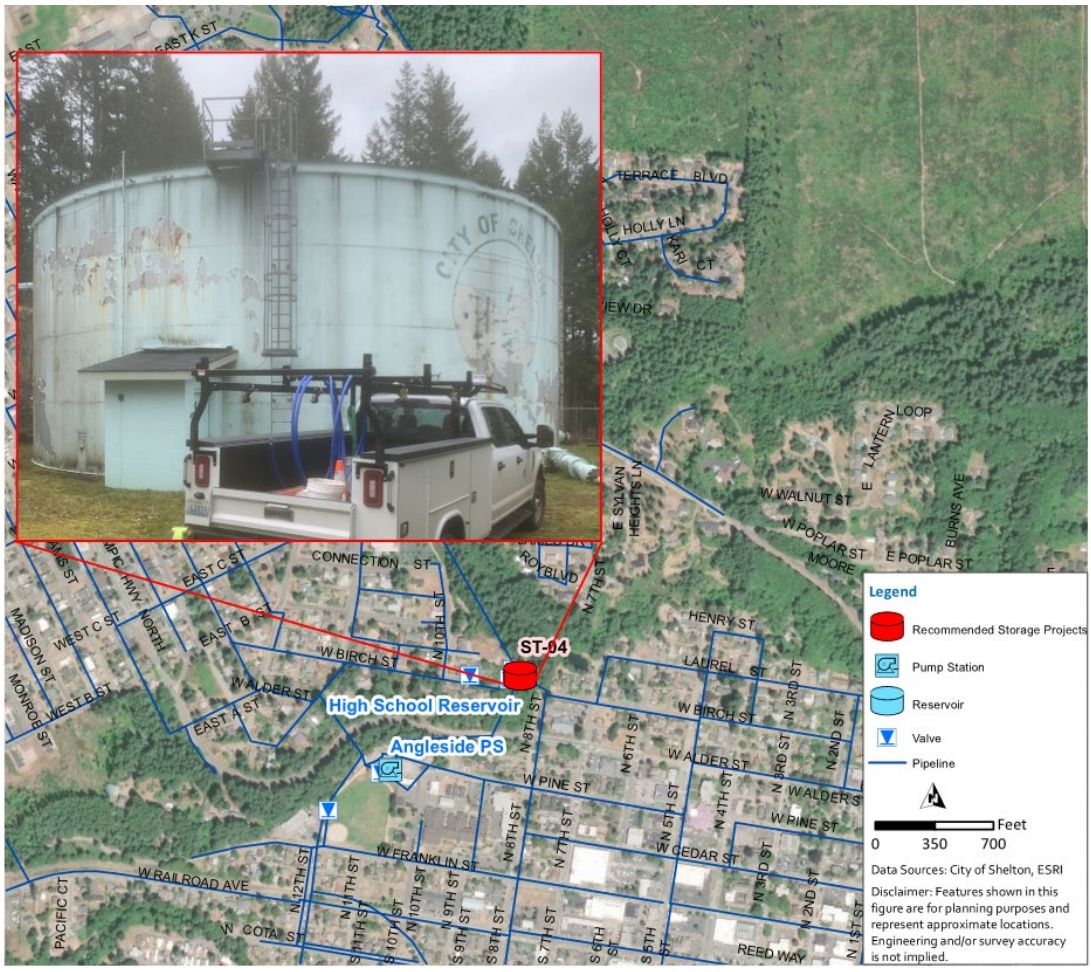


ST-03: Shelton Hills Elevated Tank Location Map

ST-04 High School Tank Recoating

Project ST-04 consists of recoating the High School Tank. The steel high school tank requires periodic recoating to protect the underlying metal from corrosion. Recoating uses a similar process to commercial spray painting with coatings appropriate for drinking water infrastructure. Both the interior and exterior coatings of the tank are failing and are in need of maintenance. This project was identified in the City's 2014 budget. The cost for this project was provided by the City. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** High School Tank is in need of recoating to protect the underlying steel tank from corrosion.
- **Triggers:** This project has already been identified by the City.
- **Timing:** the project is anticipated to be completed in two phases, in between 2022 and 2026.



ST-04: High School Tank Recoating Location Map

ST-04: Cost Summary

	Subtotal	Total Cost
Project Cost	$500,000	$500,000

PRESSURE ZONE IMPROVEMENT PROJECTS

PZ-01 Mt. View PZ Boosted Zone

Some of the customers within the Mt. View PZ experience low pressures during peak hour demands (PHD), which are caused by high service elevations. This project is to rezone a section from the Mt. View PZ to the Upper Mt. View PZ to provide PHD pressures greater than 30 pounds per square inch (psi) to all customers. The transmission of the Upper Mt. View PZ supply will require 3,000 LF of 12-inch pipe from the Well 3/4 site, south on N Shelton Springs Rd to N 13th St, and east on W Alpine Way to Alpine Dr. A PRV station and an additional 500 LF of pipe allowance is provided to complete the rezone. This main will allow service to future customers north of the existing service area in the Urban Growth Area that is anticipated to occur outside of the 20-year planning period. The following is a summary of deficiencies, triggers, timing, and future service notes:

- **Deficiencies addressed:** Pressures below 30 psi during peak hour demands in the Mt. View PZ to some customers with high service elevations.
- **Triggers:** Some customers at high elevations in the Mt. View PZ have pressures below 30 psi during peak hour demands. The DOH Water System Design Manual states that a water system must be able to deliver the peak hourly demand at the required pressure of 30 psi.
- **Timing:** This project is planned to occur in the long-term and will take one year for design and construction.

PZ-01: Mt. View PZ Boosted Zone Location Map

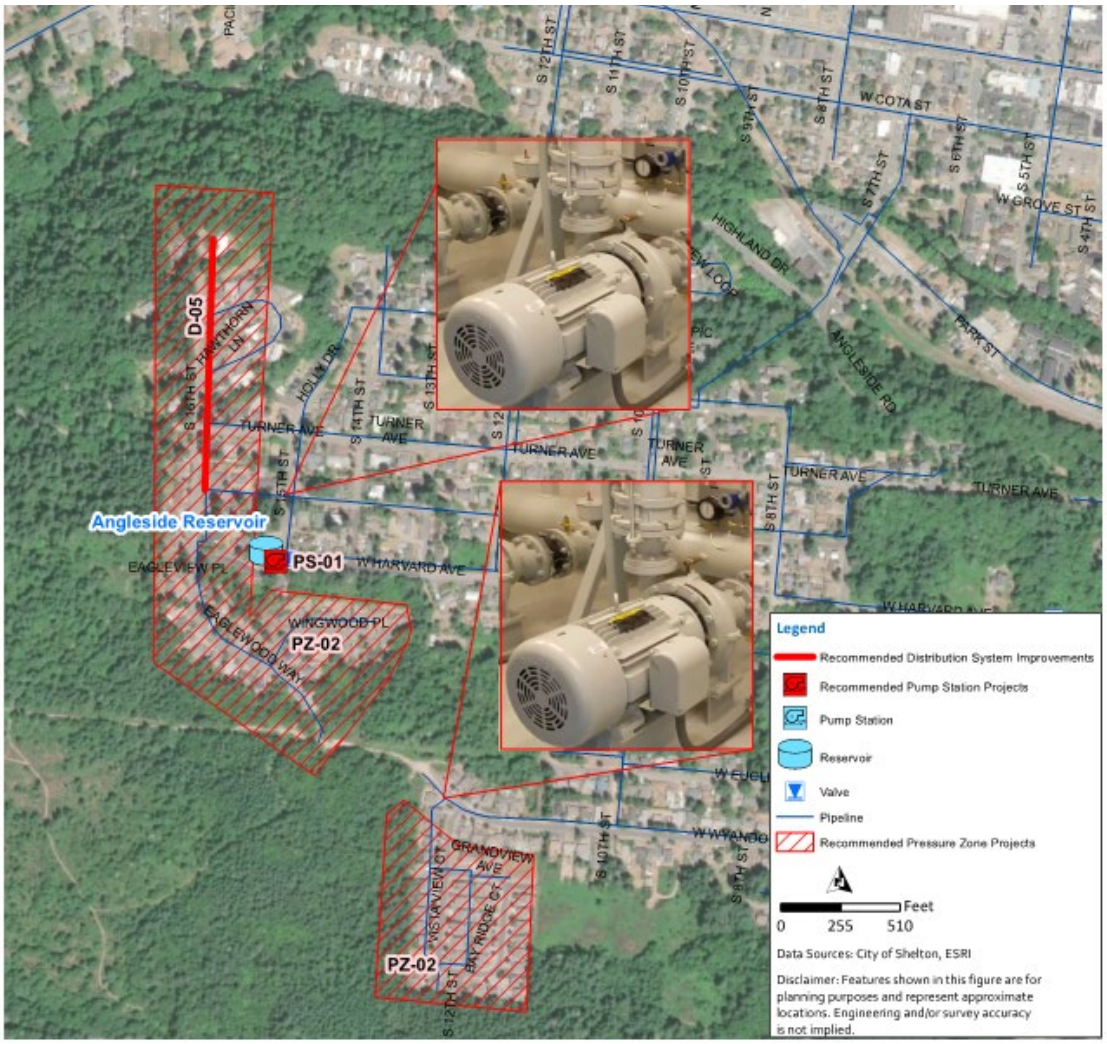
PZ-01: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$950,000	$285,000	$285,000	$95,000	$1,615,000

PZ-02 Angleside PZ Pressure Improvements

Some of the customers at high service elevations within the Angleside PZ experience low pressures during peak hour demands. This project consists of adding small jockey pumps to two areas of the PZ with high elevations to provide domestic flows are pressures greater than 30 psi during PHD. The two areas identified are: Vista View, and S 16th St/Eaglewood Way. This project will require improvements in the interim to address fire flow deficiencies at high elevations in the Angleside PZ as described in projects PS-01, G-01, and D-05. The following is a summary of deficiencies, triggers, timing, and related projects:

- **Deficiencies addressed:** Pressures below 30 psi at customers with high service elevations during peak hour demands in the Angleside PZ.
- **Triggers:** The DOH Water System Design Manual states that a water system must be able to deliver the peak hourly demand at the required pressure of 30 psi to new customers. Therefore, the booster stations will likely need to be established in response to new customer growth.
- **Timing:** This project is planned to occur in the long-term and will take one year for design and construction.
- **Related Projects:** Hydrant improvements identified in G-01 are recommended as an interim measure until additional CIP increase pressures to the customers. Angleside Reservoir PS Control Improvements (PS-01) and distribution systems improvements identified in D-05 will increase pressures to these customers during fire flows.



PZ-02: Angleside PZ Boosted Zone Location Map

PZ-02: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$798,400	$239,520	$239,520	$79,840	$1,357,280

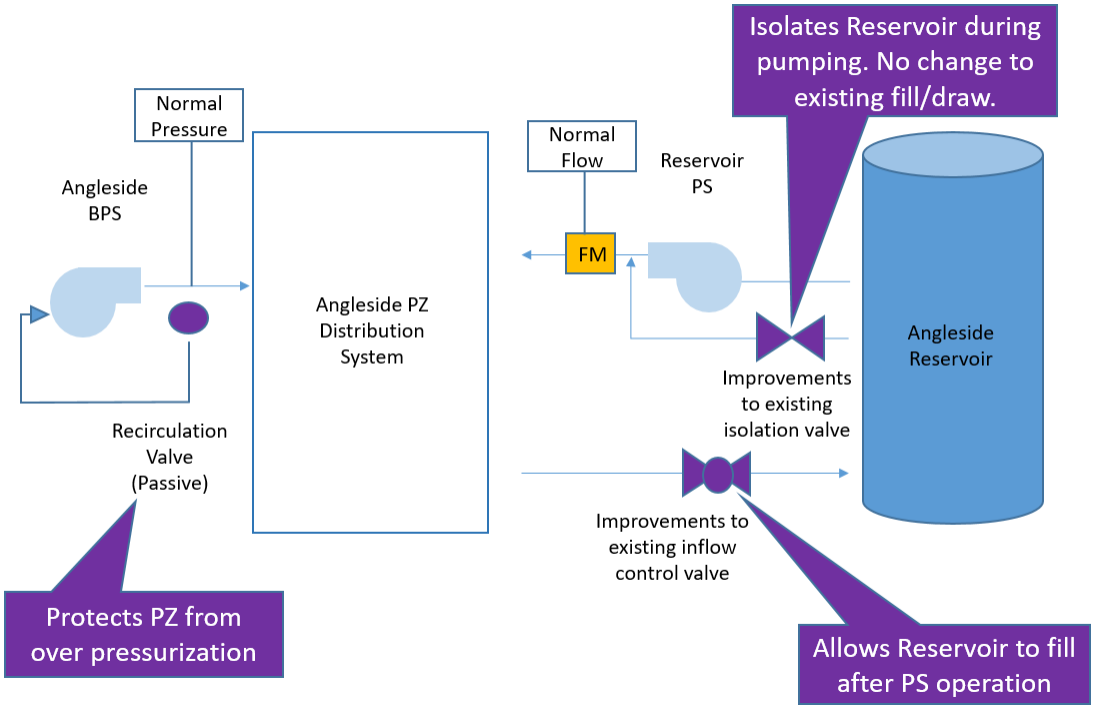
PUMP STATION PROJECTS

PS-01 Angleside Reservoir PS Control Improvements

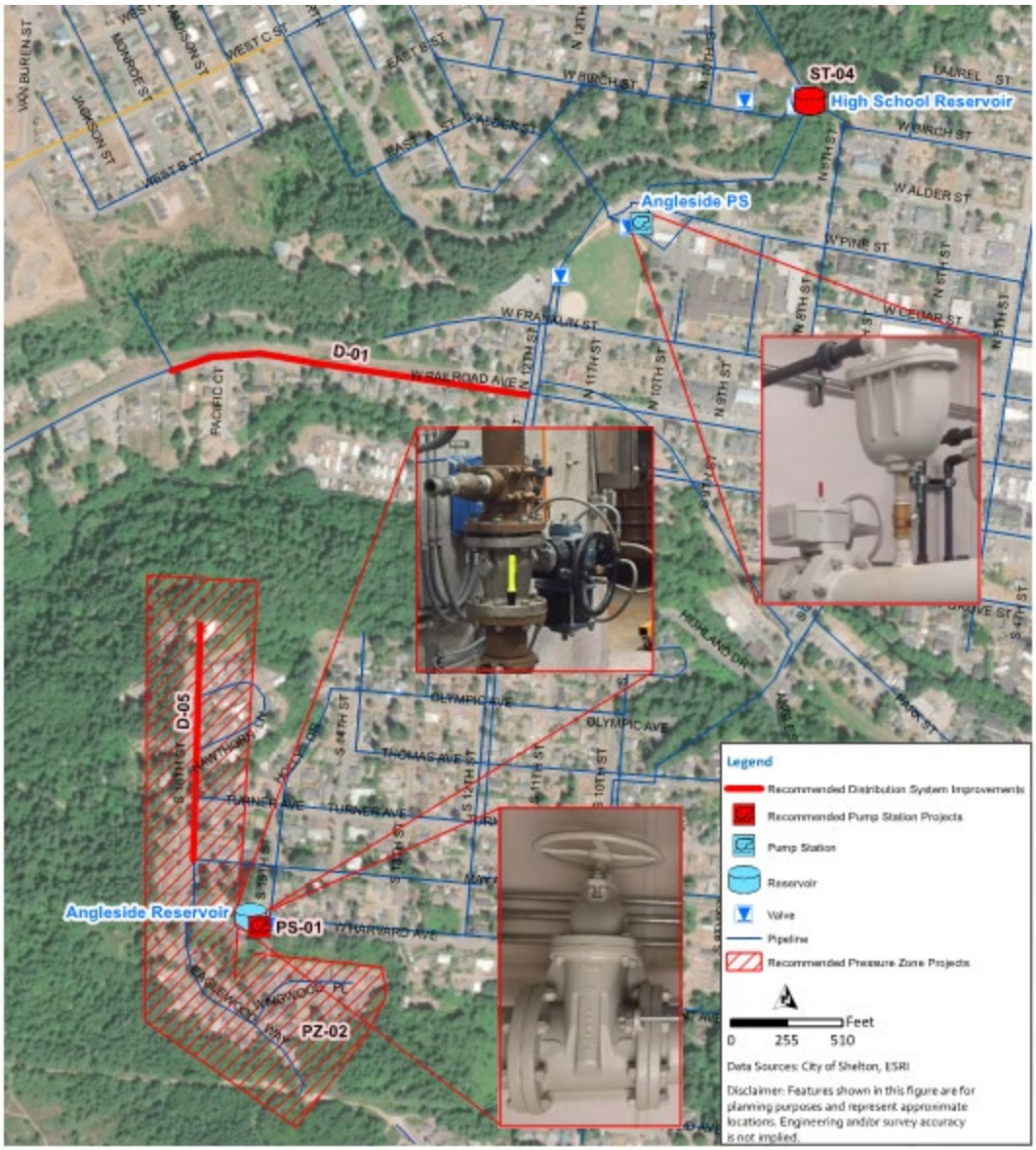
Higher pressures during fire flow are needed to address deficiencies in high elevation areas of the Angleside PZ. Currently, the Angleside Reservoir PS is run manually. The recommended project is to complete PS control improvements to allow automated use of the City's Angleside Reservoir PS. The Angleside Reservoir PS provides two benefits: (1) it increases system pressures during fire flows and (2) it allows greater use of water stored in the Angleside Reservoir. This project is anticipated to require new SCADA controls, new VFDs, improvements to existing control valves at the Angleside Reservoir PS, and potentially a new recirculation valve at the Angleside BPS, as shown in the below schematic.

The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** The residual pressures during fire flow scenarios are below the minimum threshold of 20 psi at high elevation locations in the Angleside PZ. Pressures below 30 psi are seen at customers with high service elevations during peak hour demands in the Angleside PZ. The Angleside Reservoir PS aids in addressing storage deficiencies by allowing a greater portion of the Angleside Reservoir to be used.
- **Triggers:** The project is recommended in the near-term to address are residual pressures during fire flow scenarios that are below the minimum 20 psi threshold.
- **Timing:** The project is planned to occur in two phases:
  - Phase 1 is planned to occur in 2022. This phase will use the existing pump station equipment to allow the pump station to be run via SCADA controls. It is anticipated that there will be limitations on how the pump station functions during this phase.
  - Phase 2 is planned to occur in the long-term and will take one year for design and construction. Long-term improvements to the existing pump station equipment will allow the pump station to function in all scenarios.
- **Related Projects:** The Angleside Reservoir PS may not automatically start for low flow hydrants if available flow is below control trigger. Hydrant improvements identified in G-01 are recommended as an interim measure until additional CIP increase pressures to the customers.



PS-01: Angleside Reservoir PS Control Improvements Diagram



PS-01: Angleside Reservoir PS Control Improvements Location Map

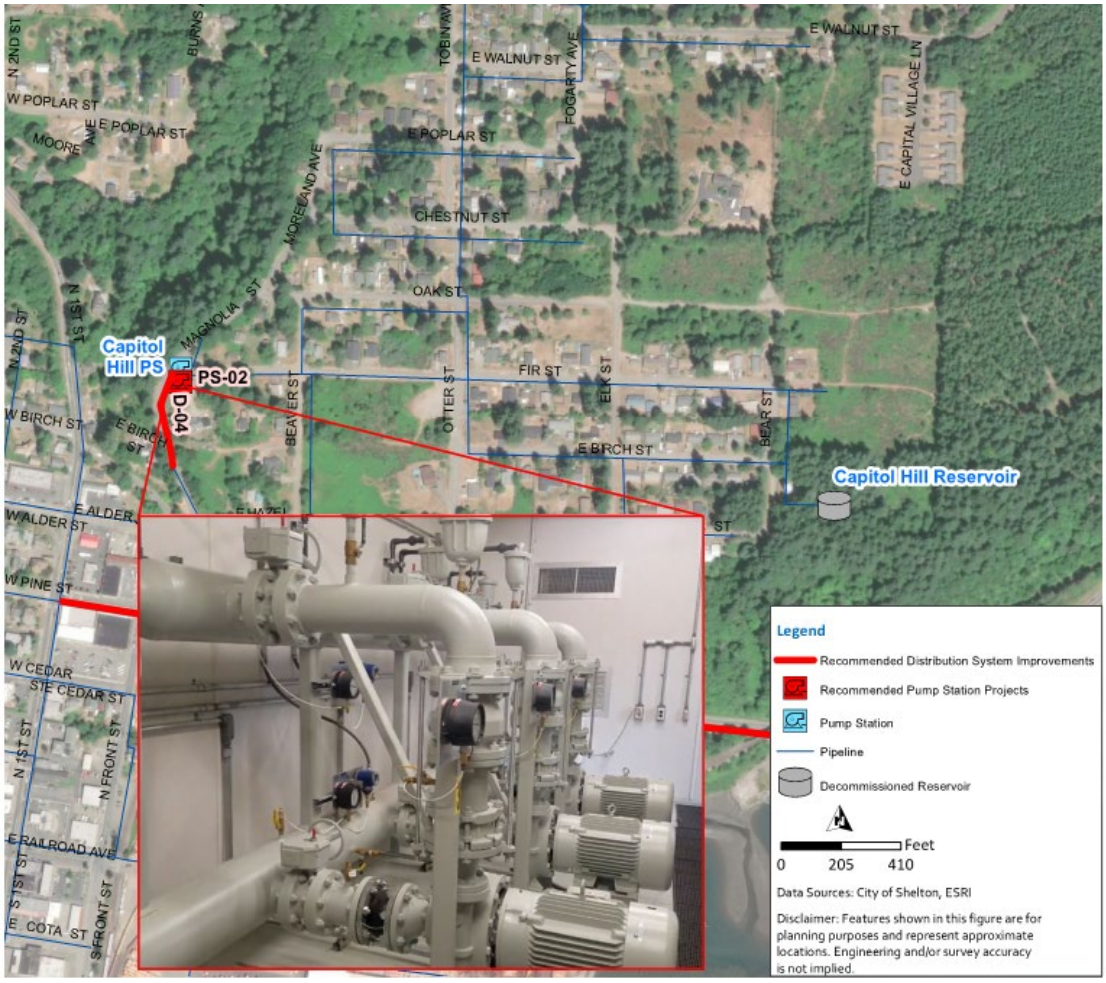
PS-01: Cost Summary

	Phase 1 Total Cost	Phase 2				
		Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$100,000	$450,000	$135,000	$135,000	$45,000	$765,000

PS-02 Capitol Hill Pressure Improvements

The existing Capitol Hill BPS and Capitol Hill Reservoir are not able to provide pressures of at least 30 psi to all customers during peak hour demand scenarios. To increase the peak hour demand pressures and provide pump station redundancy, it is recommended that the Capitol Hill PZ be converted to a closed pressure zone. This project recommends decommissioning the existing Capitol Hill Reservoir and constructing a new Capitol Hill BPS to supply customers at a higher hydraulic grade. This will require increasing the BPS capacity to meet peak hour demands and fire flows for approximately 1,750 gpm of firm capacity flow. Approximately 1,000 ft of distribution mains may also need to be upsized to support greater pumping rates. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** During peak hour demands, pressures at high elevation locations in the Capitol Hill PZ are below 30 psi. Additionally, the residual pressures during fire flow conditions are below the minimum 20 psi threshold at high elevation locations in the Capitol Hill PZ.
- **Triggers:** There are residual pressures during fire flow scenarios that are below the minimum 20 psi threshold. DOH requires residual pressures of at least 20 psi during fire flow conditions. The DOH Water System Design Manual states that a water system must be able to deliver the peak hourly demand at the required pressure of 30 psi.
- **Timing:** The project is planned to occur in the long-term and will take two years for design and construction.



PS-02: Capitol Hill Pressure Improvements Location Map

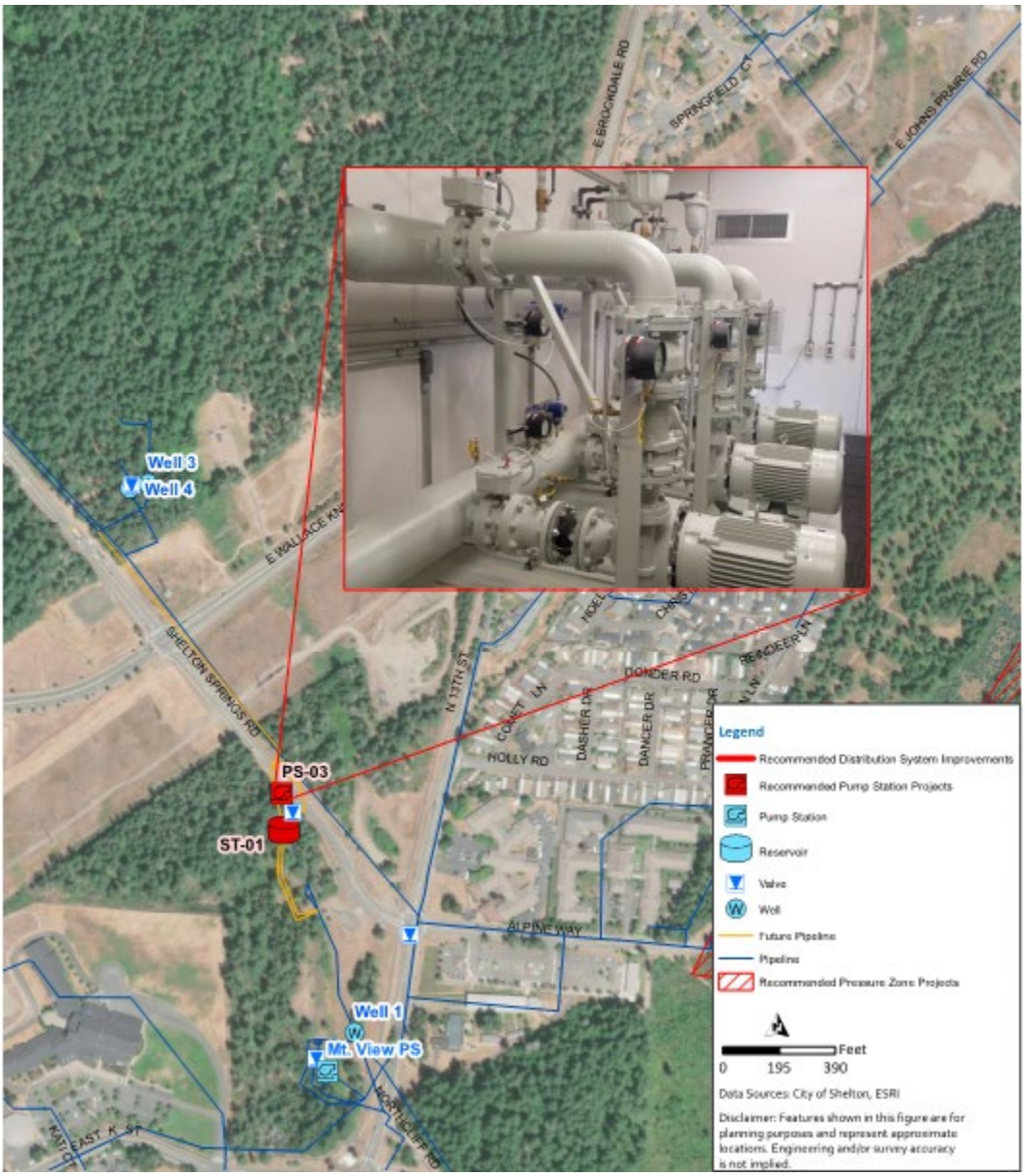
PS-02: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$2,030,000	$609,000	$609,000	$203,000	$3,451,000

PS-03 Upper Mt. View Booster Pump Station

A new Upper Mt. View BPS is needed to meet 2040 maximum day demands in the Upper Mt. View PZ. Additionally, it will provide supply/pumping redundancy to the Upper Mt. View PS if Well 3 is offline. It is recommended that the BPS is co-located with the New Mt. View Ground Reservoir (CIP Project ST-01). This BPS will be sized to supply 1,500 gpm to the Mt. View and Upper Mt. View pressure zones, except for the Dayton-Airport Road Commercial Industrial Center (DARCI) that requires additional infrastructure. The following is a summary of deficiencies, triggers, timing, and related projects:

- **Deficiencies addressed:** The existing supplies cannot meet the maximum day demands in the 2040 planning year in the Upper Mt. View PZ, as shown in the system analysis.
- **Triggers:** The project is recommended to address the supply deficit in the Upper Mt. View PZ in the long-term. The new Upper Mt. View BPS may be developed earlier to address the supply/pumping redundancy in the Upper Mt. View PZ.
- **Timing:** The project is planned to occur in the long-term and will take two years for design and construction.
- **Related Projects:** The Upper Mt. View BPS is anticipated to be co-located with the New Mt. View Ground Storage Reservoir (ST-01).



PS-03: Upper Mt. View Booster Pump Station Location Map

PS-03: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$185,000	$555,000	$555,000	$185,000	$3,145,000

DISTRIBUTION PROJECTS

D-01 W Railroad Ave Pipe Upsize

Project D-01 consists of upsizing approximately 1,700 feet of 8-inch pipe to 12-inch pipe for fire flow deficiencies on W Railroad Ave. This street has a dead-end pipe with a fire flow requirement of 1,500 gpm. The City provided the cost for this project. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** The residual pressures during fire flow conditions are below the minimum threshold of 20 psi at locations on W Railroad Ave.
- **Triggers:** The fire flow deficiency is due to 1,500 gpm fire flow demand (commercial land use fire flow demand) on long, 8-inch dead end pipe. DOH requires a residual pressure of at least 20 psi during fire flow conditions.
- **Timing:** This project is planned for the year 2022.

D-01: W Railroad Ave Pipe Upsize Location Map

D-01: Cost Summary

	Subtotal	Total Cost
Project Cost	$980,000	$980,000

D-02 E Pine St Pipe Upsize

Project D-02 consists of upsizing approximately 3,200 ft of 6-inch pipe to 12-inch pipe for fire flow deficiencies on E Pine St. This is a dead end pipe with fire flow requirement of 1,500 gpm. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** The residual pressures during fire flow conditions are below the minimum threshold of 20 psi at locations on E Pine St.
- **Triggers:** The fire flow deficiency is due to 1,500 gpm fire flow demand (commercial land use fire flow demand) on long, 6-inch dead end pipe. DOH requires a residual pressure of at least 20 psi during fire flow conditions.
- **Timing:** The timing of this project is based on development on E Pine Ave.
- **Cost Summary**: This project is developer-funded so costs are not included in the City's CIP Program.

D-02: E Pine St Pipe Upsize Location Map

D-03 Alleghany St Pipe Upsize

Project D-03 consists of upsizing approximately 230 feet of 6-inch pipe to 8-inch pipe for fire flow deficiencies on Alleghany St. This is a dead end pipe with fire flow requirement of 1,500 gpm. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** The residual pressures during fire flow scenarios are below the minimum threshold of 20 psi at locations on Alleghany St.
- **Triggers:** The fire flow deficiency is due to 1,500 gpm fire flow demand (commercial land use fire flow demand) on long, 6-inch dead end pipe. DOH requires a residual pressure of at least 20 psi during fire flow conditions.
- **Timing:** The timing of this project is based on development on Alleghany St.
- **Cost Summary**: This project is developer-funded so costs are not included in the City's CIP Program.

D-03: Alleghany St Pipe Upsize Location Map

D-04 Capitol Hill Hydrant Lateral Relocation

Project D-04 consists of relocating the hydrant from intake of Capitol Hill BPS to outlet of Capitol Hill BPS to address fire flow deficiency in the High School PZ. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** The residual pressures during fire flow scenarios are below the minimum threshold of 20 psi at a hydrant near the Capitol Hill BPS.
- **Triggers:** Fire flow deficiency due to fire flow demand at hydrant with high elevation in lower PZ (High School PZ).
- **Timing:** This project is planned to occur in the long-term and take one year for design and construction. DOH requires a residual pressure of at least 20 psi during fire flow conditions.
- **Related Projects:** This project is not needed if the Capitol Hill BPS Project (PS-02) is completed.

D-04: Capitol Hill Hydrant Lateral Relocation Location Map

D-04: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$54,000	$16,200	$16,200	$5,400	$91,800

D-05 S 16th St Pipe Project

Project D-05 consists of upsizing 4-inch and 6-inch pipe to 8-inch pipe along S 16th St from Turner Ave north to end of street, and installing a new 8-inch pipe on S 16th St between Turner Ave and May Ave. This project is required to address fire flow deficiencies in the Angleside PZ. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** The residual pressures during fire flow scenarios are below the minimum threshold of 20 psi at locations on S 16th St.
- **Triggers:** The fire flow deficiency is due to high elevation and small diameter pipe (4-inch, 6-inch) in Angleside PZ. DOH requires a residual pressure of at least 20 psi during fire flow conditions.
- **Timing:** This project is planned to occur in the long-term and take one year for design and construction.

D-05: S 16th St Pipe Project Location Map

D-05: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$144,000	$43,200	$43,200	$14,400	$244,800

GENERAL PROJECTS

G-01 Hydrant Improvements

The City has an ongoing hydrant improvement program performed in-house by water operators. The program repairs and replaces hydrants on an as needed basis. In addition, the program will be expanded to address hydrant improvements in areas with low system pressure. To improve these hydrants, water operators will work with the Fire Department to respond to fire flows in these areas, keeping in mind that reservoir levels will be lower in a fire flow condition than normal conditions. The program involves painting, moving, and hooding/removing fire hydrants as agreed with Fire Department. These are intended to be interim measures until CIP projects increase system pressures. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** Hydrants in need of repair or replacement. Fire department response in areas with low pressures.
- **Triggers:** Identification of maintenance or pressure issues from the Water System Plan or field activities.
- **Timing:** This project is planned to being in the 2022 and take two years to complete.

G-01: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Project Cost	$250,000	$75,000	$75,000	$25,000	$425,000

G-02 Repair and Replacement (R&R)

This project is an annual repair and replacement (R&R) program for pipes and above ground assets (pumps, valves, etc.). This project provides an annual budget to replace pipes as they reach the end of their useful life or as required for maintenance issues. The project also provides an annual budget to repair and/or replace pumps, valves, etc., as needed based on condition and maintenance issues. The following is a summary of deficiencies, triggers, and timing:

- **Deficiencies addressed:** The deficiencies addressed with this project are pipes and other assets in need of R&R.
- **Triggers:** City fund for annual R&R of pipes and above ground assets.
- **Timing:** The project timing is assumed to be an annual cost.

G-02: Cost Summary

	Subtotal	Construction (30%)	Engineering/Legal/ Design (30%)	Admin (10%)	Total Cost
Annual Project Cost	$2,000,000	$600,000	$600,000	$200,000	$3,400,000

G-03 Water System Plan Update

Complete an update of the water system plan per DOH requirements every 10 years. The following is a summary of the triggers and timing:

- **Triggers:** DOH requires an update to the water system plan be completed every 10 years.
- **Timing:** This project assumes two water system plans will be completed in the next 20 years.

G-03: Cost Summary

	Subtotal	Construction (30%)	Admin (10%)	Total Cost
Project Cost	$400,000	$120,000	$40,000	$560,000

G-04 Water Meter AMI Upgrade

This project consists of upgrading existing meters with automated meter reading, generally referred to as advanced metering infrastructure (AMI). AMI transmits water usage over radio or similar technology on regular basis (typically daily) to the City, rather than traditional monthly or bi-monthly in-person meter reading. This allows improved efficiency of billing operations, more accurate meter reads, daily water consumption information for operations, and improved leak detection. The City provided the cost for this project. The following is a summary of deficiencies and timing:

- **Deficiencies addressed:** The City's water meters are aging and will require replacement.
- **Timing:** This project is anticipated to be occur in the short-term and will implemented in 2021.

G-04: Cost Summary

	Subtotal	Total Cost
Project Cost	$850,000	$850,000

G-05 Maintenance Facility Expansion

The City Maintenance Division has outgrown the existing 2-acre Parks and Public Works Maintenance Yard on W. Pine Street, and expansion of the existing pipe is not possible. The 10-year project is to relocate the Public Works Maintenance Division to a larger site that can be expanded over time to meet the needs of the City for the next 75+ years. The City provided the costs for this project. The following is a summary of triggers and timing:

- **Triggers:** This project has already been identified by the City.
- **Timing:** The project is anticipated begin in 2021 and be completed in 2023.

G-05: Cost Summary

	Subtotal	Total Cost
Project Cost	$584,890	$584,890

G-06 AWIA Risk and Resiliency Assessment

In October of 2018 the Federal Government signed into law the Environmental Protection Agency (EPA) American's Water Infrastructure Act (AWIA). AWIA Section 2013 required community drinking water systems serving more than 3,300 people to develop or update risk assessment and emergency response plans (ERPs). The law specifies components the risk assessment and ERPs must address, and established deadlines by which water systems must certify to EPA completion of the risk assessment and ERP. For populations served between 3,301 and 49,999 people, the Risk and Resilience Assessment is due June 30, 2021 and the associated Emergency Response Plan is due on December 31, 2021. The City provided the cost for this project. The following is a summary of triggers, timing, and related projects:

- **Triggers:** Compliance with AWIA.
- **Timing:** Must be completed by June 20, 2021.
- **Related Projects:** G-07 AWIA Required Water Emergency Response Plan.

G-06: Cost Summary

	Subtotal	Total Cost
Project Cost	$60,000	$60,000

G-07 AWIA Required Water Emergency Response Plan

In October of 2018 the Federal Government signed into law the Environmental Protection Agency (EPA) American's Water Infrastructure Act (AWIA). AWIA Section 2013 required community drinking water systems serving more than 3,300 people to develop or update risk assessment and emergency response plans (ERPs). The law specifies components the risk assessment and ERPs must address, and established deadlines by which water systems must certify to EPA completion of the risk assessment and ERP. For populations served between 3,301 and 49,999 people, the Risk and Resilience Assessment is due June 30, 2021 and the associated Emergency Response Plan is due on December 31, 2021. The City provided the cost for this project. The following is a summary of triggers, timing, and related projects:

- **Triggers:** Compliance with AWIA.
- **Timing:** Must be completed by December 31, 2021.
- **Related Projects:** G-06 AWIA Risk and Resiliency Assessment.

G-07: Cost Summary

	Subtotal	Total Cost
Project Cost	$60,000	$60,000

G-08 Rate Study

The City's water rates need to be analyzed to determine what rates should be set to and to address affordability by customer class. The study will review the City's current rate structure, financial information, and planned improvements. An analysis of the current rate structure will be performed, and the rates may be adjusted as needed. This project includes the rate study and general facility charges study. The City provided the cost for this project. The following is a summary of triggers, and timing for the project:

- **Triggers:** Water rates need to be evaluated.
- **Timing:** The project is planned to occur in 2021.

G-08: Cost Summary

	Subtotal	Total Cost
Project Cost	$20,000	$20,000

Appendix 10A

FINANCIAL POLICIES

Title 15
WATER

Chapters:

Chapter 15.04
DEFINITIONS

Sections:

15.04.010 Interpretation of definitions.
For the purpose of this title, the following words or phrases have the meaning set forth herein, unless the context clearly requires otherwise. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.020 Airgap.
“Airgap” means an unobstructed vertical distance of at least twice the inside diameter of a supply line, but not less than one inch, through the free atmosphere between a supply line outlet and the overflow rim of a receiving vessel. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.030 Backflow.
“Backflow” means the flow of water or other liquids, mixtures, or other substances into the distribution pipes of a potable supply of water from any source other than its intended source. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.040 Backflow prevention device.
“Backflow prevention device” means a device, assembly or means to prevent backflow into the potable water system, either by back siphonage or back pressure. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.050 Back pressure.
“Back pressure” means the backflow of used, contaminated, or polluted water from a plumbing fixture or vessel into a water supply pipe due to pressure created by booster pumps, boilers, pressure vessels, or elevated plumbing that exceeds the main pressure of the water supply pipe. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.060 Back siphonage.
"Back siphonage" means the backflow of used, contaminated, or polluted water from a plumbing fixture or vessel into a water supply pipe due to a negative pressure in such pipe. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.070 City.
"City" means the city of Shelton. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.080 City manager.
"City manager" means the city manager of the city of Shelton. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.090 Commercial structure.
"Commercial structure" means any building or structure required to be connected to water service that is used for a commercial or industrial purpose, as defined in Chapter 20.26, 20.28, and 20.30, or for the provision of any service, such as hotels, motels, and hospitals. Commercial structures include multifamily complexes larger than a duplex, even if the individual dwelling units are under separate ownership. (Ord. 1729-0608 § 6, 2008: Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.100 Council.
"Council" means the city council of the city of Shelton. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.110 Connection charges.
"Connection charges" means the charges imposed by the city to recover the actual costs of installing the service line from the main to the service meter. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.120 Cross-connection.
"Cross-connection" means any physical arrangement whereby the public water supply system is connected, directly or indirectly, with any nonpotable or unapproved water supply system, sewer drain, conduit, pool, storage reservoir, plumbing fixture or other device which contains or may contain contaminated water, liquid, gases, sewage, or other waste of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.130 Customer.
"Customer" means any person or entity that uses any part of the city's water supply system. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.140 Department.
"Department" means the department of public works of the city of Shelton. (Ord. 1611-0104 § 1

(part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.150 Director.
"Director" means the director of the department of public works of the city of Shelton or his/her designee. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.155 Fire line.
"Fire line" means a separate water service line connecting the city water system to a private fire water supply line for a building or building's fire suppression system. (Ord. 1865-0115 § 1, 2015)

15.04.160 Industrial services.
"Industrial services" means water service connections to a business enterprise engaged in the manufacture of products, materials, equipment, machinery and supplies on a substantial or major scale. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.170 Main.
"Main" means water line designed or used to serve more than one premises. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.180 Multiple dwelling units.
"Multiple dwelling units" means duplexes, apartment buildings, condominiums, mobile home parks, trailer courts, and other like structures. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.190 Permanent main.
"Permanent main" means a main of PVC, cast iron, asbestos-cement or other materials approved by the city which are constructed to city standards and approved and accepted for use by the city. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.200 Permit fee.
"Permit fee" means the fee required to cover costs of permit administration and review. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.210 Person.
"Person" means any individual, firm, company, association, organization, society, corporation, or group. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.220 Premises.
"Premises" is defined as a residential dwelling unit, including a single-family home, manufactured home, mobile home, or one of two dwelling units found in a duplex. (Ord. 1729-0608 § 5, 2008: Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.230 Residential service.

"Residential service" means water service connection to a single-family dwelling unit. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.240 Service installation, service connection or connection.
"Service installation," "service connection," or "connection" means piping and fittings from the main to a property owner's side of the water meter assembly. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.250 System.
"System" includes all water source and supply facilities, transmission pipelines, storage facilities, pumping plants, distribution mains and appurtenances. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.260 Temporary main.
"Temporary main" means a main which does not conform to the city standards with respect to size, location, type of material and/or method of installation and is not intended to be permanent. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.270 Treasurer.
"Treasurer" means the director of financial services of the city of Shelton. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.280 User.
"User" means any person or entity that uses any part of the city's water supply system. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.290 User charge.
"User charge" means the periodic charges levied on all users of the public water works, and shall, at a minimum, cover each user's proportionate share of the cost of operations and maintenance of the water system. (Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

15.04.300 Water service area.
"Water service area" means that area consisting of the corporate limits of the city and those areas that have been or may be designated for water service by the city council. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 1 (part), 2004: Ord. 1581-0103 § 1 (part), 2003)

Chapter 15.08
GENERAL PROVISIONS

Sections:

15.08.010 Purpose.

The purpose of this title is to establish fees for service, and general rules and regulations for the service and extension of service from the water system of the city, and to promote the public health, safety, and general welfare of the users of the water system, in accordance with standards established by the city, county, state and federal government. (Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003)

15.08.020 Creation of water utility.

For the purpose of carrying out the provisions of this title, there is created and established a water utility for the city. The city council is authorized to make funds available by appropriation, borrowing, or by other means, in accordance with laws of the state, for the establishment, maintenance, and operation of the water utility. (Ord. 1921-0518 (part), 2018; Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003)

15.08.030 Applicability.

The provisions of this title shall apply to all water services provided by the city, and to all work performed that relates to the city's water system. (Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003)

15.08.040 Inspections.

A. Duly authorized and properly identified city employees shall have the right to access any customer's premises at any reasonable time for the purpose of inspecting the water supply, piping and plumbing; inspecting, testing or repairing city equipment; and for reading water meters.

B. Water service may be refused or discontinued, or a reduced pressure principle backflow assembly may be installed at the owner's expense, whenever the owner of any premises to which water is provided by the city prevents or restrains authorized city personnel from making necessary inspections. (Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003)

15.08.050 Water service required.

A. Definitions.

1. An "exempt well" is one that is exempt from the permitting requirements of the State Department of Ecology pursuant to RCW 90.44.050.

2. "Timely and reasonable water service" means that the city can immediately supply enough water to meet the estimated demand of a property applying for a new water connection, once a connection has been made from the property to the city's water system. The existence of a water main within three hundred feet of the property shall constitute dispositive evidence that the city can provide timely and reasonable service, unless unique topographic features make installation of water service cost prohibitive. However, the fact that no water main lies within three hundred feet shall not be dispositive as to whether the city can provide timely and reasonable service, because applicants for water service may reasonably be required to install water facilities, including water mains, at their own expense and collect reimbursements through latecomer agreements pursuant to Chapter 35.91 RCW.

B. Subject to subsection D of this section, the owners of each lot or parcel of real property within the city's water service area shall, in conjunction with an application for a building permit, apply for connection to be made at their own expense between the city's water system and each premises, building or structure requiring a building permit. A building permit application shall not be deemed complete, and a building permit shall not be issued, until the complete application for a water connection has been accepted by the city and determined to conform to all application requirements.

C. No person or corporation shall, after the effective date of the ordinance codified in this chapter, drill, install, or cause to be drilled or installed an exempt well within the city unless the hearing examiner finds that connection to the city water system is not required pursuant to subsection H of this section. Such action shall be grounds for an immediate stop work order. Any violation of this section or of the stop work order shall subject the offender to civil and criminal penalties pursuant to Sections 15.32.050 and 15.32.060.

D. This chapter is not intended to restrict the right of a property owner to continue use of an existing exempt well, if the exempt well was supplying water to that property as of April 1, 2008.

E. Exempt wells shall be decommissioned according to the regulations promulgated by the

Washington State Department of Ecology within ten days of the property owner making a connection to the city water system. The connection to the city's water system shall be made in accordance with all lawful requirements and at the property owner's sole expense.

F. No service connection shall be allowed between the city's water system and any lot or parcel of real property supplied by an existing exempt well unless all cross-connection controls are in place according to Section 15.08.080 of the Shelton Municipal Code.

G. Outside City Limits. Owners of parcels or lots outside city limits may request utility extension according to Chapter 17.10 of the Shelton Municipal Code.

H. Appeals. Pursuant to Chapter 2.36, an applicant may appeal to the hearing examiner any requirement that he or she connect to the water system by completing in full the notice of appeal form supplied by the public works department, supplying a copy of the same to the city clerk's office, and paying all applicable appeal fees. The public works department shall be responsible for the appeal process. Such appeals shall be filed no later than fifteen calendar days following the applicant's filing of the application for a building permit. The hearing examiner shall hold a public hearing and issue a written decision pursuant to Chapter 2.36. The hearing examiner may find that an applicant is not required to connect to the water system only if he or she finds that either: (1) an existing exempt well was supplying water to the property as of April 1, 2008; or (2) the city cannot provide timely and reasonable water service to the premises, building or structure for which a building permit is required. (Ord. 1712-1207 § 1 (part), 2008)

15.08.060 Hydrants—Authorized use.

It is unlawful for any person, other than authorized fire and public works personnel of the city, to operate fire hydrants and hose outlets, unless proper arrangements have been made for payment for such use and permission has been granted by the city. (Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003. Formerly 15.08.050)

15.08.070 Emergency interruption of service—Interruption in service.

A. In case of emergency, or whenever the public health, safety, or the equitable distribution of water so demands, the city may alter, reduce or limit the time for, or temporarily discontinue any customer's use of water. Water service may be temporarily interrupted for purposes of making repairs, extending service, or performing other necessary work.

B. Before altering, reducing, limiting or interrupting the use of water, the city will notify, insofar as is practicable, all water customers affected.

C. The city will not be responsible for any damage resulting from the interruption, alteration or failure of the water supply service. (Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003. Formerly 15.08.060)

15.08.080 Cross-connection.

A. The standards for control or elimination of cross-connections shall be in accordance with the Washington Administrative Code (WAC 246-290-490) as now or hereafter amended. The director of public works may establish administrative policies and procedures as necessary to implement the provisions of this section and amend as necessary to comply with state statutes.

B. Any such cross-connection now existing or hereafter installed is declared a nuisance and shall be abated immediately. Water service will be discontinued to any premises for failure to comply with the provisions of this section.

C. Furnishing water service is contingent upon the customer providing cross-connection control approved by the city for protecting the city water supply from backflow. (Ord. 1788-0811, 2011: Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003. Formerly 15.08.070)

15.08.090 City not liable for damages.

A. The city shall not be liable for damages, nor will allowances be made for loss of production, sales or service, in case the city's source of water supply or means of distribution fails or is curtailed, suspended, interrupted or interfered with, or for any cause unless the city shall do, cause to be done or permit to be done any act, matter or thing prohibited, forbidden or declared to be unlawful, or shall omit to do any act, matter or thing required to be done by any law of this state. Any such pressure variation, failure, curtailment, suspension, interruption or interference shall not be held to constitute a breach of contract on the part of the city, or in any way affect any liability for payment for water made available on or before the date of such occurrence.

B. The city shall not be liable for any personal or property damage caused by any failure of the city's water system except where such failure is due to the sole negligence of the city. (Ord. 1712-1207 § 1 (part), 2008: Ord. 1611-0104 § 2 (part), 2004: Ord. 1581-0103 § 2 (part), 2003. Formerly 15.08.080)

Chapter 15.12
CONNECTIONS

Sections:

15.12.010 Connection made by authorized representatives—Connection charges.

A. No person other than authorized personnel of the city, or a properly permitted, licensed and bonded contractor who is approved by the city, shall make any connection to or opening into, use, alter, or disturb any part of the city water system or appurtenance thereto without the express consent of the city, after obtaining any applicable permits the city requires. Any work performed on city water utilities must be witnessed by a representative of the city.

B. All charges incurred in establishing a connection to the city's water system shall be at the sole expense of the applicant.

C. The charges for connection to the city's water system shall be as established by the city council and may be amended by the council from time to time, as necessary.

D. The director of public works may establish administrative policies and procedures as necessary to implement the provisions of this section. (Ord. 1921-0518 (part), 2018; Ord. 1902-0717 § 1, 2017: Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.020 Permit application and issuance.

A. An application for a permit shall be made by the owner of the property on which the work is to be performed or by a properly licensed and bonded contractor representing the owner.

B. The permit application shall include such information as may be required by the city for determination as to whether the proposed work conforms to the requirements of this title and any other applicable city rules, regulations and/or standards.

C. The permit application shall be accompanied by the permit fee established by the city council.

D. If the city determines that the work conforms to all existing ordinances, rules, regulations and standards, and if all fees have been properly paid, the permit for such work may be issued.

E. The application, once approved by the city, shall constitute a binding obligation whereby the owner agrees on behalf of him/herself and all successors in interest to conform to the provisions of this title and any other applicable rules and regulations as now enacted or hereafter amended. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.030 Permit duration.

A permit issued under this title shall be valid for a period of ninety days unless extended or renewed by the city prior to permit expiration. (Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.040 Conditions applicable to all water service connections.

A. All service connections shall be metered.

B. Each building, structure, or premises served must have a separate connection to the main, unless special circumstances exist and the city approves a waiver of the separate connection requirement.

C. Water will not be provided to more than one customer or building, structure or premises through a single service connection, and separate service applications are required for each premises. If the city discovers service is provided to more than one customer, building, structure, or premises through a single service connection, the city shall require the installation of a new service.

D. When any building, structure, or premises for which service is sought fails to abut a main with sufficient pressure and capacity to provide the required flow at the property line, the application for service shall be rejected.

E. No application for water service will be accepted or approved for locations outside of the city water service area.

F. Water customers are prohibited from furnishing water to anyone beyond the customer building, structure, or premises of record at the city, except that which has been approved by the city, or in the case of emergency. Such emergency service shall not continue for a period of more than thirty days and an application for emergency service shall be made to the city within forty-eight hours of

the onset of the emergency.

G. A request for a change in the size or location of a service connection shall be treated as a request for new service.

H. A change of use of any served building, structure or premises will require a new service connection, unless the existing service is adequate for the changed use, as determined by the city.

I. Each commercial structure shall have no more than one connection to the water system, even if the structure is divided into components or individual dwelling units. (Ord. 1729-0608 § 7, 2008: Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.050 Water service easements—When required.

A. Before water service may be located on property other than that of the water service owner, and before the city issues a permit authorizing the water service, the owner of the water service shall secure a written easement from the owner of the property to be crossed. The easement shall be duly acknowledged and shall grant the right to occupy the property for water service or utility purposes. The easement shall be recorded in the office of the county auditor by the owner of the water service and the recording number shall be provided to the city.

B. Where water service is to be connected and/or located in the city right-of-way, written permission for such connection and/or location must be obtained from the city before a permit authorizing such connection is issued. (Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.060 Conditions applicable to new or modified water service connections.

When buildings are replaced by new buildings, the existing water service connection shall not be used, unless the city determines that such connection is acceptable. The customer shall be required to bear the cost of installing a new water service connection in accordance with the terms of this title when the existing water service is determined by the city not to be acceptable for use. (Ord. 1902-0717 § 2, 2017: Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.070 Ownership of permanent facilities.

A. The ownership of all water mains and service connections in the public right-of-way shall be solely vested in the city, except those mains which are designated as private mains.

B. The ownership and responsibility for the maintenance of individual service pipe extensions from the meter to the premises served shall be that of the owner of the premises served and the city shall not be liable for any part thereof. (Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.080 Owner's service piping specifications.

A. All water service piping from the water meter to the premises shall be sized, installed, properly

permitted, and inspected as required by the city's plumbing code.

B. Valves or customer-owned equipment are not permitted to be installed within the city's water meter box, unless approved by the city.

C. The city may require any customer to install a pressure-reducing valve, backflow prevention device, pressure relief valve or similar device at any location where the city determines the need to protect the city's water system. (Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.090 Plumbing specifications.

A. All persons installing fixtures or appliances to be supplied water from the city water mains shall be subject to the applicable requirements of the city's plumbing code.

B. The city shall have the right to refuse or discontinue water service in any situation where it is discovered that applicable city standards and codes have not been complied with in making any installation.

C. Persons installing, adding, or making repairs to existing plumbing systems shall not use the city's meter valve but, instead, shall call for an activation or deactivation as directed under this title. (Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.100 Lawn sprinkler specifications.

A. A lawn sprinkler system connected to any city water connection shall be sized, installed, properly permitted, and inspected as required by the city's plumbing code.

B. Water service may be refused for existing lawn sprinkler systems that are not installed in accordance with the city's plumbing code and for systems that may present a danger to the operation of the city's water supply system.

C. All lawn sprinkler connections shall comply with applicable state and local cross-connection control rules and regulations. (Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

15.12.110 Fire protection service.

A. A water service connection to be used solely for fire protection purposes may be installed to service any premises subject to the provisions of this title.

B. Fire protection systems shall be installed in accordance with regulations established by the city including all city building, fire and related codes.

C. Plans of the proposed fire protection system shall be submitted and approved as required by the city prior to construction.

D. Fire protection systems shall be maintained by the customer in a manner approved by the city. Delinquency in payment of expense for fire protection services or failure of the customer to follow

the regulations set forth by the city shall be sufficient cause for the city to file a lien on the property and/or discontinue all water service to the property. (Ord. 1611-0104 § 3 (part), 2004: Ord. 1581-0103 § 3 (part), 2003)

Chapter 15.16
WATER SERVICE ACTIVATION AND DEACTIVATION

Sections:

15.16.010 Unauthorized activation or deactivation.

A. It is unlawful for any person, except an authorized city employee, to activate or deactivate the water supply to any premises by using the city's shutoff valve.

B. Upon discovery that an illegal activation or deactivation has occurred, the city may disconnect the water service to the responsible customer's premises until all costs including any damage costs have been paid to the city by the responsible customer. (Ord. 1611-0104 § 4 (part), 2004: Ord. 1581-0103 § 4 (part), 2003)

15.16.020 Activation or deactivation during city business hours.

Whenever a request is made of the city for an activation or deactivation or temporary disconnect of water service which necessitates immediate action during city business hours, a charge will be assessed by the city for such service and will be placed on the customer's account. The charge for such activation or deactivation will be established by the city council. (Ord. 1924-0618 § 1, 2018: Ord. 1611-0104 § 4 (part), 2004: Ord. 1581-0103 § 4 (part), 2003)

15.16.030 Activation or deactivation after city business hours.

Whenever a request is made of the city for an activation or deactivation or temporary disconnect of water service which necessitates immediate action after city business hours, a charge will be assessed by the city for such service and will be placed on the customer's account. The charge for such activation or deactivation will be established by the city council. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 4 (part), 2004: Ord. 1581-0103 § 4 (part), 2003)

15.16.040 Activation, deactivation—Liability disclaimer.

The city shall not be liable for any damage to persons or property resulting from any activation or deactivation of water service including, but not limited to, situations where the water service is left on between a change of customer occupying the premises, when such activity is at the request of the customer or the service is disconnected for nonpayment or lack of a water service contract with the city. (Ord. 1611-0104 § 4 (part), 2004: Ord. 1581-0103 § 4 (part), 2003)

15.16.050 Disconnection of service—Condemned buildings.

Whenever a premises supplied by city water has been condemned by the proper authorities, and notice of such condemnation has been forwarded to the city, the city shall disconnect the water service to such premises. Water service shall not be restored to the premises until the owner or his/her agent has secured a release from the proper authorities stating that such building is no longer considered condemned. (Ord. 1611-0104 § 4 (part), 2004: Ord. 1581-0103 § 4 (part), 2003)

Chapter 15.20
WATER METERS

Sections:

15.20.010 Meter ownership and installation.

All meters installed on water service connections by the city shall be and remain the property of the city and shall be removed only by authorized city personnel. (Ord. 1611-0104 § 5 (part), 2004: Ord. 1581-0103 § 5 (part), 2003)

15.20.020 Meter exchange and reinstallation.

A. Whenever the owner of any premises desires to change the size of a meter, an application shall be made to the city and, upon approval, the exchange will be made at the expense of the owner.

B. The city will notify the owner or occupant of the serviced premises whenever a meter is overloaded and demand exceeds its rated capacity to the extent that the meter may become damaged. After evaluating the premises requirements, the city shall advise the owner or occupant of what size meter is necessary to give proper service without damage to the meter. At no charge, the city shall provide an estimate of costs to install a larger meter. If the owner or occupant does not make the required deposit for installation of the larger meter within thirty days after the date of notice, then the city may choose to either install the proper size meter and charge the total cost to the owner's account or discontinue service. (Ord. 1611-0104 § 5 (part), 2004: Ord. 1581-0103 § 5 (part), 2003)

15.20.030 Meter maintenance and repair.

A. The city will maintain and repair all water service meters and will periodically replace meters when a meter is rendered unserviceable due to ordinary use.

B. When replacement or repairs to any meter are necessary because of the willful act, neglect or carelessness of the owner or occupant of the premises served, all expenses for such replacement shall be borne by the owner or occupant of such premises. Failure to pay any of the expenses incurred shall result in disconnection of water service to the premises until such expenses are paid. (Ord. 1611-0104 § 5 (part), 2004: Ord. 1581-0103 § 5 (part), 2003)

15.20.040 Customer water meter leak and repair.

If the customer discovers and repairs a leak in a timely manner to any plumbing on his/her premises, the customer may, upon submission of proper documentation to the city of such repairs, request a credit for up to four months of excess consumption. A determination of the applicable credit amount is at the sole discretion of the city. (Ord. 1611-0104 § 5 (part), 2004: Ord. 1581-0103 § 5 (part), 2003)

15.20.050 Meter tests and bill adjustments.

A. Upon request from the customer, based upon a complaint that the bill for any period has been excessive, the city shall have the meter re-read.

B. If the customer wishes the meter to be tested for accuracy, the customer shall provide a written request for such test along with a fifty dollar deposit to the city. The customer may include in the request that he/she would like to be present when the meter is tested. In the event the test discloses an error of more than three percent in favor of the city, the deposit shall be refunded to the customer and the city will credit the customer's account for the excess overage for up to four months. The city will promptly install a correct registering meter at that location. When the test discloses either no error or an error of three percent or less, the amount of deposit will be retained by the city to cover part of the cost of such test and all charges shall remain as billed. (Ord. 1611-0104 § 5 (part), 2004: Ord. 1581-0103 § 5 (part), 2003)

Chapter 15.24
WATER MAINS AND MAIN EXTENSIONS

Sections:

15.24.010 When required.

A. A main extension shall be required whenever the property to be served fails to abut a water main, or the existing main is inadequate to provide the necessary water pressure or flow characteristics.

B. All main extensions shall extend to and across the full width of the property served with water, unless otherwise approved by the city. Corner lots shall extend to the middle of the intersection. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.020 Application.

A. The person desiring a main extension shall apply to the city requesting permission to extend the city's water system.

B. The city will review the application and, if the requested extension is determined to be a proper extension of the water system, will provide the petitioner with the design requirements for the extension.

C. If the requested main extension is determined to be an improper extension of the water system, the application will be denied. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.030 Extensions—Preparation of plans and specifications.

Upon receipt of the design requirements from the city, the petitioner shall prepare plans and specifications for the extension. All design and construction plans and specifications shall be in accordance with American Public Works Association standards adopted by the city. The completed plans and specifications must bear a licensed professional engineer's seal and endorsement valid in the state of Washington, and shall be submitted to the city for review and approval. The petitioner will be responsible for the cost of plan review by the city, as established by the city council. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.040 Inspection fees.

The petitioner shall be responsible for payment of inspection fees for the main extension, as established by the city council. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.050 Acceptance of main extension.

A. The city reserves the right to reject any installation not inspected and approved by the city.

B. Upon satisfactory completion of all required tests and acceptance of the main extension, the city shall cause the extension to be connected to the city system. All costs incurred in such connection(s), including overhead and administrative charges, shall be the responsibility of the petitioner.

C. No main extension shall be put into service, other than for test purposes by duly authorized personnel, until the main extension has been accepted by the city and all fees and charges have been paid. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.060 Extension—Construction drawings.

A. Upon completion of a main extension, the petitioner shall provide the city a reproducible mylar drawing that accurately indicates the main extension and appurtenances "as-built" in plan and profile.

B. No main extension will be accepted until satisfactory "as-built" drawings are provided. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.070 Main extensions deeded to the city.

The permit holder shall provide the city with a deed of conveyance and bill of sale for all main extensions as a condition to the city's acceptance of the main extensions. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.080 Construction of main extensions.

A. Main extensions must be performed by a contractor properly licensed and bonded in the state of Washington, through a local improvement district procedure, or as otherwise approved by the city.

B. Anyone performing main extensions must be pre-approved by the city.

C. Any main extensions performed by the city shall be at the sole expense of the person requesting construction of the main.

D. All main extensions must be on the city's frontage of the applicant's property, other public right-of-way, or other city-approved easement. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.090 Oversizing mains.

The city may require that any water main be oversized if the city determines that oversizing will be in the best interest of the city's water system, and the larger size is reflected in the city's water comprehensive plan. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.100 Temporary mains.

No temporary main shall be permitted to be installed as a part of the city's water system unless such main is approved and authorized by the city. (Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.110 Latecomer agreement.

Any person wishing to extend the city's water facilities shall enter into a utility extension agreement with the city. The city reserves the right to refuse proposed extensions on the grounds that they are not feasible, practical, economically prudent, or environmentally appropriate. Any extensions to the water facilities shall be dedicated to the city. Persons who extend the city's water facilities may request a latecomer agreement consistent with Chapter 17.14. (Ord. 1856-0814 § 2, 2014: Ord. 1611-0104 § 6 (part), 2004: Ord. 1581-0103 § 6 (part), 2003)

15.24.120 City contribution to developer-initiated public projects.

Projects proposed by private developers that provide benefit to the existing water system may be evaluated by the city council at a developer's request to determine whether it is in the best interest of the public for the city to contribute funds or resources to the project. The council will base their decision on guidelines outlined and established in a written policy. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 6 (part), 2004)

15.24.130 Water line extensions outside city limits.

No person shall extend water lines outside city limits except according to Chapter 17.10 of this code. (Ord. 1690-0107 § 3, 2007)

Chapter 15.28
WATER SERVICE—RATES AND CHARGES

Sections:

15.28.010 Monthly water rates.

The following rates shall be charged by the city for furnishing water service. (Ord. 1916-0118 § 1 (part), 2018: Ord. 1685-1106 § 1 (part), 2006: Ord. 1672-0206 § 1 (part), 2006: Ord. 1670-0206 § 1 (part), 2006: Ord. 1611-0104 § 7 (part), 2004: Ord. 1581-0103 § 7 (part), 2003)

15.28.020 Schedule 1: Meter charge.

A. Meter Charge. Each account that is served shall pay a monthly water meter charge in each of the following years as follows:

2018:

					Private fire

Meter Size	Single-family	Multifamily	Commercial	Irrigation	line*
3/4-inch	$11.66	$10.29	$9.93	$30.81	$7.46
1-inch	$15.15	$12.84	$12.27	$47.14	$8.92
1-1/4-inch	$18.82	$15.36	$14.51	$66.72	$10.20
1-1/2-inch	$22.51	$17.89	$16.73	$86.27	$11.48
2-inch	$33.68	$26.30	$24.46	$135.75	$16.47
2-1/2-inch	N/A	N/A	N/A	N/A	$29.92
3-inch	$82.96	$68.17	$64.50	$287.30	$45.66
4-inch	$115.38	$92.27	$86.52	$434.63	$59.70
6-inch	$200.38	$154.17	$142.68	$838.67	$94.53
8-inch	$300.87	$226.96	$208.58	$1,322.21	$135.21
10-inch	$452.58	$346.34	$319.90	$1,920.92	$210.76
12-inch	$692.60	$536.68	$497.90	$2,847.12	$332.54

2019:

Meter Size	Single-family	Multifamily	Commercial	Irrigation	Private fire line*
3/4-inch	$12.83	$11.31	$10.93	$33.89	$8.20
1-inch	$16.66	$14.12	$13.49	$51.85	$9.81
1-1/4-inch	$20.70	$16.89	$15.96	$73.39	$11.22
1-1/2-inch	$24.76	$19.67	$18.40	$94.90	$12.63
2-inch	$37.05	$28.93	$26.91	$149.33	$18.11
2-1/2-inch	N/A	N/A	N/A	N/A	$32.91
3-inch	$91.26	$74.98	$70.95	$316.03	$50.23
4-inch	$126.92	$101.49	$95.17	$478.10	$65.67
6-inch	$220.41	$169.58	$156.95	$922.54	$103.99
8-inch	$330.96	$249.66	$229.44	$1,454.43	$148.73
10-inch	$497.84	$380.97	$351.89	$2,113.01	$231.84
12-inch	$761.86	$590.35	$547.69	$3,131.83	$365.80

2020:

					Private fire

Meter Size	Single-family	Multifamily	Commercial	Irrigation	line*
3/4-inch	$14.11	$12.44	$12.02	$37.28	$9.02
1-inch	$18.33	$15.53	$14.84	$57.03	$10.79
1-1/4-inch	$22.77	$18.58	$17.56	$80.73	$12.34
1-1/2-inch	$27.23	$21.64	$20.24	$104.39	$13.90
2-inch	$40.76	$31.82	$29.60	$164.26	$19.93
2-1/2-inch	N/A	N/A	N/A	N/A	$36.20
3-inch	$100.38	$82.48	$78.05	$347.63	$55.25
4-inch	$139.61	$111.64	$104.68	$525.90	$72.23
6-inch	$242.45	$186.54	$172.64	$1,014.79	$114.39
8-inch	$364.06	$274.63	$252.38	$1,599.88	$163.61
10-inch	$547.63	$419.07	$387.08	$2,324.31	$255.02
12-inch	$838.05	$649.38	$602.46	$3,445.01	$402.37

2021:

Meter Size	Single-family	Multifamily	Commercial	Irrigation	Private fire line*
3/4-inch	$15.52	$13.69	$13.22	$41.01	$9.93
1-inch	$20.16	$17.09	$16.32	$62.74	$11.87
1-1/4-inch	$25.05	$20.44	$19.31	$88.80	$13.57
1-1/2-inch	$29.96	$23.81	$22.27	$114.83	$15.29
2-inch	$44.83	$35.01	$32.56	$180.68	$21.92
2-1/2-inch	N/A	N/A	N/A	N/A	$39.82
3-inch	$110.42	$90.73	$85.85	$382.39	$60.77
4-inch	$153.57	$122.81	$115.15	$578.50	$79.46
6-inch	$266.70	$205.19	$189.91	$1,116.27	$125.82
8-inch	$400.46	$302.09	$277.62	$1,759.86	$179.97
10-inch	$602.39	$460.97	$425.79	$2,556.74	$280.52
12-inch	$921.86	$714.32	$662.71	$3,789.52	$442.61

2022:

					Private fire

Meter Size	Single-family	Multifamily	Commercial	Irrigation	line*
3/4-inch	$15.99	$14.10	$13.62	$42.24	$10.22
1-inch	$20.77	$17.60	$16.81	$64.62	$12.23
1-1/4-inch	$25.80	$21.05	$19.89	$91.46	$13.98
1-1/2-inch	$30.85	$24.52	$22.94	$118.27	$15.74
2-inch	$46.18	$36.06	$33.54	$186.11	$22.58
2-1/2-inch	N/A	N/A	N/A	N/A	$41.02
3-inch	$113.74	$93.45	$88.43	$393.87	$62.60
4-inch	$158.18	$126.49	$118.61	$595.85	$81.84
6-inch	$274.70	$211.35	$195.61	$1,149.76	$129.60
8-inch	$412.47	$311.15	$285.95	$1,812.66	$185.37
10-inch	$620.46	$474.80	$438.56	$2,633.45	$288.94
12-inch	$949.51	$735.75	$682.59	$3,903.20	$455.89

2023:

Meter Size	Single-family	Multifamily	Commercial	Irrigation	Private fire line*
3/4-inch	$16.46	$14.52	$14.03	$43.51	$10.53
1-inch	$21.39	$18.13	$17.32	$66.56	$12.60
1-1/4-inch	$26.58	$21.68	$20.49	$94.21	$14.40
1-1/2-inch	$31.78	$25.26	$23.63	$121.82	$16.22
2-inch	$47.56	$37.14	$34.54	$191.69	$23.25
2-1/2-inch	N/A	N/A	N/A	N/A	$42.25
3-inch	$117.15	$96.26	$91.08	$405.68	$64.48
4-inch	$162.92	$130.29	$122.16	$613.73	$84.30
6-inch	$282.94	$217.69	$201.47	$1,184.25	$133.49
8-inch	$424.85	$320.48	$294.53	$1,867.04	$190.93
10-inch	$639.07	$489.05	$451.72	$2,712.45	$297.61
12-inch	$978.00	$757.82	$703.07	$4,020.30	$469.57

* Private fire lines will be rated based on the size of the backflow prevention device in lieu of a meter size and fire line charges will be collected only prospectively beginning with the January

2018 billings.

(Ord. 1916-0118 § 1 (part), 2018: Ord. 1910-1217 § 1 (part), 2017: Ord. 1886-0916 § 4 (part), 2016: Ord. 1881-0116 § 4 (part), 2016: Ord. 1857-0814 § 1, 2014: Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.030 Schedule 2: Single-family residential.

A. Consumption Charge for First Six Hundred Cubic Feet. In addition to the meter charge established in Schedule 1 above, each single-family residential unit shall pay the following rate for each cubic foot of water consumed up to the first six hundred cubic feet in a month in each of the following years:

2018	2019	2020	2021	2022	2023
$0.0244	$0.0269	$0.0295	$0.0325	$0.0335	$0.0345

B. Consumption Charge for Amounts in Excess of Six Hundred and up to One Thousand Five Hundred Cubic Feet. In addition to the meter charge established in Schedule 1 above, and the charge established in Schedule 2.A above, each single-family residential unit shall also pay the following rate for each cubic foot consumed in a month in excess of six hundred cubic feet up to one thousand five hundred cubic feet in each of the following years:

2018	2019	2020	2021	2022	2023
$0.0293	$0.0322	$0.0354	$0.0389	$0.0401	$0.0413

C. Consumption Charge for Amounts in Excess of One Thousand Five Hundred Cubic Feet. In addition to the meter charge established in Schedule 1 above, the charge established in Schedule 2.A above, and the charge established in Schedule 2.B above, each single-family residential unit shall also pay the following rate for each cubic foot consumed in a month in excess of one thousand five hundred cubic feet in each of the following years:

2018	2019	2020	2021	2022	2023
$0.0363	$0.0399	$0.0439	$0.0483	$0.0498	$0.0513

D. Senior Citizen and Disability Discounts. Eligible low-income senior citizens and disabled persons living in single-family residences shall receive a discount of seventeen percent of the basic meter charge per month as established in Schedule 1 above. Eligibility shall be determined according to criteria established by the city in the city's sole discretion. (Ord. 1916-0118 § 1 (part), 2018: Ord. 1910-1217 § 1 (part), 2017: Ord. 1886-0916 § 4 (part), 2016: Ord. 1881-0116 § 4 (part), 2016: Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.040 Schedule 3: Multifamily (including duplexes, triplexes, mobile home and trailer parks).

A. Multifamily Consumption Charge. In addition to the charges established in Schedule 1 above, each account shall pay the following rate for each cubic foot consumed in a month in each of the following years:

2018	2019	2020	2021	2022	2023
$0.0284	$0.0312	$0.0343	$0.0378	$0.0389	$0.0401

(Ord. 1916-0118 § 1 (part), 2018: Ord. 1910-1217 § 1 (part), 2017: Ord. 1886-0916 § 4 (part), 2016: Ord. 1884-0116 § 4 (part), 2016: Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.050 Schedule 4: Commercial (including government, industrial, hotel/motel).

A. Commercial Consumption Charge. In addition to the meter charge established in Schedule 1 above, each commercial account shall pay the following amount for each cubic foot consumed in a month in each of the following years:

2018	2019	2020	2021	2022	2023
$0.0279	$0.0307	$0.0338	$0.0372	$0.0383	$0.0395

B. The following provisions shall apply to industrial services, as defined in Section 15.04.160, located in the city or in any outlying area where industrial accounts are served by the city:

1. All costs incurred in connection and installation of meters and service connections will be borne by the industrial services user;

2. Any water supplied to an industrial services user is subject to immediate deactivation when it is determined by the director that an emergency warrants this action;

3. The rate to be charged industrial services shall be computed on a monthly basis consistent with the commercial rates established above. (Ord. 1916-0118 § 1 (part), 2018: Ord. 1910-1217 § 1 (part), 2017: Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.060 Schedule 5: Irrigation.

A. Irrigation Consumption Charge. In addition to the meter charge established in Schedule 1 above, each irrigation account shall pay the following amount for each cubic foot consumed in a month in each of the following years:

2018	2019	2020	2021	2022	2023
$0.0363	$0.0399	$0.0439	$0.0483	$0.0498	$0.0513

(Ord. 1916-0118 § 1 (part), 2018: Ord. 1910-1217 § 1 (part), 2017: Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.065 Schedule 6: Wholesale rate.

A. Wholesale Consumption Rate Charge. In addition to the meter charge established in Schedule 1 above, the Johns Prairie area owned by the Port of Shelton shall pay the following amount for each cubic foot consumed in a month in each of the following years:

2018	2019	2020	2021	2022	2023
$0.0252	$0.0277	$0.0305	$0.0335	$0.0345	$0.0356

(Ord. 1916-0118 § 1 (part), 2018: Ord. 1910-1217 § 1 (part), 2017: Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.070 Schedule 7: Standby fire protection service.

Where fire service is available, no charge will be made for water used in extinguishing fires of incendiary or accidental origin. (Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.085 Schedule 8: Regional plan partners.

Under the provisions of the regional water and wastewater plan, the city provides water services to the Washington State Patrol and the Washington Corrections Center under a separate utility service agreement approved by the council. Rates and charges for water services applicable to the regional plan partners are set forth in this agreement.[1] (Ord. 1921-0518 (part), 2018; Ord. 1852-0614 § 1 (part), 2014: Ord. 1782-0311 § 1 (part), 2011)

15.28.090 Service to construction sites.

Water for construction or other uses may be made available by fire hydrants; provided, that the contractor or person seeking water service first makes application to the city and the city approves such use. The city shall establish reasonable rules and regulations for fire hydrant use including cross-control protection, hours of hydrant use and any other applicable conditions. The applicant shall indicate the estimated usage, hydrant location and duration of usage. The city has the right to deny any application it determines is not in the best interest of the city to approve. The permit and water usage fees shall be established by the city council. The city shall not be liable for any damage resulting from a lack of water to any site, including, but not limited to, situations in which the city has denied access to use or limited use of a fire hydrant. (Ord. 1921-0518 (part), 2018; Ord. 1685-1106 § 1 (part), 2006: Ord. 1672-0206 § 1 (part), 2006: Ord. 1670-0206 § 1 (part), 2006: Ord. 1611-0104 § 7 (part), 2004: Ord. 1581-0103 § 7 (part), 2003)

15.28.100 New accounts.

All new accounts shall be subject to the applicable rules and regulations set forth by the finance department regarding accounts relating to utilities. (Ord. 1685-1106 § 1 (part), 2006: Ord. 1672-0206 § 1 (part), 2006: Ord. 1670-0206 § 1 (part), 2006: Ord. 1611-0104 § 7 (part), 2004: Ord. 1581-0103 § 7 (part), 2003)

15.28.110 Rate computation.

In the computation of charges for water metered to any user, the cubic feet shall be rounded off to the next highest cubic foot. (Ord. 1685-1106 § 1 (part), 2006: Ord. 1672-0206 § 1 (part), 2006: Ord. 1670-0206 § 1 (part), 2006: Ord. 1611-0104 § 7 (part), 2004: Ord. 1581-0103 § 7 (part), 2003)

15.28.120 Appeals.

A. Any customer who believes that an assessed user charge, billing or notice of delinquency is out of compliance with this chapter may appeal such charges, billing or notice of delinquency pursuant to the appeal process defined in this section.

B. Within seven business days of the date printed on the invoice (in the event of appeal of an assessed user charge or billing) or within seven business days of the date printed on the delinquency notice (in the event of an appeal of delinquency status), submit a written appeal to the city's director of financial services by personal delivery or by first class mail to the city's business address. The written appeal shall state (1) what is disputed; (2) specific dollar figures disputed; (3) explanation regarding why the billing and/or determination of delinquency appear inaccurate; and (4) specific details regarding the corrective action requested of the city, including specific dollar figures. If personally delivered, this written appeal must be received by the city within seven business days of the date printed on the subject invoice or notice, with the date printed on the subject invoice or notice not included in the seven-day date calculation. If mailed, the written appeal must be postmarked within seven business days of the date printed on the subject invoice or notice, with the date printed on the subject invoice or notice not included in the seven-day date calculation. The customer shall retain proof of postage and mailing for reference purposes.

C. Water service will be subject to disconnection seven business days following the respective appeal due dates specified in this section, in the event no written appeal is received by the city by the specified due dates.

D. The director of financial services will evaluate a written appeal timely submitted, and will issue written finding(s) and a determination within seven business days of receipt of the appeal, with the date of receipt not included in the date calculation. The written finding(s) and determination will be mailed to the customer's address of record.

E. If the director of financial services determines that the charges are unwarranted, user charges for the subject account shall be corrected and the revised charges shall be retroactively applied for up to four months, with any credit applied to the subject account.

F. Should the customer disagree with the director of financial services' written finding(s) and determination, the customer may appeal and proceed as final hearing to the city manager, or designee, pursuant to the process detailed herein. An appeal to the city manager, or designee, may be submitted in writing by personal delivery or by first class mail to the city's business address. The written appeal shall specifically reference the director of financial services' written finding(s)

and determination, and shall state (1) what specific finding(s) and/or determination of the director of financial services is/are disputed; (2) specific dollar figures disputed; (3) explanation regarding why the director of financial services' written finding(s) and/or determination appear(s) inaccurate; (4) specific details regarding the corrective action requested of the city, including specific dollar figures; and (5) whether an in-person hearing is requested or whether the matter is to be decided solely on the basis of the written submittal.

If personally delivered, the written appeal must be received by the city within seven business days of the date printed on the director of financial services' written finding(s) and determination, with such printed date not included in the seven-day date calculation. If mailed, the written appeal must be postmarked within seven business days of the date on the director of financial services' written finding(s) and determination, with such printed date not included in the seven-day date calculation. The customer shall retain proof of postage and mailing for reference purposes.

The city manager, or designee, will evaluate the appeal and, if an in-person hearing is not requested, will issue written finding(s) and determination within seven business days of the appeal receipt date (in the case of personal delivery), or appeal postmark date (in the case of mailing), with the appeal receipt date or postmark date not included in the date calculation. Such decision shall be final, and the written finding(s) and determination will be mailed to the customer's address of record.

If an in-person hearing is requested, the in-person hearing shall be conducted by the city manager, or designee, within ten business days from the date of personal delivery or mailing postmark of the appeal to the city manager, or designee, with date of delivery or postmark not included in the date calculation. Following the hearing, the city manager, or designee, will issue written finding(s) and determination within seven business days of the hearing date, with date of hearing not included in the date calculation. Such decision shall be final, and the written finding(s) and determination will be mailed to the customer's address of record.

G. A scheduled disconnection for disputed charges shall be placed on hold pending the appeal process; provided, that disconnection may proceed seven business days following the respective appeal due dates specified in this section, in the event no written appeal is received by the city by the specified due dates; or immediately upon the final decision by the city manager, or designee, in the event the final decision upholds the pending disconnection.

H. The customer must pay all undisputed subsequent utility billing charges, penalties and fees in order to keep the appeal process active. Any undisputed charges left unpaid are subject to the disconnection process. (Ord. 1918-0318, 2018)

15.28.130 Billing—Payment—Liens.

Utility billing, delinquencies, collections and liens shall be as provided for under Washington state law and Title 3 of the Shelton Municipal Code addressing utility billings, delinquent charges and

liens. (Ord. 1782-0311 § 1 (part), 2011)

15.28.140 Rates, charges and classifications.

The rates, charges and classifications provided in this title may be amended from time to time at the discretion of the city council and as provided for in the Shelton Municipal Code. Such amended rates, charges or classifications shall apply to and be binding upon users of the city water system whether inside or outside of the city limits. (Ord. 1921-0518 (part), 2018; Ord. 1685-1106 § 1 (part), 2006: Ord. 1672-0206 § 1 (part), 2006: Ord. 1670-0206 § 1 (part), 2006: Ord. 1611-0104 § 7 (part), 2004: Ord. 1581-0103 § 7 (part), 2003)

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[1] Code reviser's note: Section 15.28.080 was repealed by Ordinance No. 1778-0111.

Chapter 15.32
ADMINISTRATION—ENFORCEMENT—VIOLATIONS—REMEDIES/PENALTIES

Sections:

15.32.010 Administration.

Regulation of this title shall be under the supervision of the city manager; provided, however, that the city manager may delegate the duty of enforcing the provisions of this title to the director of public works or other designee. The city manager or designee may make any administrative determinations as are necessary for the proper operation of this title, provided such determinations are not in conflict with the provisions of this title. (Ord. 1921-0518 (part), 2018; Ord. 1611-0104 § 8 (part), 2004: Ord. 1581-0103 § 8 (part), 2003)

15.32.020 Administrative procedures.

The city may give notice to any person violating any provision of this title, stating the nature of the violation and giving a reasonable time for satisfactory correction. The offender shall permanently cease all violation and must correct the violation within the time allowed by the city. The administrative procedure for requiring correction shall be at the sole discretion of the city. (Ord. 1611-0104 § 8 (part), 2004: Ord. 1581-0103 § 8 (part), 2003)

15.32.030 Unlawful acts.

A. Any person causing damage to any property belonging to the city shall be liable to the city for any and all damage resulting both directly or indirectly therefrom.

B. It shall be unlawful for any person to willfully disturb, break, deface, damage, or trespass upon any property belonging to or connected with the water system of the city, in any manner whatsoever.

C. It shall be unlawful for any person to store, maintain goods, merchandise, materials or rubbish within a distance of five feet of any part of the city's water system, including a water meter, gate, valve, fire hydrant, or other appurtenance of water service, connection, water main, or fire

protection service.

D. It shall be unlawful for any person to interfere with the access or operation of the city's water system, or to discharge any matter into the city's water system except that which is normally discharged in the course of regular water service use. (Ord. 1611-0104 § 8 (part), 2004: Ord. 1581-0103 § 8 (part), 2003)

15.32.040 Discontinuance of water service.

A. The city may discontinue or refuse water service because of failure to pay for service or failure to comply with state or local law.

B. Service to any premises upon which a private water supply system is used or operated contrary to the provisions of this title may be discontinued or refused. (Ord. 1611-0104 § 8 (part), 2004: Ord. 1581-0103 § 8 (part), 2003)

15.32.050 Criminal penalty.

Any person who violates any provision of this title shall be guilty of a misdemeanor. A conviction of a misdemeanor under this title shall be punishable by a fine of no more than one thousand dollars or by imprisonment in jail for no more than ninety days or both such fine and imprisonment. Each day that a violation exists shall constitute a separate offense. (Ord. 1611-0104 § 8 (part), 2004: Ord. 1581-0103 § 8 (part), 2003)

15.32.060 Civil remedy.

In addition to the foregoing criminal penalty, any violation of this title, if deemed a threat to the health and safety of the citizens of Shelton, constitutes a separate civil offense and shall be deemed a nuisance. The city may utilize any civil remedy available under state or local law, including injunctive relief. (Ord. 1611-0104 § 8 (part), 2004: Ord. 1581-0103 § 8 (part), 2003)

15.32.070 Restitution.

Any person found in violation of any provision of this title shall be liable to the city for any direct or indirect expense, loss or damage suffered by the city by reason of such violation. (Ord. 1611-0104 § 8 (part), 2004: Ord. 1581-0103 § 8 (part), 2003)

October 6, 2020

Mayor Dorcy
Deputy Mayor Peterson
Members of the City Council
Shelton Residents

It is my pleasure to present to you the City of Shelton's 2021 Proposed Budget. The proposed budget totals $31.7 million, an increase of $1.3 million or 4.3% from the 2020 adopted budget. The proposed budget includes a General Fund allocation of $12.3 million which is roughly $6,800 or 0.1% less than the adopted 2020 adopted General Fund budget. The proposed budget was built using the Council's Strategic Plan to guide decisions and reflects our shared commitment to providing valuable government services in a cost-effective and efficient manner.

The 2021 budget process was especially difficult. As with previous years, the General Fund started the budget process in a deficit position as expenditures annually increase at a rate that exceeds revenue growth. This, coupled with the unknown impacts to City revenue as a result of the COVID-19 pandemic, resulted in a necessity of having to make significant assumptions on next year's revenue generation, especially for the General Fund. The three major unknowns the City continues to grapple with are:

- How long would the Stay Safe / Stay Home Order last?
- How deep will the impact to current and future year revenues be?
- How long until full economic recovery?

Beyond these questions, estimating and establishing our 2021 revenues in the COVID-19 environment was further complicated by:

- Sales Tax has a two-month lag, i.e. the May sales tax the City receives is sales tax collected in March by businesses.
- Impact of the $600 weekly unemployment subsidy from the Federal Government, now $300, and further, the impact when the subsidy ceases.
- The lasting impacts of the pandemic on individuals' decision making on when they will feel comfortable to shop at local retail stores, have meals at local restaurants, etc.
- The extent that National monetary and fiscal policy decisions positively affect cash flows.

As a result, the City's General Fund revenue budget for 2021 is slightly lower than 2020 adopted revenues and over $580,000 less than 2019 actual revenues. With this reduction in revenue budget, department requests for expense budget increases for expansion or creation of programs for residents were, for the most part unable to be funded with projected resources. In fact, the General Fund has reduced expenses for 2021 by eliminated five positions funded in 2020. Departments losing a position include the City Manager, Finance, Information Technology, and Police.

INTRODUCTION

The City's highest priority is public safety and significant considerations took place prior to the decision to eliminate a police position. However, with the closure of Shelton schools due to the pandemic, the contract between the City and School District which funded two and a half police School Resource Officer (SRO) positions was not renewed. Even without this revenue source, the City was able to fully fund the other two SRO positions out of on-going revenue. We remain hopeful that once the School District opens, the SRO contract will be renewed and we can once again fund the eliminated position.

Outside of the reduction in positions, the General Fund budget continues to fund existing City services and programs, adjusted for necessary increases for inflation, benefit increases, and contract requirements. No new initiatives or expansion of current programs in the General Fund are funded in 2021.

The City's budget philosophy is to develop realistic revenues for the upcoming year and fit expenses within those revenue estimates. In cases where fund balance is being utilized to balance budgeted expenses, a thoughtful determination was made by comparing the current level of fund balance to the minimum level of fund balance necessary based on cash flows and any contingency requirements for those funds. Furthermore, the use of fund balance is restricted to pay for one-time expenses such as capital, major maintenance projects, or stand-alone contract services and is not used for on-going operations.

The City of Shelton, like most other government entities, is facing a budget sustainability issue where expenses increase each year at a pace that exceeds growth in resources. The 2021 budget, while balanced, doesn't fully address sustainability of the budget and more work must take place in 2021 to create a budget structure that is sustainable long-term.

The budget includes roughly $300,000 for general capital improvements including the City share of $200,000 for the Civic Center Parking Lot project, in which the City received a $285,000 grant from the State through our State Congressional delegates. Other capital projects funded for 2021 include $1.7 million for the Automated Meter Read system, $700,000 for the Public Works Maintenance Facility Expansion project, $590,000 for City's Pavement Preservation Program, nearly $340,000 for new equipment purchases to replace assets past their useful life, and roughly $216,000 for Parks capital projects funded by the Shelton Metropolitan Park District.

The proposed budget is the culmination of an almost year-long collaborative effort between the City Council, City Manager, city staff, and the residents and businesses of Shelton. I would like to extend my thanks to all the City employees for the work that they do each day to make a difference for our City's residents. The City serves a diverse population with a workforce that is committed to meeting the needs of the public.

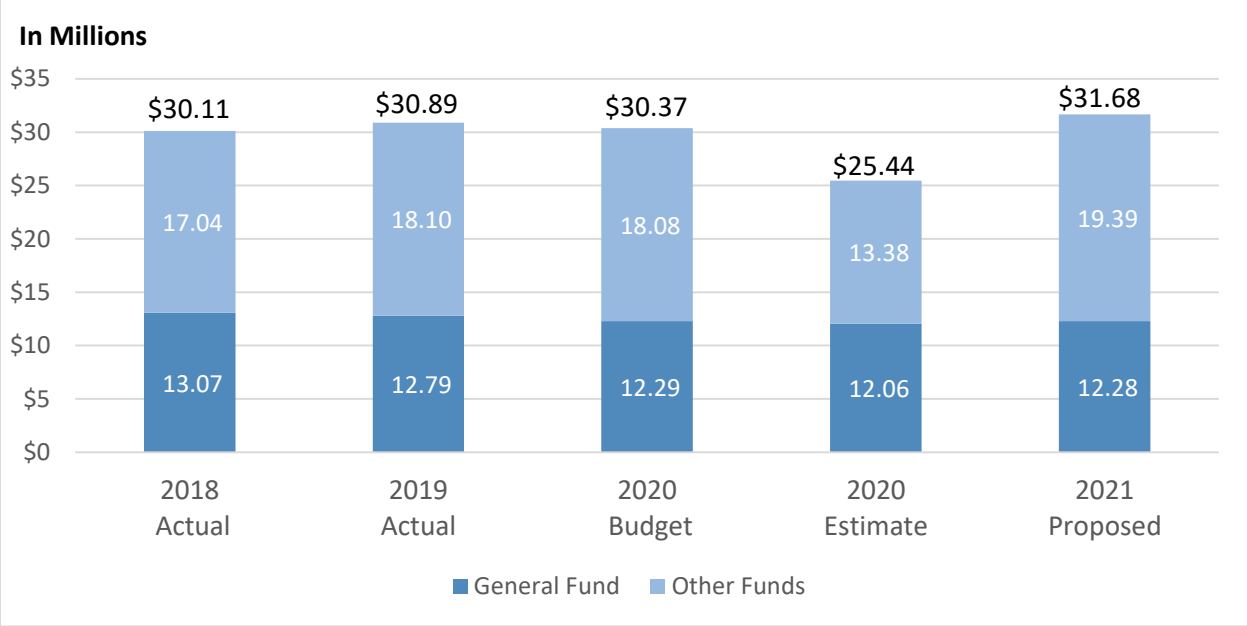
Respectfully,

Jeff Niten
City Manager
City of Shelton, WA

CITY-WIDE EXPENDITURES AND REVENUES

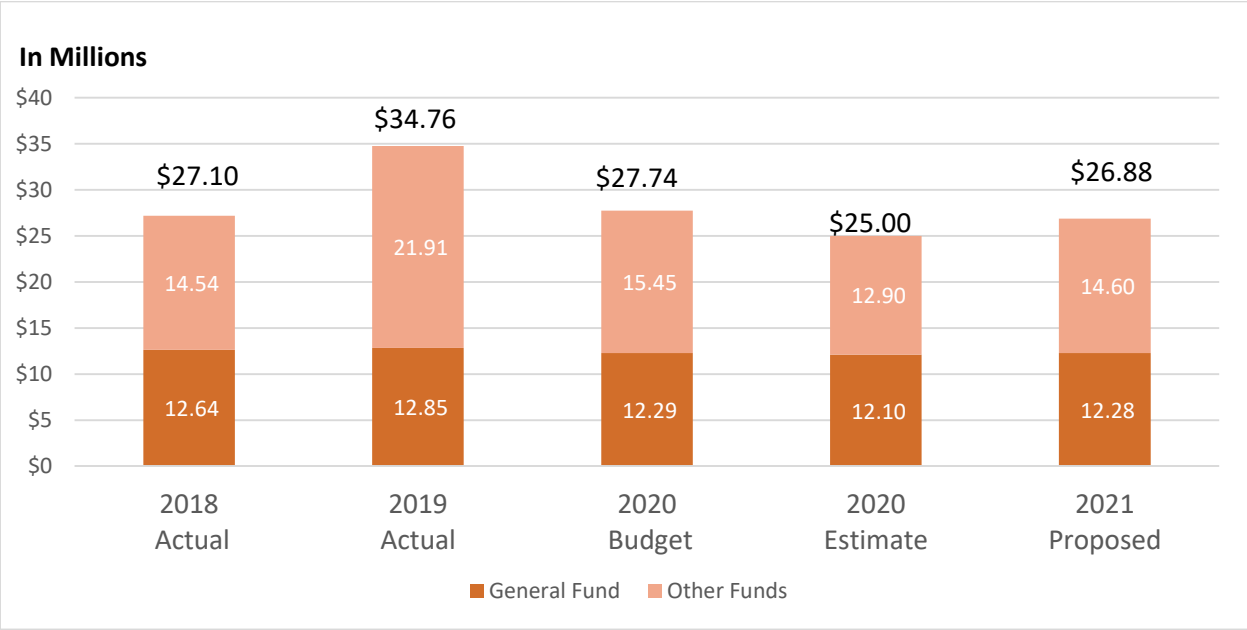
The City-wide Expenditures and City-wide Revenues graphs below provide the City's expenditure and revenue levels since 2018 and include the 2020 budget and 2020 estimates as well as the 2021 proposed budget. The total amounts will vary from year-to-year due to the level of major construction activity, the issuance or refunding of debt, acceptance of grant awards, and the initiation or elimination of major service responsibilities.

City-Wide Expenditures



Fund	2018 Actual	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed
City-wide Expenditures					
General Fund	$ 13,070,098	$ 12,794,935	$ 12,290,690	$ 12,062,198	$ 12,283,920
Street Fund	-	1,173,598	2,280,650	1,609,040	2,069,190
Tourism Fund	33,050	52,675	59,130	68,567	61,880
Capital Resources Fund	-	-	-	-	496,630
Bond Fund	274,868	282,318	184,490	184,467	184,490
Capital Improvement Fund	3,849,038	4,411,586	2,138,630	921,050	1,572,140
Water Fund	2,089,382	2,287,953	3,720,740	2,760,886	3,865,560
Sewer Fund	8,669,260	7,585,993	5,777,330	5,822,025	7,787,220
Solid Waste Fund	296,311	137,092	1,459,020	100,903	781,810
Storm Drainage Fund	1,014,931	1,038,145	1,275,710	940,285	1,338,760
Payroll Benefits Fund	203,450	112,620	219,200	125,600	206,700
Equipment Maint. & Replacement	534,487	929,299	863,720	759,577	929,510
Firefighters Pension Fund	79,886	86,074	98,570	88,248	98,570
Library Endowment Fund	-	-	-	-	-
Total Expenditures	**$ 29,270,717**	**$ 30,892,287**	**$ 30,367,880**	**$ 25,442,845**	**$ 31,676,380**

City-Wide Revenues



Fund	2018 Actual	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed
City-wide Revenue					
General Fund	$ 12,641,582	$ 12,846,171	$ 12,290,690	$ 12,099,150	$ 12,283,920
Street Fund	-	2,528,794	1,476,010	1,401,520	1,436,520
Tourism Fund	44,499	52,687	51,700	34,011	37,700
Capital Resources Fund	-	-	310,600	547,900	140,000
Bond Fund	282,802	285,933	184,490	186,048	184,490
Capital Improvement Fund	3,179,865	4,815,657	2,089,900	1,192,870	1,572,140
Water Fund	2,319,907	2,526,971	2,474,090	2,343,313	2,575,230
Sewer Fund	6,842,425	9,808,908	6,010,930	6,060,927	6,171,890
Solid Waste Fund	73,028	181,296	470,000	10,267	450,000
Storm Drainage Fund	789,207	801,540	1,265,000	866,502	989,000
Payroll Benefits Fund	207,749	125,409	206,700	125,600	206,700
Equipment Maint. & Replacement	655,952	618,872	736,610	486,039	692,000
Firefighters Pension Fund	146,478	164,671	168,970	88,300	138,970
Library Endowment Fund	1,422	3,337	2,700	2,300	2,700
Total Revenues	**$ 27,184,917**	**$ 34,760,244**	**$ 27,738,390**	**$ 25,444,748**	**$ 26,881,260**

The table below breaks out the total fund General Fund expenditures by department. Until 2019, Street functions were accounted for in the General Fund and beginning in 2019 the City Council created the Street Operating Fund where those costs are now accounted. The General Fund breakout by Department is only shown for expenditures as General Fund revenues are currently not accounted for by departments rather, they are accounted for at the higher fund level. General Fund revenues which are reserved for particular activities, like the Criminal Justice Sales Tax, are treated on a first in first out basis and are considered the first monies consumed for those appropriate activities.

Fund	2018 Actual	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed
General Fund Expenditures by Department					
Administrative Services					
Human Resources	$ 128,976	$ 244,553	$ 262,000	$ 267,516	$ 271,530
Information Technology	288,328	234,709	289,130	294,851	245,870
Risk Management	172,462	189,897	219,960	219,840	225,360
City Clerk	112,116	37,837	111,770	67,642	215,480
City Council	282,400	231,757	167,050	148,325	100,630
City Manager					
City Manager	585,398	381,449	628,000	419,201	399,340
Legal	406,611	392,309	445,460	421,048	456,580
Detention & Corrections	421,898	365,356	404,070	370,520	414,170
Community Dev, Parks, Facilities					
Community Development	533,787	523,664	535,520	533,885	558,860
Parks & Recreation	364,054	410,472	557,750	402,590	575,450
Facility Services	510,989	563,586	514,830	536,854	542,600
Civic Center Activities	37,482	47,014	63,760	47,947	68,210
Finance	977,269	933,224	1,068,890	980,965	1,035,070
Fire & Emergency Services	1,337,350	1,447,313	1,498,880	1,512,125	1,501,250
Municipal Court					
Community Restitution	100,502	95,788	116,290	107,665	122,390
Court Services	300,154	366,503	420,350	410,582	446,060
Non-Departmental	1,717,501	2,519,557	1,212,580	1,278,973	1,054,290
Police	2,963,064	3,072,032	3,124,110	3,332,761	3,422,280
Public Works	985,712	737,915	650,290	708,907	628,500
Streets	844,045	-	-	-	-
Grand Total	**$ 13,070,098**	**$ 12,794,935**	**$ 12,290,690**	**$ 12,062,198**	**$ 12,283,920**

More information on budgeted revenues and expenditures is provided further in the Overview and a more detailed breakout is provided for each fund, or in the case of the General fund each Department, in the fund pages that follow.

2021 Proposed Budget by Fund & Ending Balance

Fund Balance

In organizations utilizing a cash based system of accounting, like the City of Shelton, Fund Balance refers to the amount of cash (including investments) resulting between current financial assets and liabilities. Fund balance is an important indicator of a city's financial position and maintaining reserves is a prudent management practice. Adequate fund balances are maintained to allow the city to continue providing services to the community in case of unexpected emergencies, unfunded mandates, and/or economic downturns. Fund balance may also be used to meet seasonal cash flow shortfalls as needed. Further, fund balance levels may increase over a period of years to accumulate cash reserves for significant future capital or major maintenance needs.

The City has revised its Fund Balance policy and until that policy is adopted, the City Council and City Manager have agreed on a set of guidelines for fund balance use. Fund balances shall not normally be applied to recurring annual operating expenditures. Unrestricted balances may,

however, be used to allow time for the city to restructure its operations in a deliberate manner, but such use will only take place in the context of long-term financial planning.

As part of the budget process, the proposed budget was built using the following general outline of fund balance reserve levels for the following funds:

- General Fund and Street Operating Fund will strive to maintain a fund balance equal to 16% of current year budgeted expenditures.
- Water, Sewer, and Storm Drainage funds will strive to maintain a fund balance equal to 20% of current year budgeted expenses.
- Other funds, while not having a desired fund balance level contingent on current year expenditures, are to maintain necessary balances to fulfill their obligations without the fund going cash negative.

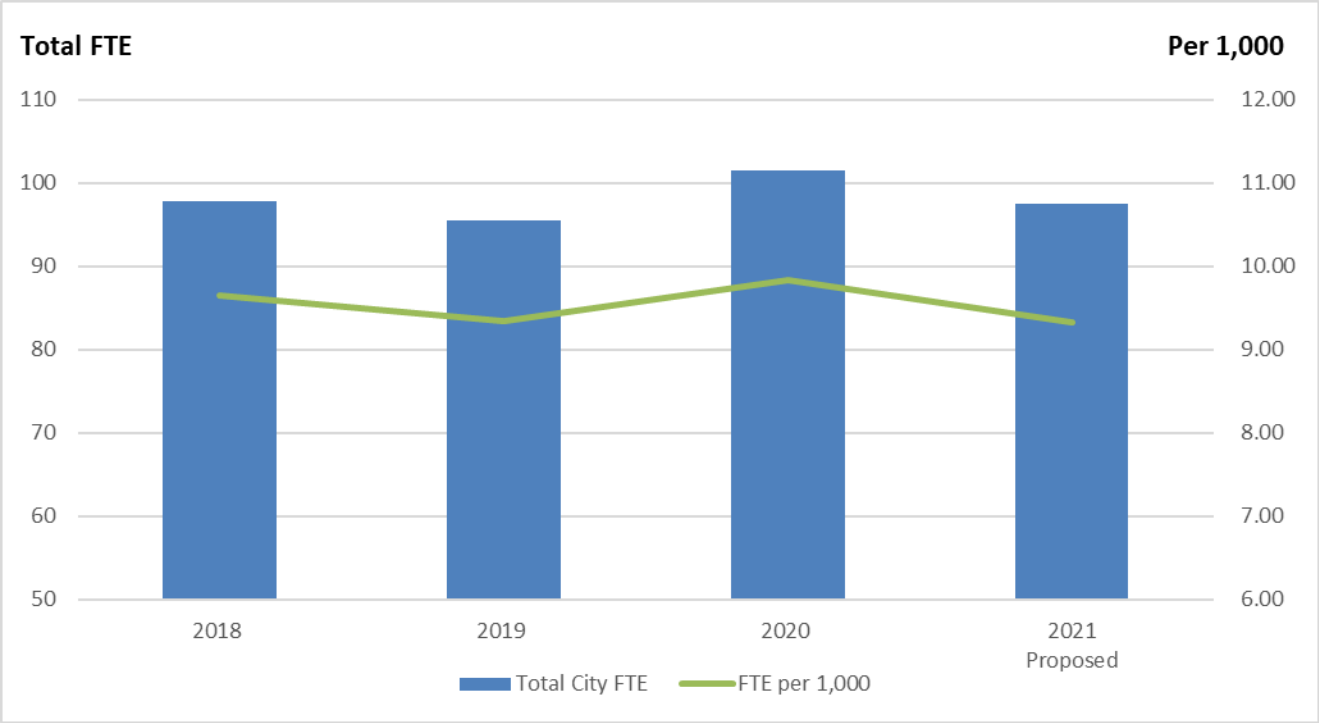
In the General Fund, fund balance levels in excess of the reserves described above may be considered to supplement "pay as you go" capital outlay and other one-time expenditures for any good governmental purpose. Accumulated General Fund balance above the desired reserve level, and not immediately programmed for a capital project, will be transferred and held in the Capital Resources Fund until those monies are budgeted for a specific use.

The chart below shows the 2021 estimated beginning and ending fund balances for all city funds. The 2021 estimated beginning balance is calculated using our June estimates for 2020 activity and the estimated ending fund balance uses 2021 proposed expenses and revenues to calculate the ending balance. The chart also provides the dollar and percent change in assumed fund balance levels for the proposed budget year.

Fund	Estimated Beginning Fund Balance	2021 Proposed Revenue	2021 Proposed Expenditures	Proposed Ending Fund Balance	$ Change	% Change
City-wide Expenditures						
General Fund	$ 3,336,417	$ 12,283,920	$ 12,283,920	$ 3,336,417	$ -	0.0%
Street Fund	1,147,685	1,436,520	2,069,190	515,015	(632,670)	-55.1%
Tourism Fund	83,630	37,700	61,880	59,450	(24,180)	-28.9%
Capital Resources Fund	499,176	140,000	496,630	142,546	(356,630)	-71.4%
Bond Fund	16,971	184,490	184,490	16,971	-	0.0%
Capital Improvement Fund	700,546	1,572,140	1,572,140	700,546	-	0.0%
Water Fund	1,998,234	2,575,230	3,865,560	707,904	(1,290,330)	-64.6%
Sewer Fund	4,263,597	6,171,890	7,787,220	2,648,267	(1,615,330)	-37.9%
Solid Waste Fund	944,666	450,000	781,810	612,856	(331,810)	-35.1%
Storm Drainage Fund	356,074	989,000	1,338,760	6,314	(349,760)	-98.2%
Payroll Benefits Fund	139,892	206,700	206,700	139,892	-	0.0%
Equipment Maint. & Replacement	649,542	692,000	929,510	412,032	(237,510)	-36.6%
Firefighters Pension Fund	610,511	138,970	98,570	650,911	40,400	6.6%
Library Endowment Fund	122,324	2,700	-	125,024	2,700	2.2%
Total Expenditures	**$ 14,869,265**	**$ 26,881,260**	**$ 31,676,380**	**$ 10,074,145**	**$ (4,795,120)**	**-32.2%**

STAFFING

City-wide FTE & FTE per 1,000 Population



	2018	2019	2020	2021 Proposed
Total City FTE	97.80	95.50	101.50	97.50
Est. Population	10,140	10,220	10,320	10,450
FTE per 1,000	9.64	9.34	9.84	9.33

As the population of the City increases the demand for city services has risen correspondingly. The FTE's (Full Time Equivalents) per 1,000 Population chart and graph above reflect the total number of funded FTE as well as the number of FTE per every 1,000 in population. The 2021 estimate is arrived at by using the same percentage growth between 2018 and 2019 and 2019 and 2020, or roughly 1%.

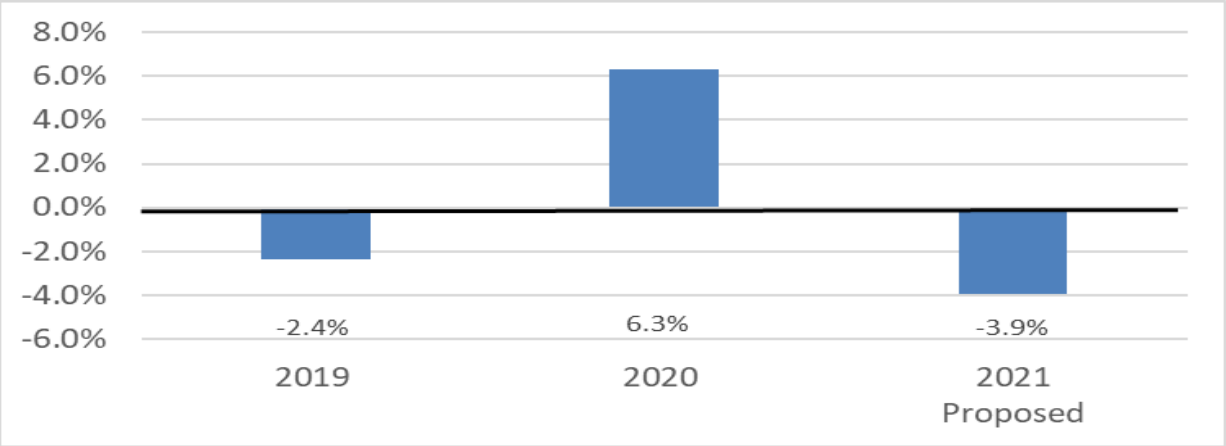
As a result of the COVID-19 pandemic, the City was forced to make some very tough decisions regarding staffing. As such, the 2021 proposed budget includes five (5) position reductions in the General Fund. These five position reductions are offset by an increase of one (1) position in Public Works.

The following Percent Change in Staffing chart demonstrates the percent change in City staffing beginning with the change between 2018 and 2019 staff levels. The decrease between the 2020 budgeted staffing levels and the proposed staffing level for 2021 include:

- Elimination of the Homeless Resource Coordinator position (1FTE) and Economic Development Specialist position (1 FTE) in the City Manager's Office.

- Elimination of the Accounting Assistant position (1FTE) in the Finance Department.
- Elimination of a School Resource Officer position (1FTE) in the Police Department.
- Elimination of an Information Technology Systems Specialist (1FTE) in the Administrative Service Department.
- A new full-time (1FTE) Development Review Technician, $111,170 (includes benefits), funded equally by the Street, Water, Sewer, and Storm funds.

Percent Change in Staffing



The City's highest priority is public safety and significant considerations took place prior to the decision to eliminate a police position. However, with the closure of Shelton schools due to the pandemic, the contract between the City and School District which funded two and a half police School Resource Officer (SRO) positions was not renewed. Even without this revenue source, the City was able to fully fund the other two SRO positions out of on-going revenue. We remain hopeful that once the School District opens, the SRO contract will be renewed and we can once again fund the eliminated position.

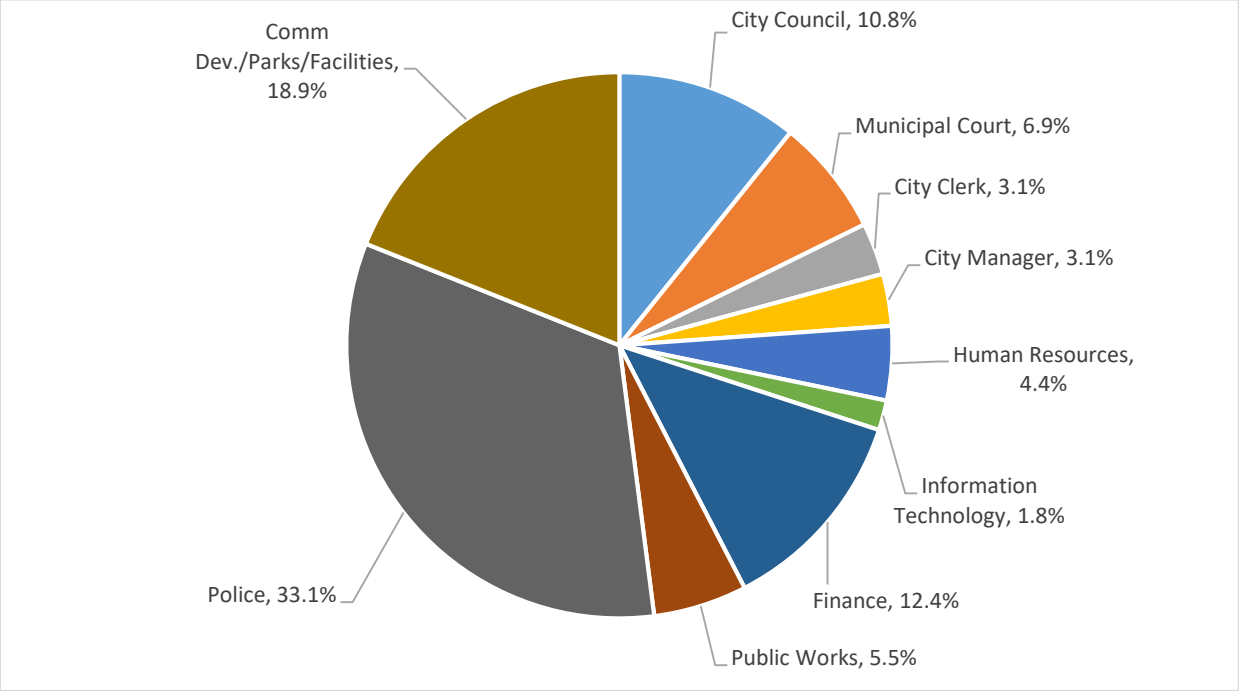
The chart below shows total City-wide FTE budgeted by Fund or in the case of the General Fund, by department. Beginning in 2019 the City began identifying Human Resource and Information Technology staff in their own departments. Those positions were previously included as part of the City Manager staffing levels. In 2021 the staffing, as well as budget activities, of the City Clerk are consolidated into its own General Fund department. The staffing and budget for City Clerk activities were previously accounted for in the City Council, City Manager, and Finance departments.

City-wide FTE by Fund

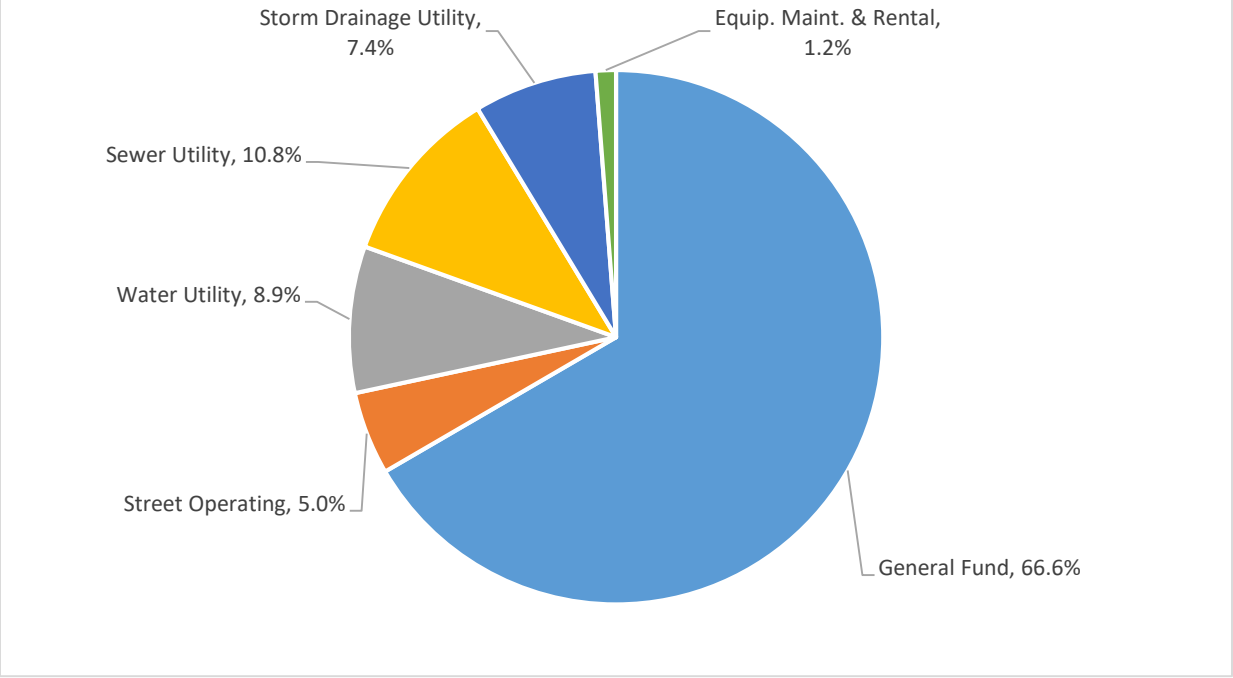
	2018	2019	2020	2021 Proposed
General Fund				
City Council	7.55	7.80	7.80	7.00
Municipal Court	4.50	4.50	4.50	4.50
City Clerk*				2.00
City Manager	8.60	3.40	4.40	2.00
Human Resources**		2.00	3.00	2.85
Information Technology**		2.00	2.00	1.15
Finance	10.65	9.85	9.85	8.05
Public Works	10.00	6.10	4.60	3.60
Police	20.50	21.50	21.50	21.50
Comm Dev./Parks/Facilities	11.82	11.30	12.30	12.30
Total General Fund	**73.62**	**68.45**	**69.95**	**64.95**
Other City Funds				
Street Operating	3.31	3.65	4.65	4.90
Water Utility	8.02	8.40	8.40	8.65
Sewer Utility	8.80	9.30	10.30	10.55
Storm Drainage Utility	3.00	4.50	7.00	7.25
Equip. Maint. & Rental	1.05	1.20	1.20	1.20
Total Other Funds	**24.18**	**27.05**	**31.55**	**32.55**
Grand Total City FTE	**97.80**	**95.50**	**101.50**	**97.50**

The pie charts below detail the percent of FTE in the General Fund and percent of City-wide FTE by Fund for the coming budget year as presented in the City-wide FTE chart above. Central Service functions (City Manager, Human Resources, Information Technology, and Finance) account for nearly 25% of General Fund staffing and about 16.5% of total staffing. Public Safety functions of the Police Department and Municipal Court account for just over 40% of General Fund staffing and nearly 27% of total FTE. In total, the General Fund accounts for roughly 69% of total City staffing. Staffing for the City's Utilities represents just over 27% of total staffing while Street staffing accounts for 5% of total staffing.

General Fund Staffing by Department as a Percent of Total

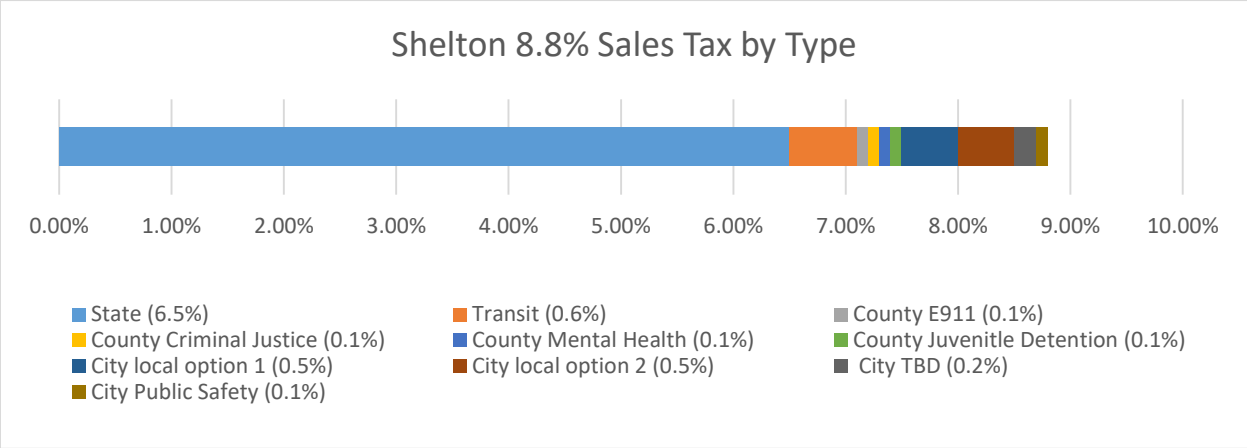


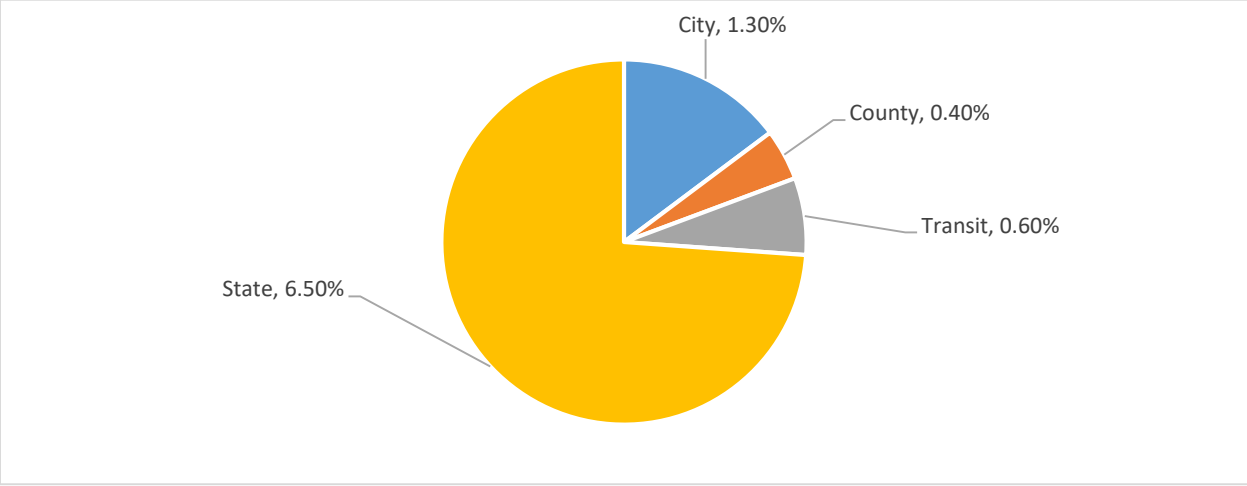
City-wide Staffing by Fund as a Percent of Total



SALES AND USE TAX

Sales tax is the largest revenue source in the General Fund with a proposed revenue in 2021 of $2,871,040 in the General Fund and $582,520 in the Street Fund. Sales tax is collected by the state directly from businesses engaged in retail sales activities. The State distributes those tax collections to the appropriate entities. In 1970, the State legislature granted cities the right to tax retail sales at a rate of 0.5%. At the time, legislature also provided that 15% of the 0.5% tax would be allocated to the County in which the City is located. In 1982, the retail sales tax rate was increased to 1.0% with the same caveat that 15% of the tax be allocated to Counties. Additionally, the legislature included a 1% administrative fee for the State Department of Revenue, the department responsible for the collection and distribution of the tax revenue. This effectively leaves cities with a sales tax revenue of 0.8415% of retail sales. The chart below shows the sales tax allocation for the City of Shelton.





In July 2008, Washington State became a member of the Streamlined Sales and Use Tax Agreement (SSUTA) becoming a member of a cooperative effort of states to simplify and make sales and use tax collection and administration more uniform. Ultimately, the goal of the agreement is to reduce the cost and administrative burdens on retailers that collect the sales tax, particularly for those that operate in multiple states. Becoming a member of the SSUTA

fundamentally changed how sales tax is applied by retailers by changing what tax rate was applied for purchases from origin based to destination based local sales tax system.

This change means that for businesses and consumers if a sale takes place and the customer takes possession of the property or service at the business location the sales tax rate applied is the rate at that location. However, if the customer will take possession of the product or service in a location other than the business location, the sales tax rate applied is the rate where the customer takes possession of the goods or service. For example, if a Shelton resident buys and takes possession of a TV in a store in Olympia, the sales tax rate in Olympia is applied and Olympia receives their share of the tax. If the Shelton resident goes to the same Olympia store and buys the same TV but it is shipped to their address in Shelton, then the Shelton tax rate is applied and Shelton receives their share of the sales tax.

The follow chart shows the sales tax collection since 2018 by year.

Source	2018 Actual	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed
General Fund					
Sales Tax - General	$ 2,349,610	$ 2,940,884	$ 2,495,730	$ 2,495,000	$ 2,501,230
Sales Tax - Public Safety	232,562	291,215	246,400	246,000	246,940
Sales Tax - Criminal Justice	112,171	127,406	118,800	118,800	119,070
Sales Tax - Trans. Bene. Dist	551,166	-	-	-	-
Natural Gas Use Tax	3,783	4,032	3,800	3,800	3,800
Subtotal General Fund	**$ 3,249,291**	**$ 3,363,536**	**$ 2,864,730**	**$ 2,863,600**	**$ 2,871,040**
Other Funds					
Sales Tax - Trans. Bene. Dist	$ -	$ 685,810	$ 582,520	$ 582,520	$ 582,520
Grand Total City-wide	**$ 3,249,291**	**$ 4,049,346**	**$ 3,447,250**	**$ 3,446,120**	**$ 3,453,560**

Public Safety Sales Tax

The voters of the City approved an increase in the City's sales tax rate of 0.1% for the collection of a Public Safety sales tax beginning April 1. 2012. The same revenue sharing requirement as other sales and use tax exists where 15% of the tax collected is allocated to the County and 1% is due to the State as an administrative fee. As provided by law, at least one-third of the revenue must be used solely for carinal justice purposes, fire protection services, or both. While the other two-thirds are unrestricted and available for any good governmental use, the City of Shelton uses the entire revenue collected to fund public safety services.

Criminal Justice Sales Tax

Counties may impose a non-voted 0.1% sales tax for criminal justice purposes. While the tax is imposed by the county, the revenue must be shared with all cities and towns located in that county. The county receives 10% of the revenues and the remaining 90% is split between the county and its cities on a per capita basis. The revenue must be used in assisting the criminal justice system.

The City expends far more than the collection of the Public Safety and Criminal Justice sales taxes for public safety purposes. As a comparison to the Public Safety & Criminal Justice Sales

Tax amount in the chart above, the chart below shows the combined costs for Police, Municipal Court, and Fire services for the same time period.

Activity	2018 Actual	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed
Fire / EMS	$ 1,337,350	$ 1,447,313	$ 1,498,880	$ 1,512,125	$ 1,501,250
Firefighters Pension Fund	146,478	164,671	168,970	88,300	138,970
Municipal Court	400,655	462,291	536,640	518,247	568,450
Police	2,963,064	3,072,032	3,124,110	3,332,761	3,422,280
Total Expense	**$ 4,847,547**	**$ 5,146,307**	**$ 5,328,600**	**$ 5,451,433**	**$ 5,630,950**

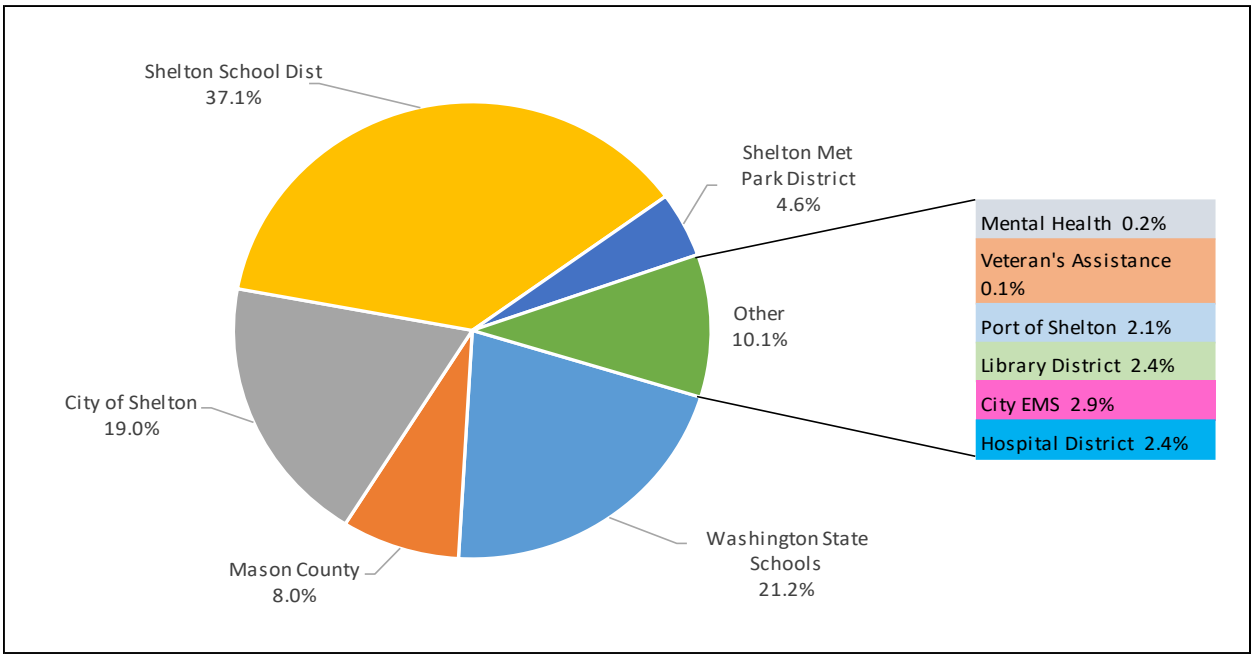
Transportation Benefit District Sales Tax

Beginning April 1, 2016, the City voters established a Transportation Benefit District (TBD) and imposed a 0.2% sales tax rate, as permitted by law. The revenue collected is reserved for transportation improvements including roads, sidewalks, paths, transit service, as well as transportation demand management. Construction, maintenance, and operating costs are eligible uses of this funding source. However, unlike other sales tax options, the TBD sales tax is limited to 10 years, with one additional 10-year period allowed if passed by voters. The TBD sales tax may only exceed 10 years if it has been used for the repayment of debt. TBD sales tax collections are not shared with the County. The City receives all of the sales tax collected less the State's 1% administrative fee. The City's TBD sales tax, beginning in 2019, is accounted for in the Street Fund, and no longer in the General Fund.

PROPERTY TAX AND ASSESSED VALUATION

Property tax is the second largest source of revenue in the General Fund. The Mason County Assessor values and provides information to the City of Shelton on their determination of property values within city limits. The calculation for Property Tax revenue is dependent upon both the assessed valuation of property as provided by the County Assessor and the tax rate. The County Assessor's valuation of property is achieved through physical inspections and, outside of a physical inspection, valuation estimates are built using local area sales data. Property tax collections are budgeted and adopted using preliminary figures from the Mason County Assessor. Final figures from the Mason County Assessor's Office on AV and rates are usually available in December after the Council has adopted the budget.

State law provides that the maximum growth in property tax revenue from existing property is the lessor of one percent (1%) or the percentage increase in the Implicit Price Deflator (IPD), an index used to gauge the extent of price changes or inflation over specific period of time for costs of goods and services. For the 2021 budget year the IPD, as determined by the Federal Department of Commerce, totaled .602% which means that all local governments in Washington State may increase their property taxes the full 1% only after an Ordinance or Resolution of Substantial Need is approved by the City Council. If such an Ordinance or Resolution is not approved by Council, existing property tax collections would be able to increase at the .602% rate plus new construction and other State assessments. The Property Tax figures in the City's Proposed budget assumes that a Substantial Need Ordinance will be approved.



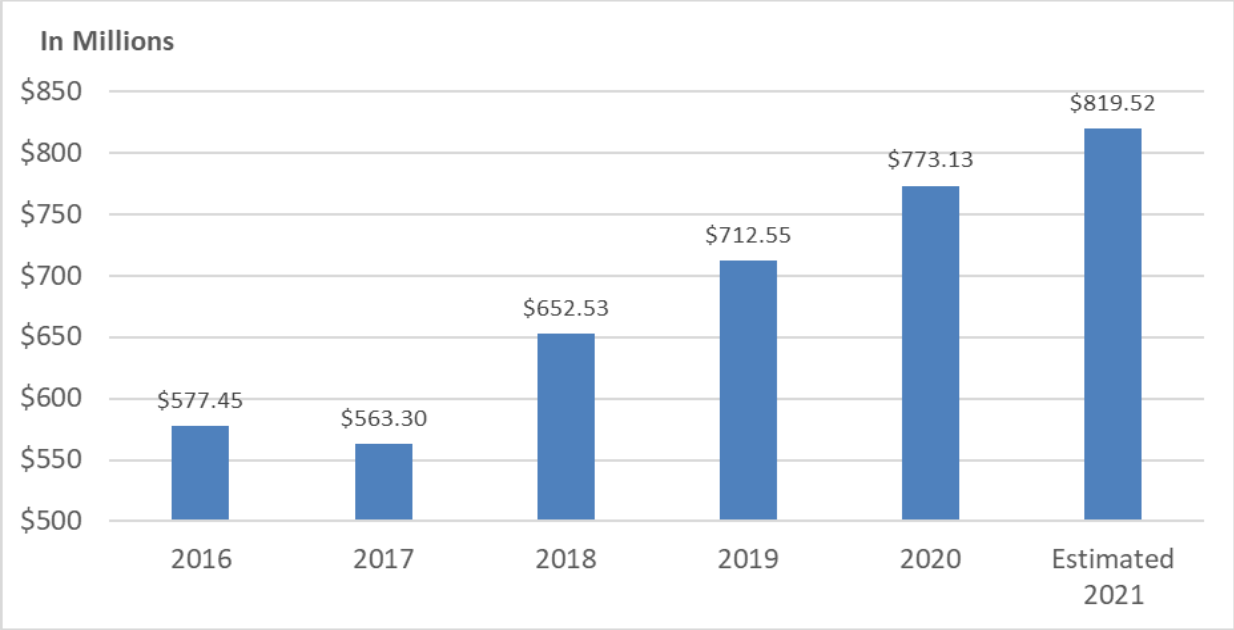
The pie chart above reflects the full allocation of property tax payments. As can be seen, the City of Shelton receives 19% percent of the total tax paid by property owners (regular tax levy at 19% and EMS levy at nearly 3%). At the time of printing the 2021 Proposed Budget the City has not received preliminary assessed valuation from the County Assessor's Office. The estimated 2021 levy rate for every $1,000 of assessed valuation the City receives roughly $2.68. This amount will change depending on the actual assessed value for the City as determined by the County Assessor's Office.

The City's maximum regular property tax levy is $3.375 per $1,000 of assessed valuation. Additionally, since the City has a pre-LEOFF (Law Enforcement Officer and Firefighters) pension fund, the City can levy another $.225 per $1,000 of assessed valuation for a total of $3.60 per $1,000. However, since State Law caps property tax revenue increase at 1% or IPD, whichever is lower, the actual levy rate is much lower than the $3.60 per $1,000 assessed valuation maximum.

Assessed Valuation (AV)

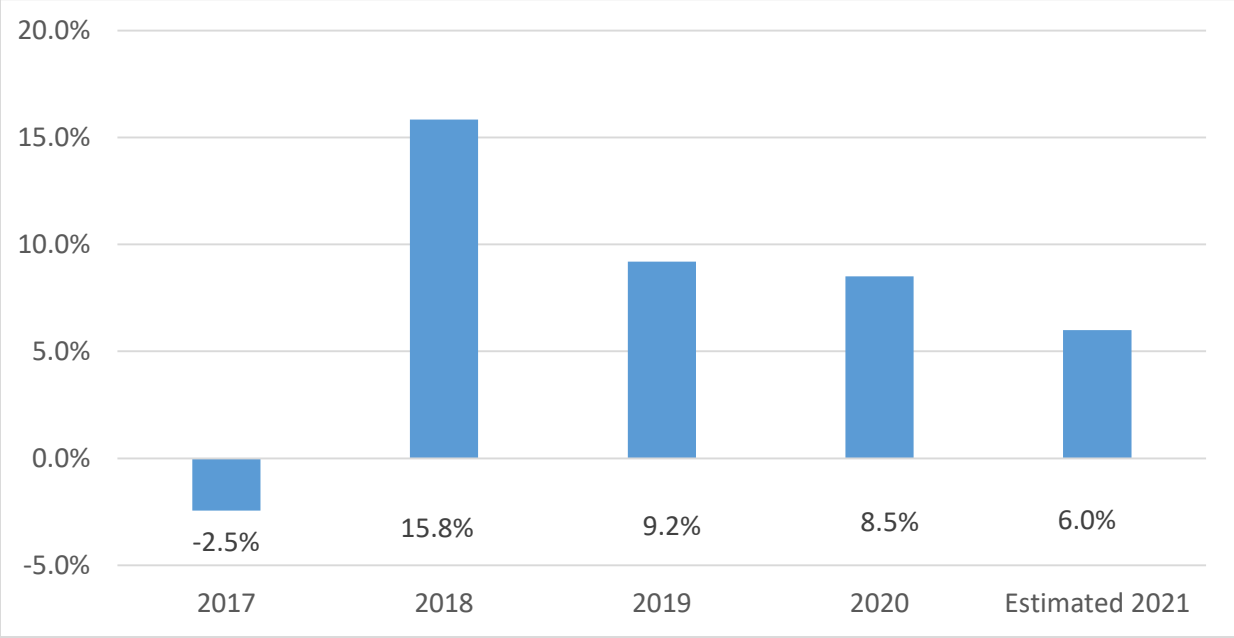
As is shown in the chart below, valuation decreased from 2016 levels in 2017. Since 2017 valuations have increased each year. Currently, the City is estimating an increase of 6% in assessed valuation for 2021. The City of Shelton budget includes property tax revenue based on the City's AV and corresponding rate for the regular levy(s) and the EMS levy. Other property tax collections are dedicated to entities other than the City (School District, Metropolitan Parks District, State of Washington, etc.) and are included in their budgets and financial plans.

Total Assessed Valuation: City of Shelton



The chart below reflects the percentage change in the assessed valuation for the City of Shelton. The City saw a decline in assessed valuation in 2017 as compared to 2016 but since then the assessed valuation has increased each year. The increase between the estimated 2021 valuation ($819,518,400) and the 2020 valuation ($773,130,558) is nearly $46.4 million or 6.0%. The estimated increase in AV since 2016 is roughly $242.1 million or 41.9%.

Percent Change by Year in Assessed Valuation



The property tax revenue included in the proposed budget includes the allowable statutory increase of one percent growth, as approved through a substantial need Ordinance, plus new construction. Due to the limitation on property tax growth, there is an inverse relationship or negative correlation between the AV and the tax rate meaning that when AV increases the property tax rate decreases. The opposite is also true, where AV decreases, as in 2017, the tax rate increases.

	2018 Actual	2019 Actual	2020 Actual	2021 Estimated
Assessed Valuation	652,529,064	712,548,758	773,130,558	819,518,400
City Rate	$ 3.06	$ 2.86	$ 2.75	$ 2.68
EMS Rate	$ 0.48	$ 0.44	$ 0.42	$ 0.41
2020 Estimated taxes owed - City and EMS only				
Estimated Assessed Valuation	819,518,400	819,518,400	819,518,400	819,518,400
Property Valuation at:	150,000	200,000	250,000	300,000
City Regular Levy @ $2.68	$ 401	$ 535	$ 669	$ 803
EMS Levy @ $0.41	$ 62	$ 82	$ 103	$ 123
Estimated Total	**$ 463**	**$ 617**	**$ 771**	**$ 926**

The Property Tax AV & Rates table above presents comparative AV and tax rate information since 2018. The table also provides, for demonstrative purposes, the approximate property tax owed, *for the City regular and EMS levies only*, on hypothetical properties valued at $150,000, $200,000, $250,000, and $300,000 in 2021. The top portion of the table shows the relationship between increasing AV and the corresponding decrease in levy rates over the four-year period.

GENERAL FUND

As the name implies, the General Fund is the fund that receives most of the City's undesignated revenues which are available for any good governmental purpose. This fund finances the majority of the traditional services associated with local government. Due to the flexibility of General Fund resources, much of the budget deliberations center around this fund.

GENERAL FUND REVENUES

General Fund revenues decrease in 2021 to $12,283,920 from the 2020 adopted budget of $12,290,690, a decrease of $6,770 or 0.1%. However, the proposed 2021 budget is $562,251 lower than 2019 actual revenues of $12,846,171 or a decrease of 4.4%.

Source	2018 Actual	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed
Taxes	$ 8,029,664	$ 8,462,779	$ 7,878,350	$ 8,431,200	$ 8,531,110
Charges for Goods/Service	2,678,619	2,881,716	3,393,670	2,713,940	2,818,140
Intergovernmental Revenue	1,017,979	741,394	420,520	426,570	423,520
Fines & Penalties	121,122	121,146	105,300	58,550	102,300
Licenses & Permits	604,883	355,352	319,600	276,740	285,100
Miscellaneous Revenue	186,296	239,596	173,250	192,150	123,750
Other Financing Sources	3,022	44,189	0	0	0
Grand Total	**$ 12,641,582**	**$ 12,846,171**	**$ 12,290,690**	**$ 12,099,150**	**$ 12,283,920**

General Fund revenue projections for 2021 were especially difficult. The unknown impacts to City revenue as a result of the COVID-19 pandemic, resulted in a necessity of having to make significant assumptions on next year's revenue generation, especially for the General Fund. The three major unknowns the City continues to grapple with are:

- How long would the Stay Safe / Stay Home Order last?
- How deep will the impact to current and future year revenues be?
- How long until full economic recovery?

Beyond these questions, estimating and establishing our 2021 revenues in the COVID-19 environment was further complicated by:

- Sales Tax has a two-month lag, i.e. the May sales tax the City receives is sales tax collected in March by businesses.
- Impact of the $600 weekly unemployment subsidy from the Federal Government, now $300, and further, the impact when the subsidy ceases.
- The lasting impacts of the pandemic on individuals' decision making on when they will feel comfortable to shop at local retail stores, have meals at local restaurants, etc.
- The extent that National monetary and fiscal policy decisions positively affect cash flows.

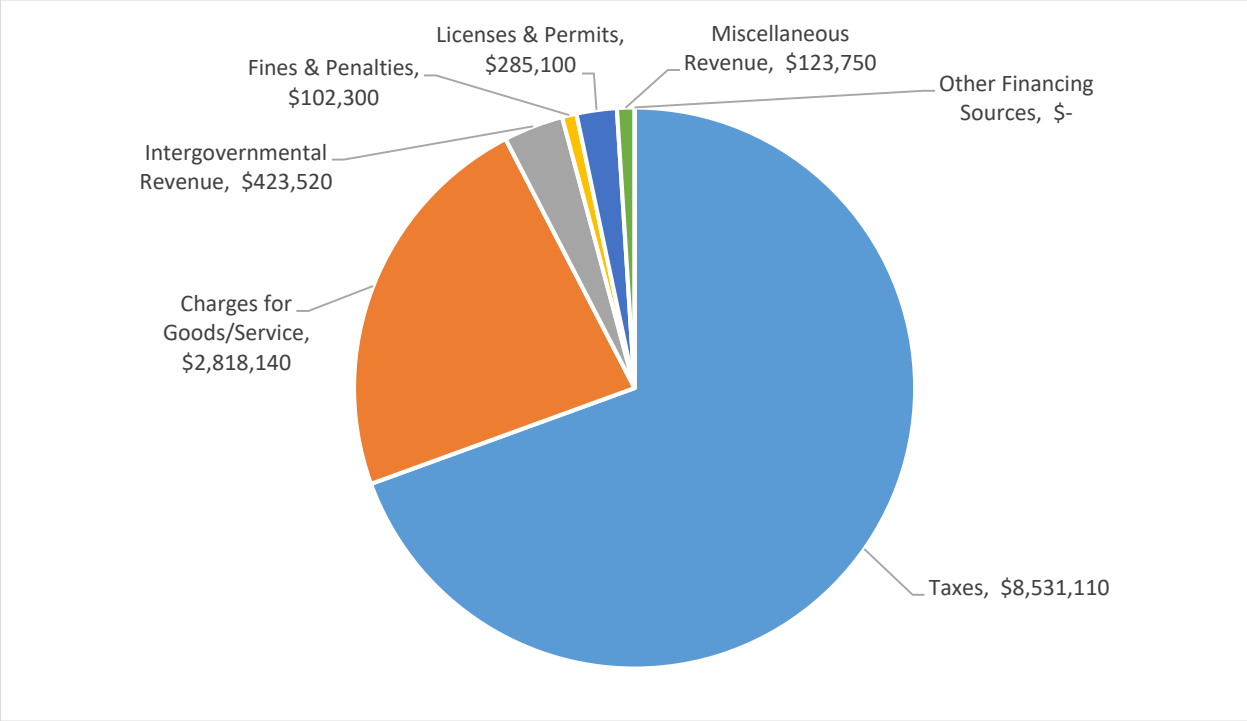
The 2021 high-level assumptions for General Fund revenue include:

- Sales tax revenue will be in-line with 2020 estimated revenue
- Property tax will increase by 1% plus new construction
- Short-term interest rates will remain at their current level or increase only slightly in the next year
- Current percentage growth caps on property tax and utility taxes will remain unchanged
- Other revenues will mostly be in-line with estimated 2020 revenue collections.

2021 major revenue changes from the 2020 budget are:

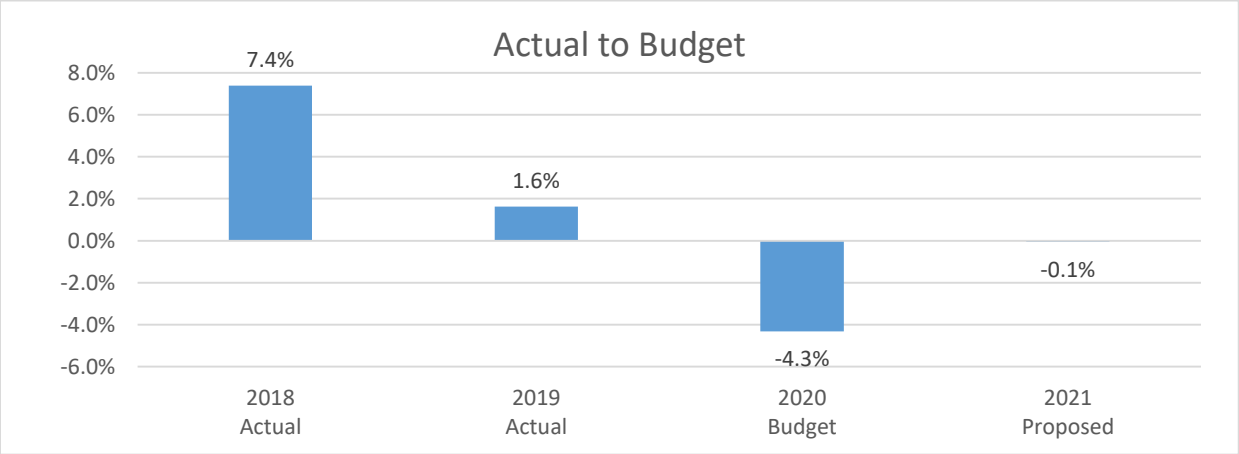
- Elimination of the School Resource Officer contract with the Shelton School District ($288,700)
- Property Tax revenue increase of $91,860 resulting from an increase of the 1% statutory maximum plus new construction
- Solid Waste utility tax revenue increase of $542,640 resulting from the full consumption of a pre-payment in 2017

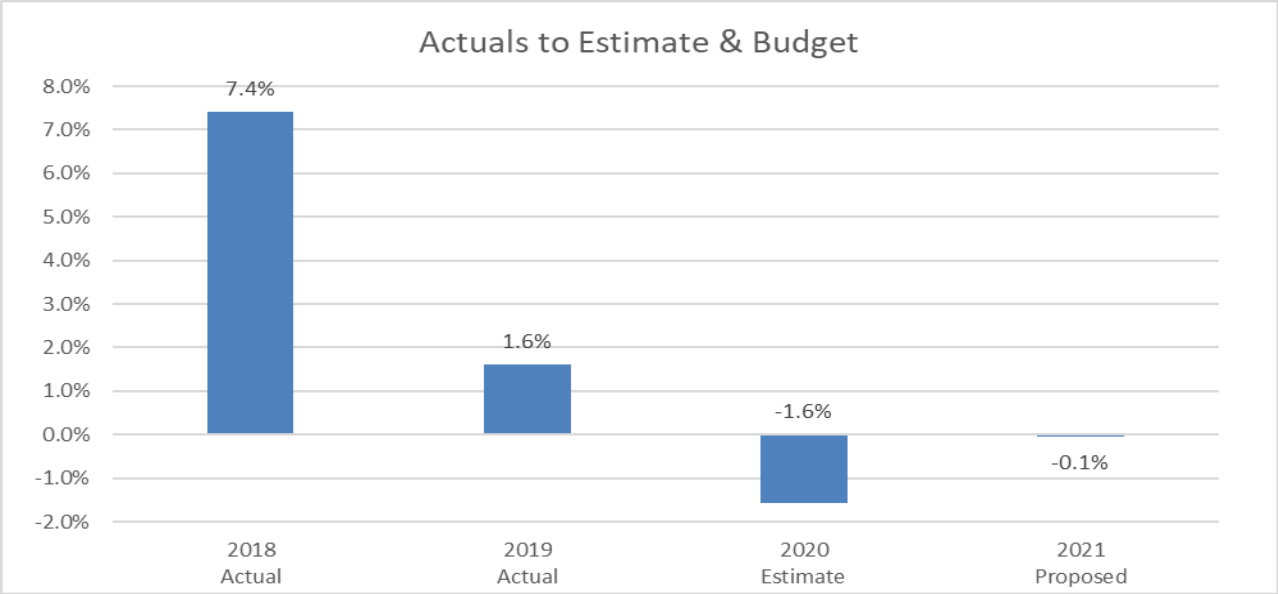
GENERAL FUND 2020 REVENUE SOURCES BY PERCENT OF TOTAL



As is demonstrated in the chart above, just over 69% or $8,531,110 of the City's 2020 General Fund revenues are collected from taxes. The remaining 31% ($3.752.810) comes from all other sources combined.

PERCENT CHANGE IN GENERAL FUND REVENUES





The **Percent Change in General Fund Revenues** charts above compare the year-to-year changes in total General Fund revenue collections over the past three years. This is not a comparison of actual revenue to budgeted revenues per year; the chart compares the total actual revenue collected or budgeted amounts to th1 following year (chart on previous page) and actual collections to the 2020 estimate and 2020 budget (chart on above).

In the first chart, the large decrease in the 2020 budget as compared to 2019 actuals is largely due to the reduction in budgeted sales tax resulting from construction activity. In 2019 construction activity accounted for nearly 25% of sales tax revenue. In 2020, with a decrease in construction activity the sales tax budget was reduced to be more in-line with 2017.

In the second chart, the change between 2018 and 2019 actual revenues reflect the loss of General Fund revenue related to Street operations as discussed above which is offset by increases in tax revenue, especially sales tax revenue, which came in significantly higher than budgeted.

TAXES

Tax Type	2017 Actual	2018 Actual	2019 Budget	2019 Estimate	2020 Adopted
Sales Tax	$ 2,923,940	$ 3,249,291	$ 2,652,960	$ 3,252,900	$ 2,864,730
Property Tax	2,047,240	2,330,399	2,353,311	2,360,000	2,436,950
Non-City Utility Tax	1,069,010	1,125,027	1,159,880	1,142,600	1,203,400
B&O	522,561	678,574	719,250	690,000	733,640
City Utility Tax	1,568,387	591,650	828,140	677,900	586,510
Other Tax	56,340	54,722	52,920	51,820	53,120
Grand Total	**$ 8,187,477**	**$ 8,029,663**	**$ 7,766,461**	**$ 8,175,220**	**$ 7,878,350**

Sales Tax revenue represents slightly more than 33% of the City's tax collections and is budgeted to increase by 0.2% over the current year budget. The current year estimate for sales tax collections continues to be in-line with budget as the City hasn't seen a large reduction to

date in sales tax revenue due to COVID. The 2021 proposed budget is $6,310 higher than the 2020 adopted budget.

Property Tax is the second largest tax revenue for the City and accounts for just under 30% of General Fund tax revenue and nearly 21% of all General Fund revenues. Property tax is assessed on real property and is based on the valuation of the property owned as determined by the Mason County Assessor's Office. Property tax is capped at 1% growth or the Implicit Price Deflator (IPD), whichever is lower, plus new construction which is in addition to the 1% cap.

B&O Tax revenue is budgeted to remain flat to the 2020 budget. There are no proposed changes to B&O rates.

Utility Tax revenue is budgeted to increase by nearly 32% from the 2020 budget. The main reason for the increase comes from adjusting Solid Waste Utility Tax collections upward to account for the fully consumed $1,000,000 pre-payment of Solid Waste utility tax made in 2017. Non-City utility tax collections for Natural Gas, Electricity, Telephone, and Cable are budgeted to increase by 2.7% related to use and growth of the City, not rate changes.

Other Tax revenue is budgeted to decrease by $17,900 or roughly 34% from the 2020 budget. The budgeted decrease is significantly from a reduction in gambling tax due to closures related to COVID-17. Other revenue is generated mostly through gambling and various excise tax collections.

GENERAL FUND EXPENDITURES

General Fund expenditures are balanced against revenue and are budgeted to decrease by $6,770 or 0.1% in 2021 from the 2020 budget for a total 2020 General Fund budget of $12,283,920 as compared to a budget of $12,290,690 for 2020.

The chart below provides a high-level view of General Fund expense categories and compares the proposed budget to the 2020 adopted budget. Salaries and benefits comprise nearly 58% of General Fund expenditures and expenses for professional services and other charges make up just under 32% of the 2021 Proposed budget.

Expense Type	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
Wages	$ 4,556,791	$ 4,935,530	$ 4,709,955	$ 4,915,360	(20,170)	-0.4%
Benefits	1,821,810	2,115,340	1,965,114	2,160,890	45,550	2.2%
Service/Charges	3,655,274	3,787,260	3,861,949	3,916,510	129,250	3.4%
Supplies/Equip	266,461	279,980	296,207	277,870	(2,110)	-0.8%
Transfer-Out	1,992,498	1,126,870	878,250	991,780	(135,090)	-12.0%
Subtotal	**$ 12,292,835**	**$ 12,244,980**	**$ 11,711,475**	**$ 12,262,410**	**17,430**	**0.1%**
Capital	$ 480,606	$ 24,210	$ 329,230	$ -	(24,210)	-100.0%
Debt Service	21,494	21,500	21,493	21,510	10	0.0%
Subtotal	502,100	45,710	350,723	21,510	(24,200)	-52.9%
Grand Total	**$ 12,794,935**	**$ 12,290,690**	**$ 12,062,198**	**$ 12,283,920**	**(6,770)**	**-0.1%**

The expenditure table below summarizes the 2021 General Fund budget by department and provides comparative information between the 2020 and 2021 budgets.

Significant expenditure changes for General Fund departments with a +/- 10% change include:

- **Information Technology's** budget decreases by 15.0% due to the elimination of a full-time position offset somewhat by an increase in professional services for contractual costs.
- The change in the **City Clerk** budget of 92% is a little misleading. Beginning in 2021 the City fully implemented a department structure in the General Fund to better track and account for expenses. Until 2021 the City Clerk's expenses were allocated between the City Council, City Manager, and Finance. It was difficult to fully separate the City Clerk costs in the City Council and City Manager budgets as well as previous actuals. The Clerk increase is offset by reductions in the City Manager and City Council budgets.
- There is a decrease of nearly 40% in the **City Council** budget in 2021. This reduction is largely due to the City Clerk budget being moved out of the City Council department and into its own department.
- The **City Manager** department decreases by 36.4% due to the elimination of two full-time positions budgeted in 2020, a Homeless Resource Coordinator position and an Economic Development Coordinator position. Additionally, budgeted costs for the City Clerk were moved out of the City Manager budget.
- The **Non-Departmental** department accounts for General Fund expenditures which do not fit within the purview of a specific department or function of a specific department. Largely budgeted in non-departmental are General Fund cash transfers to support other City Funds and projects. The 13.1% decrease in 2021 is reflective of one-time transfers budgeted in 2020 which are not repeated in 2021. The General fund is contributing over $307,000 for capital projects in 2021 but the transfer of those monies are planned for 2020 and will be used in other funds in 2021.

Additional information on General Fund department expenses can be found in the detail pages in the following section of the Proposed Budget.

Department	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
General Fund Expenditures by Department						
Administrative Services						
Human Resources	$ 244,553	$ 262,000	$ 267,516	$ 271,530	9,530	3.6%
Information Technology	234,709	289,130	294,851	245,870	(43,260)	-15.0%
Risk Management	189,897	219,960	219,840	225,360	5,400	2.5%
City Clerk	37,837	111,770	67,642	215,480	103,710	92.8%
City Council	231,757	167,050	148,325	100,630	(66,420)	-39.8%
City Manager						
City Manager	381,449	628,000	419,201	399,340	(228,660)	-36.4%
Legal	392,309	445,460	421,048	456,580	11,120	2.5%
Detention & Corrections	365,356	404,070	370,520	414,170	10,100	2.5%
Community Dev, Parks, Facilities						
Community Development	523,664	535,520	533,885	558,860	23,340	4.4%
Parks & Recreation	410,472	557,750	402,590	575,450	17,700	3.2%
Facility Services	563,586	514,830	536,854	542,600	27,770	5.4%
Civic Center Activities	47,014	63,760	47,947	68,210	4,450	7.0%
Finance	933,224	1,068,890	980,965	1,035,070	(33,820)	-3.2%
Fire & Emergency Services	1,447,313	1,498,880	1,512,125	1,501,250	2,370	0.2%
Municipal Court						
Community Restitution	95,788	116,290	107,665	122,390	6,100	5.2%
Court Services	366,503.31	420,350.00	410,582.00	446,060.00	25,710	6.1%
Non-Departmental	2,519,557	1,212,580	1,278,973	1,054,290	(158,290)	-13.1%
Police	3,072,032	3,124,110	3,332,761	3,422,280	298,170	9.5%
Public Works	737,915	650,290	708,907	628,500	(21,790)	-3.4%
Grand Total	**$ 12,794,935**	**$ 12,290,690**	**$ 12,062,198**	**$ 12,283,920**	**$ (6,770)**	**-0.1%**

SPECIAL REVENUE FUNDS

From a budgetary perspective, Special Revenue Funds account for revenue sources (other than special assessments and major capital projects) that are legally restricted for a specific purpose. According to the GASB (Governmental Accounting Standards Board) statement #54 and as interpreted by the GFOA (Government Finance Officers Association), at least 20% of revenues need to be legally restricted to qualify as a Special Revenue Fund. The following table lists each fund and the total expenditure budget associated with the fund.

Fund	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
Street Fund	$ 1,173,598	$ 2,280,650	$ 1,609,040	$ 2,069,190	$ (211,460)	-9.3%
Capital Resources Fund	-	-	-	496,630	496,630	N/A
Tourism Fund	52,675	59,130	68,567	61,880	2,750	4.7%
Grand Total	**$ 1,226,273**	**$ 2,339,780**	**$ 1,677,607**	**$ 2,627,700**	**$ 287,920**	**12.3%**

Prior to 2019 street activities were accounted for in the General Fund. Beginning in 2019, the Street Operating Fund was created to account for expenditures and revenues for street operating activities.

- The budget reduction for 2021 is significantly due to a reduction of Street resources being transferred for Capital Projects. Much of those decreases are offset by an increase in expense in the Capital Resources fund for capital projects. The budget also

includes monies for a quarter of the costs related to the new Development Review Technician. The General Fund supports Street Fund activities in the amount of $570,000 for 2021.

- The Council approved the creation of the City's Capital Resources Fund in 2019 for the 2020 calendar year. This fund will be used to account for various capital monies until those monies are appropriated to a project by the City Council through an Ordinance. The 2021 budget includes nearly $497,000 in funding for capital projects.
- The Tourism Fund is used to account for activities (events or programs) to attract visitors to the City of Shelton. The Tourism Advisory Board is responsible for allocating grant monies based on an application and determination process.

DEBT SERVICE FUND

The Debt Service Fund (Bond Fund) is used to account for the accumulation of resources to be used for the retirement of general long-term debt. The appropriation authorized for these funds are determined by the debt payment schedules approved by the City Council (or City Commission) as part of debt issuance and cannot legally be altered by legislative action. As such, debt service payments are the highest budget funding priority.

Fund	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
Bond Fund	$ 282,318	$ 184,490	$ 184,467	$ 184,490	$ -	0.0%
Grand Total	**$ 282,318**	**$ 184,490**	**$ 184,467**	**$ 184,490**	**$ -**	**0.0%**

Significant changes in the debt service fund:

- In 2019 the City made the final payment on the Civic Center debt which accounts for the nearly $98,000 reduction in expenses in 2020.

CAPITAL IMPROVEMENT FUND

The Capital Improvement Fund accounts for the City's capital projects for all funds except Enterprise Funds. Capital project budgets as approved by the City Council do not lapse at the end of the fiscal year, unlike non-capital budgets.

Fund	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
Capital Improvement Fund	$ 4,411,586	$ 2,138,630	$ 921,050	$ 1,572,140	$ (566,490)	-26.5%
Grand Total	**$ 4,411,586**	**$ 2,138,630**	**$ 921,050**	**$ 1,572,140**	**$ (566,490)**	**-26.5%**

The Capital Improvement Fund budget will fluctuate somewhat from year to year depending on budgeted capital projects and the funding sources for those projects.

Capital projects included in the Capital Improvement Fund for 2021 are:

- Street/Transportation: Pavement Maintenance Program, Western Gateway, and the Street funds portion of the Public Works Maintenance Facility Expansion.
- Facilities: New cargo van, Civic Center and Library parking lot improvements.

- ❖ Parks: Ravenna Trail Crosswalk, Northcliff Neighborhood Park Master Plan, Simpson Railroad Trail Design, Eagle Point Trail Construction, and Callanan Irrigation and Backstop Fencing.
- ❖ Construction improvements to the gravel Civic Center Parking Lot.

For more information on the capital projects budgeted for fiscal year 2021 please see the Capital Projects section of the Overview.

ENTERPRISE FUNDS

The City's enterprise funds include the Water, Sewer, Solid Waste, and Storm Drainage utilities. Enterprise funds are established for government operations that are financed and operated in a manner similar to business enterprises. The cost of providing the service to the general public is intended to be financed or recovered through user charges. The table below summarizes the enterprise funds and the budget associated with those functions.

Fund	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
Water Fund	$ 2,287,953	$ 3,720,740	$ 2,760,886	$ 3,865,560	$ 144,820	3.9%
Sewer Fund	7,585,993	5,777,330	5,822,025	7,787,220	2,009,890	34.8%
Solid Waste Fund	137,092	1,459,020	100,903	781,810	(677,210)	-46.4%
Storm Drainage Fund	1,038,145	1,275,710	940,285	1,338,760	63,050	4.9%
Grand Total	**$ 11,049,183**	**$ 12,232,800**	**$ 9,624,099**	**$ 13,773,350**	**$ 1,540,550**	**12.6%**

Significant changes to the City's enterprise funds include:

- ❖ The Water Fund appropriation request includes $1,310,000 for capital projects in 2021 to include the PW maintenance facility expansion, automated meter read, well 1 tank pressurization project, and the pavement maintenance program. The budget also includes funding for 25% of the new Development Review Technician.
- ❖ The large increase in Sewer is significantly related to the $2,139,200 budget for capital projects. Those projects include the automated meter read, MBR filter replacement, a slacktide tank, and a wastewater comprehensive plan update. The Sewer budget also include funding for 25% for the Development Review Technician position.
- ❖ The Solid Waste budget request simply uses most all available resources for continued work toward the closeout of the "C" Street landfill.
- ❖ The Storm Drainage Fund includes funding for 25% of the Development Review Technician and well as $35,000 for capital expenses. This fund will require either a rate increase or a significant reduction in activities in 2021 as the budget will use nearly all available resources including accumulated fund balance.

INTERNAL SERVICE FUNDS

Internal Service Funds are established for those operations which provide services to the operating funds of the City of Shelton on a cost reimbursement basis. These funds, like Enterprise Funds, are financed and operated in a manner similar to a business enterprise except with the users of their services being other City funds. The table below summarizes the Internal Service Funds and the budget associated with those functions.

Fund	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
Payroll Benefits Fund	$ 112,620	$ 219,200	$ 125,600	$ 206,700	$ (12,500)	-5.7%
Equipment Maint & Rental Fund	929,299	863,720	759,577	929,010	65,290	7.6%
Grand Total	**$ 1,041,919**	**$ 1,082,920**	**$ 885,177**	**$ 1,135,710**	**$ 52,790**	**4.9%**

Significant changes between the 2020 and 2021 budgets include:

- The Equipment Maintenance and Rental fund is scheduled to purchase nearly $358,000 in new equipment in 2021 and includes $90,000 for the PW Maintenance Facility expansion project.

OTHER BUDGETED FUNDS

The City budgets two additional funds, a Pension Trust Fund (Firefighters Pension Fund) and a Permanent Fund (Library Endowment Fund). Pension Trust Funds are made up of monies contributed for pension benefits. Permanent funds preserve an original sum of monies and use those resources to generate interest income which can be applied to the funds stated purpose. Principal monies cannot be used for expenses and ensures some level of funding will be available for use in perpetuity.

Fund	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 20 Bud to 21 Proposed	% Change 20 Bud to 21 Proposed
Firefighters Pension Fund	$ 86,074	$ 98,570	$ 88,248	$ 98,570	$ -	0.0%
Library Endowment Fund	-	-	-	-	-	0.0%
Grand Total	**$ 86,074**	**$ 98,570**	**$ 88,248**	**$ 98,570**	**$ -**	**0.0%**

CAPITAL & MAINTENANCE PROJECTS

The City's 2021 – 2026 six-year Capital Improvement Plan is a flexible plan which provides an overview of the City's capital improvement needs. It is important to understand that this multi-year plan does not constitute financial commitment for any year past the current budget year. The six-year CIP simply reflects the projects deemed to be most important at a given point in time. The Capital Plan is updated annually during the budget process and new projects may be added and projects that were on a previous plan may be removed or postponed.

The City adopts Capital projects on a project based budget. The budget for individual projects are approved by Council that budget authority caps the total expenditures for the project. However, unlike other funds, the budgets for capital projects does not lapse at the end of the fiscal year and requires no legislative action to be taken to amend the project budget in future years other than if the project expenses are expected to exceed budget authority.

To control cash and capital projects the City takes two important steps: the first is that current year capital projects must be fully funded and those funds must be secured in order to take a project forward in the budget and: second, once a project is funded by the Council through Ordinance, the funding sources are moved into project accounting so that a duplication of resource use cannot take place.

Funding for capital projects generally come from five major categories:

- **Taxes/Fees**: This source include non-dedicated taxes such as property tax and sales tax, as well as dedicated taxes such as real estate excise tax and impact and other fees paid by developers.
- **User Fees**: This revenue source represents fees paid for specific services provided by the government. These sources are restricted and must be used to support the service for which they were collected. Examples include city utility fees.
- **Grants & Contributions**: This source includes federal, state, county, and other contributions for specific qualified projects.
- **Bonds**: Bonds are interest-bearing debt issued by the City for a specific purpose. Bonds require a formal and on-going source for paying interest and principal payments for the life of the bond.
- **Intergovernmental Loans**: This category represents loans from one department to another. Like bonds, these loans are interest bearing and require a formal payment source and schedule.

The 2021 Proposed Budget includes significant investment to address the City's capital and major maintenance needs. The planned investments total nearly $5.5 million. However, not all capital and major maintenance needs could be funded and priority decisions were required on which projects would be funded in 2021 based on need, public benefit, and the City Council's Strategic Plan.

Six-year Capital Plan Summary

In Thousands							
Fund / Division	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Parks	$ 216.0	$ 266.0	$ 300.0	$ 650.0	$ 375.0	$ 50.0	$ 1,857.0
Facilities	447.9	147.0	78.0	70.0	195.0	30.0	967.9
Transportation	892.3	3,901.7	5,736.3	9,537.3	4,918.3	15,108.3	40,094.3
Water	1,310.0	1,392.0	115.0	395.0	215.0	371.0	3,798.0
Sewer	2,139.2	1,160.0	1,335.0	1,361.0	2,964.0	2,970.0	11,929.2
Storm	35.0	282.5	237.5	220.0	270.0	220.0	1,265.0
EM&R	427.5	313.0	405.0	370.0	225.0	240.0	1,980.5
Total Expense	**$ 5,467.9**	**$ 7,462.2**	**$ 8,206.8**	**$ 12,603.3**	**$ 9,162.3**	**$ 18,989.3**	**$ 61,891.9**
Resource(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
General Fund	$ 307.9	$ -	$ -	$ -	$ -	$ -	$ 307.9
Utility Rates	3,522.5	3,181.5	2,092.5	2,346.0	3,674.0	3,801.0	18,617.5
EM&R Rates	832.3	800.0	850.0	800.0	800.0	800.0	4,882.3
Street/Transportation	589.2	2,761.7	4,648.5	6,114.5	3,760.0	12,597.5	30,471.4
Grants	216.0	253.0	100.0	300.0	362.5	-	1,231.5
Other	-	35.0	-	75.0	-	-	110.0
Unidentified / Funding Gap	-	431.0	515.8	2,967.8	565.8	1,790.8	6,271.3
Total Resouce(s)	**$ 5,467.9**	**$ 7,462.2**	**$ 8,206.8**	**$ 12,603.3**	**$ 9,162.3**	**$ 18,989.3**	**$ 61,891.9**

Facilities Capital Plan

In Thousands							
Project	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Civic Center Parking Lot Construction	$ 400.0	$ -	$ -	$ -	$ -	$ -	$ 400.0
Cargo Van	35.0	-	-	-	-	-	35.0
Civic center parking lot maintenance	6.4	-	-	-	-	-	6.4
Library Parking lot maintenance	6.5	-	-	-	-	-	6.5
Library Deck - membrane and railing replacement	-	90.0	-	-	-	-	90.0
UPS Batteries- Fire Station	-	3.0	-	-	-	-	3.0
City Branded Wayfinding markers	-	10.0	-	-	-	-	10.0
Electronic Door Locks	-	44.0	-	-	-	-	44.0
Floor Repair - CC main room	-	-	8.0	-	-	-	8.0
Fire alarm system - Civic Center	-	-	70.0	-	-	-	70.0
Library amphitheater	-	-	-	20.0	-	-	20.0
Library retaining wall parking lot	-	-	-	50.0	-	-	50.0
Civic Center Carpet replacement- upstairs	-	-	-	-	45.0	-	45.0
Civic Center office cubicle replacement	-	-	-	-	150.0	-	150.0
CC Kitchen remodel	-	-	-	-	-	30.0	30.0
Total Expense	**$ 447.9**	**$ 147.0**	**$ 78.0**	**$ 70.0**	**$ 195.0**	**$ 30.0**	**$ 967.9**
Resource(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
City general fund	$ 247.9	$ -	$ -	$ -	$ -	$ -	$ 247.9
Deptment of Commerce Grant	200.0	-	-	-	-	-	200.0
Libray endowment fund	-	20.0	-	-	-	-	20.0
Sewer	-	20.0	-	-	-	-	20.0
Water	-	12.0	-	-	-	-	12.0
EMR	-	2.0	-	-	-	-	2.0
SMPD	-	2.0	-	-	-	-	2.0
Unidenfied / Funding Gap	-	91.0	78.0	70.0	195.0	30.0	464.0
TOTAL Resource(s)	**$ 447.9**	**$ 147.0**	**$ 78.0**	**$ 70.0**	**$ 195.0**	**$ 30.0**	**$ 967.9**

2021 Project Funding:

- Civic Center Parking Lot: $200,000 General Fund & $200,000 Department of Commerce grant.
- Cargo Van: General Fund
- Civic Center and Library Parking Lot Maintenance: General Fund

Parks Capital Plan

In Thousands							
Project	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Callanan Irrigation and backstop fencing	$ 15.0	$ -	$ -	$ -	$ -	$ -	$ 15.0
Ravenna Trail Crosswalk	1.0	-	-		-	-	1.0
Northcliff Neighborhood Park Master Plan	20.0		-	-	-	-	20.0
Simpson Railroad Multi-model Trail Phase 1 Design	60.0	-	-	-	-	-	60.0
Eagle Point Trail Construction Phase 1	120.0	-	-	-	-	-	120.0
6th St. Park Shelter roof replacement	-	6.0	-			-	6.0
Loop Field Parcel Acquisition	-	100.0	-	-	-	-	100.0
Northcliff Neighborhood Park Development	-	50.0	-	-	-	-	50.0
Simpson Railroad Multi-model Trail Phase 2 Design	-	50.0	-	-	-	-	50.0
Eagle Point Trail Construction Phase 2	-	60.0	-	-	-	-	60.0
Simpson Railroad Multi-model Trail Phase 1 Construction	-	-	300.0	-	-	-	300.0
Simpson Railroad Multi-model Trail Phase 2 Construction	-	-	-	300.0	-	-	300.0
Kneeland Park Playground		-	-	350.0	-	-	350.0
Callanan Park parking	-	-	-		350.0	-	350.0
Hillcrest Neighborhood Park Siting and Master Plan	-	-	-	-	25.0	-	25.0
Johnson Park Playstructure	-	-	-	-	-	25.0	25.0
Turner Neighborhhod Park(Manke/Angle Master Plan)	-	-	-	-	-	25.0	25.0
Total Expense	**$ 216.0**	**$ 266.0**	**$ 300.0**	**$ 650.0**	**$ 375.0**	**$ 50.0**	**$ 1,857.0**
Resource(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
SMPD annual appropriation	$ 216.0	$ 251.0	$ 100.0	$ 300.0	$ 362.5	$ -	$ 1,229.5
Donations	-	10.0	-	50.0	-	-	60.0
In-kind	-	5.0	-	25.0	-	-	30.0
RCO Grant	-	-	150.0	275.0	12.5	-	437.5
Street/Transportation	-	-	50.0	-	-	-	50.0
Unidentified / Funding Gap	-	-	-	-	-	50.0	50.0
Total Resource(s)	**$ 216.0**	**$ 266.0**	**$ 300.0**	**$ 650.0**	**$ 375.0**	**$ 50.0**	**$ 216.0**

2021 Project Funding:

- ❖ All other Parks projects are funded by the Shelton Municipal Park District

Water Capital Plan

In Thousands							
Project	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Maintenance Facility Expansion	$ 180.0	$ -	$ -	$ -	$ -	$ -	$ 180.0
Automated Meter Read (AMR)	850.0	-	-	-	-	-	850.0
Well 1 to HS Tank Pipe Pressurization Proj.	265.0	908.0	-	-	-	-	1,173.0
Pavement Maintenance Program	15.0	15.0	15.0	15.0	15.0	15.0	90.0
High School Tank Recoating	-	344.0	-	-	-	156.0	500.0
New Generator Well 3 & 4	-	125.0	-	-	-	-	125.0
Angleside PS Control Improvements #1	-	-	100.0	-	-	-	100.0
On-Site Chlorine Generation	-	-	-	380.0	-	-	380.0
System Repair and Replacement	-	-	-	-	100.0	100.0	200.0
Hydrant Improvements	-	-	-	-	100.0	100.0	200.0
Total Expense	**$1,310.0**	**$1,392.0**	**$115.0**	**$395.0**	**$215.0**	**$371.0**	**$3,798.0**
Resourc(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Water rates	$1,310.0	$1,392.0	$115.0	$395.0	$215.0	$371.0	$3,798.0
Unidenfied / Funding Gap	-	-	-	-	-	-	-
TOTALS SOURCES	**$1,310.0**	**$1,392.0**	**$115.0**	**$395.0**	**$215.0**	**$371.0**	**$3,798.0**

2021 Project Funding:

- All projects are funded by Water Fund revenue

Sewer Capital Plan

In Thousands							
Project	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Front Street Pipe Removal, Design & Construction	$ 30.0	$ 635.0	$ -	$ -	$ -	$ -	$ 665.0
MBR WWTP Reclaimed Tank Design	93.2	-	-	-	-	-	93.2
WWTP Slacktide Tank Pump & Forcemain System	300.0	-	-	-	-	-	300.0
MBR WWTP Filter Replacement	425.0	-	-	-	-	-	425.0
Comprehensive Plan Update	296.0	-	-	-	-	-	296.0
Advance Metering Infrastructure	850.0	-	-	-	-	-	850.0
Maintenance Facility Expansion	120.0	-	-	-	-	-	120.0
Pavement Maintenance Program	25.0	25.0	25.0	25.0	25.0	25.0	150.0
MBR WWTP Expansion Phase 2 & 3 Capacity Study	-	60.0	-	-	-	-	60.0
MBR Phase 3 Treatment Property Purchase	-	200.0	-	-	-	-	200.0
Forcemain Inspection & Repair	-	40.0	-	-	-	-	40.0
WWTP Biosolids Storage and Processing	-	50.0	350.0	-	-	-	400.0
Basin 4 & 6 I&I studies	-	50.0	-	-	50.0	-	100.0
Pump Replacements	-	40.0	40.0	40.0	-	-	120.0
Pipe & MH replacements/lining	-	15.0	20.0	20.0	25.0	25.0	105.0
Biosolids capacity and rate study	-	25.0	-	-	-	-	25.0
Water and Wastewater Rate Study	-	20.0	-	-	-	-	20.0
MBR WWTP Phase 2 Capacity Expansion Design	-	-	850.0	850.0	-	-	1,700.0
Upsize Trunkline parallel to Olympic Hwy South	-	-	50.0	401.0	-	-	451.0
Harvard Ave Trunkline Replacement	-	-	-	25.0	164.0	-	189.0
MBR WWTP Phase 2 Capacity Expansion Construction	-	-	-	-	2,700.0	2,700.0	5,400.0
Basin 4 I&I Reduction Design	-	-	-	-	-	220.0	220.0
Total Expense	**$ 2,139.2**	**$ 1,160.0**	**$ 1,335.0**	**$ 1,361.0**	**$ 2,964.0**	**$ 2,970.0**	**$ 11,929.2**
Resourc(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Sewer Rates	$ 1,750.0	$ 1,160.0	$ 1,335.0	$ 1,361.0	$ 2,964.0	$ 2,970.0	$ 11,540.0
Grant	389.2	-	-	-	-	-	389.2
Unidenfified / Funding Gap	-	-	-	-	-	-	-
Total Resource(s)	**$ 2,139.2**	**$ 1,160.0**	**$ 1,335.0**	**$ 1,361.0**	**$ 2,964.0**	**$ 2,970.0**	**$ 11,929.2**

2021 Project Funding:

- WWTP Reclaimed Tank and Comprehensive Plan are 100% grant funded
- All other Sewer projects are funded by Sewer Fund revenue

Storm Drainage Capital Plan

In Thousands							
Project	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Maintenance Facility Expansion	$ 15.0	$ -	$ -	$ -	$ -	$ -	$ 15.0
Pavement Maintenance Program	20.0	20.0	20.0	20.0	20.0	20.0	120.0
2nd & Birch Hosue Removal and Creek Restoration	-	30.0	-	-	-	-	30.0
Master Plan Update & Adoption of Capacity Charges	-	60.0	60.0	-	-	-	120.0
Western Gateway Schedule A	-	142.5	142.5	-	-	-	285.0
Canyon Creek WQ and Flood Reduction	-	20.0	-	-	-	-	20.0
North 3rd Stret & Laurel Pipe Upgrade	-	10.0	-	-	-	-	10.0
West Franklin Street Drainage Improvements	-	-	15.0	-	-	-	15.0
Wallace Kneeland Roundabout #1 and #2	-	-	-	200.0	-	200.0	400.0
Western Gateway Schedule C	-	-	-	-	250.0	-	250.0
Total Expense	**$ 35.0**	**$ 282.5**	**$ 237.5**	**$ 220.0**	**$ 270.0**	**$ 220.0**	**$ 1,265.0**
Resourc(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Storm Rates	$ 35.0	$ 282.5	$ 237.5	$ 220.0	$ 270.0	$ 220.0	$ 1,265.0
Unidenfified / Funding Gap	-	-	-	-	-	-	-
Total Resource(s)	**$ 35.0**	**$ 282.5**	**$ 237.5**	**$ 220.0**	**$ 270.0**	**$ 220.0**	**$ 1,265.0**

2021 Project Funding:

- All Storm Drainage Fund projects are funded through Storm Fund revenue

Equipment Maintenance & Rental

In Thousands							
Project	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Vacuum Style Street Sweeper	$ 315.0	$ -	$ -	$ -	$ -	$ -	$ 315.0
Vehicle Code Reader	12.5	-	-	-	-	-	12.5
New Shop Welder	10.0	-	-	-	-	-	10.0
Maintenance Facility Expansion	90.0	-	-	-	-	-	90.0
Sidewalk Grinder	-	8.0	-	-	-	-	8.0
Small Road Grader	-	240.0	-	-	-	-	240.0
Fuel Trailer	-	15.0	-	-	-	-	15.0
Patch Machine	-	50.0	-	-	-	-	50.0
Small Backhoe	-	-	150.0	-	-	-	150.0
Forklift	-	-	35.0	-	-	-	35.0
10 Yard Dump Truck	-	-	220.0	-	-	-	220.0
5 Yard Dump Truck	-	-	-	150.0	-	-	150.0
Sludge Truck	-	-	-	200.0	-	-	200.0
Air Compressor Trailer	-	-	-	20.0	-	-	20.0
Pickup replacements	-	-	-	-	120.0	120.0	240.0
Pool and Engineering car replacements	-	-	-	-	25.0	40.0	65.0
City Shop Unleaded and Diesel Fuel Tank Upgrades	-	-	-	-	80.0	80.0	160.0
Total Expense	**$ 427.5**	**$ 313.0**	**$ 405.0**	**$ 370.0**	**$ 225.0**	**$ 240.0**	**$ 1,980.5**
Resourc(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
EM&R Rates	$ 427.5	$ 313.0	$ 405.0	$ 370.0	$ 225.0	$ 240.0	$ 1,980.5
Unidenfified / Funding Gap	-	-	-	-	-	-	-
Total Resource(s)	**$ 427.5**	**$ 313.0**	**$ 405.0**	**$ 370.0**	**$ 225.0**	**$ 240.0**	**$ 1,980.5**

2021 Project Funding:

- All capital purchases and projects are funded through EM&R rate revenue

Transportation Capital Plan

In Thousands							
Project	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Maintenance Facility Expansion	$ 180.0	$ -	$ -	$ -	$ -	$ -	$ 180.0
Western Gateway Phase A - Railroad Avenue	172.3	2,820.1	555.5	-	-	-	3,547.9
Pavement Maintenance Program	540.0	400.0	400.0	400.0	400.0	400.0	2,540.0
Access Shelton Phase III-A	-	202.0	65.0	2,469.0	-	-	2,736.0
Access Shelton Phase III-B	-	200.0	2,820.0	-	-	-	3,020.0
Western Gateway Phase B - 7th Street	-	56.3	637.5	-	-	-	693.8
Non-Motorized Plan	-	60.0	-	-	-	-	60.0
Signage Improvement Plan	-	25.0	25.0	25.0	25.0	25.0	125.0
Guardrail Replacement	-	83.3	83.3	83.3	83.3	83.3	416.7
Pedestrian Crossing Improvements	-	25.0	25.0	25.0	25.0	25.0	125.0
Sidewalk Replacement Program	-	30.0	30.0	30.0	30.0	30.0	150.0
Access Shelton Phase V, Brockdale Road	-	-	225.0	1,275.0	-	-	1,500.0
Olympic Highway North	-	-	270.0	1,530.0	-	-	1,800.0
Access Shelton Phase VI, Olympic Highway North	-	-	600.0	3,400.0	-	-	4,000.0
Western Gateway Phase C - West Downtown	-	-	-	300.0	1,700.0	-	2,000.0
North Shelton Interchange Upgrade	-	-	-	-	480.0	2,720.0	3,200.0
Railroad Avenue	-	-	-	-	600.0	3,400.0	4,000.0
Cota Street	-	-	-	-	300.0	1,700.0	2,000.0
Turner Avenue	-	-	-	-	150.0	850.0	1,000.0
Park Street	-	-	-	-	300.0	1,700.0	2,000.0
Angleside Road / 7th Street	-	-	-	-	525.0	2,475.0	3,000.0
Railroad Avenue	-	-	-	-	300.0	1,700.0	2,000.0
Total Expense	**$ 892.3**	**$ 3,901.7**	**$ 5,736.3**	**$ 9,537.3**	**$ 4,918.3**	**$ 15,108.3**	**$ 40,094.3**
Resourc(s)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**
Transportation / Capital Resouces	$ 832.3	$ 800.0	$ 800.0	$ 800.0	$ 800.0	$ 800.0	$ 4,832.3
General Fund	60.0	-	-	-	-	-	60.0
Grant	-	2,761.7	4,498.5	5,839.5	3,747.5	12,597.5	29,444.7
Unidentified / Funding Gap	-	340.0	437.8	2,897.8	370.8	1,710.8	5,757.3
Total Resource(s)	**$ 892.3**	**$ 3,901.7**	**$ 5,736.3**	**$ 9,537.3**	**$ 4,918.3**	**$ 15,108.3**	**$ 40,094.3**

2021 Project Funding:

- Maintenance Facility Expansion: $120,000 Street/Capital Resources & $60,000 General Fund
- Western Gateway: Street funded
- Pavement Maintenance Program: Transportation Benefit District Sales Tax ($400,000 from 2021 revenue and $140,000 from previous year revenue in the Capital Resource Fund)

BUDGET PROCESS

Budgets serve as control mechanisms in the operations of government units. Legal budgetary (expenditure) control in the City of Shelton is maintained at the fund level. Administration can amend budgets where there is no overall expenditure increase within the fund to meet unforeseen changes to the adopted budget. Supplemental appropriations that amend the total expenditure within a fund or funds, or amend working capital in the case of Proprietary Funds, require an Ordinance be adopted by the City Council. All operating budgets lapse at fiscal year-end (December 31st). Though budgetary control is at the fund level, budget and actual

information for cost accounting purposes is maintained by department/division, project, program, organization unit, and/or object level.

For all funds, the City considers restricted amounts to have been spent first when expenditures are incurred for purposes for which both restricted and unrestricted resources are available. When expenditures occur of unrestricted monies, unassigned resources are always considered the last monies to be included after all other qualified resources have been exhausted.

The City must adopt its budget prior to the ensuing fiscal year. This usually occurs in December following several months of analysis by the City Council and staff. The first step in the budget process is the establishment of the baseline budget required to carry existing programs into the next year. The next step involves the development of issues impacting, generally financially, the next fiscal year and beyond as well as establishing budget priorities through the City Council. The emphasis of this process is generally placed on the General Fund and to a lesser extent Special Revenue Funds as the operation of other funds are tied to Ordinances, contractual agreements, or separately established rate structures. Once the baseline operations have been reviewed and adjusted based on administrative policy, program expansion (or contraction) is decided upon largely based on the level of projected resources available after the establishment of sufficient fund balances.

After the City Manager's proposed budget is prepared, the City Council spends approximately eight to ten weeks reviewing the budget submittal. Public meetings are held for Council to gather input from residents and businesses before they make their final decisions on the budget. When the City Council has finished their review and any final adjustments are completed a balanced budget, as required by state law, is adopted by the City Council through Ordinance.

BUDGETING GUIDING PRINCIPLES

The City of Shelton is in process of a major policy update, which includes many policies which will update the City's budgeting and financial processes to meet best practices. The City made a deliberate decision to implement these budget and financial policy changes or updates during the 2020 budget process, and the adopted budget reflects those coming changes.

The budget process is part of an overall policy framework that guides the services and functions of the City. The budget process is the vehicle the City Council uses to allocate resources to City programs to implement the City's overall goals and priorities.

REVENUE POLICIES

Conservative Revenue Budgeting: The City will budget revenue sources in a realistic, yet conservative, manner to help provide reasonable assurance that actual revenue will be equal or greater than budgeted revenue, overall.

User Charges and Fees: The City will review charges and fees for service on a periodic basis and will modify charges to maintain balance with increasing costs of providing services.

User Charges & Taxes Related to Market Rates: The City will consider its user charges, fees, and tax rates in connection with those of neighboring entities and other governments of similar size and city populations to help attract business and residences to the City.

Timely Reimbursement: Many of the grants the City receives are reimbursement based, meaning the City must expend the funds for qualified expenses and then request reimbursement from the grantor. The City will request reimbursement on a timely basis to maximize the City's cash balances and funds available for investment.

Aggressive Collection Effort: The City will follow an aggressive policy of collecting all monies due to the City to the extent that the collection effort remains cost effective.

EXPENDITURE POLICIES

Structurally Balanced Budget: The City will strive to adopt a budget in which ongoing revenues equal or exceed ongoing expenses. One-time revenue, including fund balance, should not be used to pay for ongoing or recurring costs.

Conservative Expenditure Budgeting: The City will budget for expenses in a realistic, yet conservative, manner to help provide reasonable assurance that actual expenses will be equal to or less than budget. The budget will be built so that on-going expenditures are equal or less than on-going budgeted revenue.

Program Review: The City Manager shall perform a periodic review of staff and programs of the City for both efficiency and effectiveness. The review will include evaluating alternate methods of service delivery. Programs that are determined to be inefficient, ineffective, or inconsistent with the City Council's strategic goals shall be reduced or discontinued.

Maintenance and Operation Planning: Maintenance of current assets shall take priority over new capital projects whenever possible. The City Council shall ensure that there are stable sources of revenue to fund on-going maintenance needs. Before any new capital asset is approved, staff shall present an estimate of the life cycle and annual on-going maintenance costs. The City Council shall not approve of new capital projects unless there is funding for the on-gong cost of maintenance for the asset.

Self-Supporting Proprietary Funds: The City's Utility Funds, Water, Sewer, Storm Drainage, and Solid Waste as well as the City's Internal Service Funds, Payroll Benefits and Equipment Maintenance and Rental, will be self-supporting. The costs for providing these services is expected to be fully funded from user fees and charges for the service. If these funds produce a loss, both expenditure reductions and user fee rates will be evaluated and adjusted to achieve, at a minimum, a break-even bottom line.

Capital Improvement Plan: The City will update its six-year capital facilities plan on an annual basis as required by the Growth Management Act. A preliminary plan will be established early in the budget process to serve as a guideline during budget development and the capital plan will be included in the annual budget.

FUND BALANCE RESERVE

Key concepts of the City's Fund Balance Policy are outlined below. The Fund Balance policy will be considered by the City Council in Spring 2020. The objective of the policy is to provide guidance for the establishment and continued maintenance of fund balances and the conditions under which these reserves may be used.

Targeted Fund Balances: Adequate fund balances are maintained to allow the City to continue providing services to the community in case of unexpected emergencies, unfunded mandates,

and/or economic downturns. Fund balances may also be used to meet seasonal cash flow shortages as necessary. The targeted fund balance levels for key funds are as follows:

- ✓ General Fund – 16% of current-year budgeted expenses
- ✓ Street Fund – 16% of current-year budgeted expenses
- ✓ Utility Funds – 20% of current-year budgeted expenses

General Fund: The City will strive to maintain a General Fund operating reserve with an upper goal of 16% of the adopted current-year General Fund expenditures, less any one-time items. The intent is to limit the use of unassigned General Fund balances to addressing unanticipated, non-recurring needs or know and planned future obligations. Fund balances shall not normally be applied to recurring annual operating expenditures. Unassigned balances may, however, be used to allow time for the City to restructure its operations in a deliberate manner, but such use will only take place in the context of long-term financial planning. Any use of fund reserves that reduces the balance below goal amount must include a repayment/replenishment plan.

General Fund reserves in excess of the 16% target may be considered to supplement "pay as you go" capital outlay and other one-time expenditures. These funds many not be used to establish or support costs that are recurring in nature. Unless otherwise noted, all parameters of use of General Fund balance are also applied to all other fund balances.

Funding Reserves: Funding of reserve targets will generally come from excess revenues over expenses or from one-time revenues.

Excess Reserves: Reserves for specific funds are restricted for the activities of that fund, with the exception of the General Fund, which can be used for any good governmental purpose. In the event fund reserves exceed the target balance at the end of a fiscal year, those excess reserves may be used in the following ways:

- ✓ Fund future liabilities. Priority will be given to those items that relieve budget or financial operating pressure in future periods.
- ✓ Appropriated to lower the amount of bonds or contributions needed to fund capital projects in the City's Capital Improvement Program.
- ✓ Fund one-time expenses that do not increase recurring operating costs and that cannot be funded through current revenues. Emphasis will be placed on one-time uses that reduce future operating costs.
- ✓ Fund start-up expenses for new programs, provided that such action is approved by the City Council and is considered in the context of multi-year projections of revenue and expenses approved by the City's Finance Department.

DEBT POLICY

Key concepts of the City's Debt Policy are outlined below. The Debt policy will be considered by the City Council in Spring 2020. The objective of this policy is to provide general guidance for the issuance and management of all City debt. The City issues debt in accordance with the Revised Code of Washington (RCW), in particular chapters 39.36, 39.46, and 39.53, along with all other City, State, and federal laws, rules, and regulations.

Debt Issuance: The City will only utilize debt financing to fund capital improvement projects that cannot be reasonably funded on a pay-as-you-go basis. All City projects proposed to be financed through debt must have a full analysis of a) alternative methods of financing the

project, b) future operating and maintenance costs, including debt service expense, associated with the project, c) projected cash inflows which can reasonably be applied to reduce the amount being financed, and d) projected cash outflows for construction/equipment in order to ensure arbitrage compliance.

The City will, unless otherwise justified, use tax-exempt bond proceeds within the established time frame pursuant to the bond ordinance, contract, or other document to avoid arbitrage. The City will maintain a system of recordkeeping and reporting to meet the arbitrage rebate compliance requirement of the IRS (Internal Revenue Service, IRC 148) regulation. The City will repay principal plus interest in accordance with the payment terms of the bond or contract. Furthermore, the City will comply with all bond or contract covenants. This includes, but is not limited to, any undertakings to provide ongoing disclosure and notice of certain listed events under SEC (Securities and Exchange Commission) Rule 15C2-12.

Debt cannot be issued for a longer maturity than a conservatively estimated useful life of the asset to be financed.

The City will maintain good communications with bond rating agencies and investors about its fiscal condition. The City will provide full disclosure on financial reports and in disclosure documents.

Short-term debt: The City may use short-term debt, defined as a period not to exceed three years, to fund cash flow needs, which may be caused by a delay in receipting tax revenues or issuing long-term debt. The City will not issue short-term debt for current operations.

The City may issue interfund loans rather than issuing outside debt to meet short-term cash flow needs. The issuance of an interfund loan will be permissible only after an analysis of the loaning fund(s) indicate(s) that excess funds are available and the use of these funds will not impact the loaning fund(s) current operations or constitute a permanent diversion of funds. All interfund borrowing will bear interest based upon at least the prevailing LGIP (Local Government Investment Pool) rate.

The City's Finance Director has the authority to approve short-term interfund loans for a period not to exceed three calendar months. The City Manager has the authority to approve loans for a period not to exceed 12 calendar months. The Finance Director shall notify the City Council of any use of directorial or managerial approved loans at the first reasonable opportunity.

Long-term debt: The City will issue long-term debt, defined as a period of time greater than three years, for capital projects, which cannot reasonably be financed on a pay-as-you-go funding strategy from anticipated cash flows. Acceptable uses of bond proceeds are one-time capital projects that can be capitalized and depreciated in accordance with the City's accounting principles. Refunding debt is also an acceptable use.

The City may issue interfund loans rather than issuing outside debt instruments as a means of financing capital improvements. The issuance of an interfund loan will be permissible only after an analysis of the loaning fund(s) indicate that excess funds are available and the use of these funds will not impact the loaning fund(s) current operations or constitute a permanent diversion of funds. All interfund borrowing will bear interest based upon at least the prevailing LGIP (Local Government Investment Pool) rate.

The decision to use an interfund loan rather than outside debt to fund capital projects will be based on which is deemed to be the most cost effective approach to meet City capital needs. The City's Finance Department is responsible for making such an assessment.

The City will not issue long-term debt for current operational needs.

Debt Issuance Process: The Finance Director will determine the method of sale best suited for each issue of debt (competitive sale, negotiated sale, or private placement).

The Finance Director and bond counsel will coordinate their activities and review all debt issuance to ensure that all securities are issued in compliance with state and federal legal and regulatory requirements by the State and the Federal Government's laws, rules and regulations.

For each issue, the City will evaluate the costs and benefits of bond insurance or other credit enhancements. Any credit enhancement purchases by the City must be competitively procured.

INVESTMENT POLICY

Key concepts of the City's Investment Policy are outlined below. The Investment policy will be considered by the City Council in Spring 2020. The purpose of the Investment Policy is to establish the investment objectives, delegation of authority, standards of prudence, eligible investments and transactions, internal controls, reporting requirements and custodial procedures necessary for the prudent management and investment of the funds of the city.

Scope: The city commingles its funds to maximize investment earnings and to increase efficiencies with regard to investment pricing, safekeeping, and administration. Investment income will be allocated to the various funds based on their respective participation and in accordance with generally accepted accounting principles. The city maintains the right to separate certain funds and exclude them from the scope of this policy. Investment funds may include:

- ✓ General Fund
- ✓ Special Revenue Funds
- ✓ Debt Service Funds
- ✓ Capital Project Funds
- ✓ Enterprise Funds
- ✓ Internal Services Funds
- ✓ Any new fund created by the city council, unless specifically exempted

Objectives: The primary objectives, in priority order, of the city's investment activities shall be safety, liquidity, and return on investment.

- ✓ **Safety**. Safety of principal is the foremost objective of the city's investment policy. City investments shall be made in a manner that seeks to ensure the preservation of capital in the overall portfolio.
- ✓ **Liquidity**. The city's investment portfolio will remain sufficiently liquid to enable the city to meet all reasonably anticipated operating requirements. This will be accomplished by either maintaining a portion of the portfolio in investment vehicles offering daily liquidity at face value, such as the Washington State Local Government Investment Pool (LGIP) or structuring the portfolio so that securities mature concurrently with cash needs to

meet anticipated demands. Because all possible cash demands cannot be anticipated, the portfolio should consist largely of securities with active secondary or resale markets.

- ✓ **Return on investment.** The city's investment portfolio shall be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles, taking into account the city's investment risk constraints, the cash flow characteristics of the portfolio, and earnings relative to the State of Washington LGIP. Return on investment is of lesser importance compared to the safety and liquidity objectives described above.

Standards of care and ethics: The standard of care to be used by investment officials shall be the "Prudent Person" standard and shall be applied in the context of managing an overall portfolio under prevailing economic conditions at the moment of investment commitments. Investment officers acting in accordance with written procedures and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are timely reported and appropriate action is taken to control adverse developments.

The "Prudent Person" standard requires that investments be made with judgment and care, under circumstances then prevailing, that a person of prudence, discretion and intelligence would exercise in the management of his or her own affairs, not for speculation, but for investment, considering the probable safety of capital as well as the probable income to be derived.

Investment officials will recognize that the investment portfolio is subject to public review and evaluation. The overall program will be designed and managed with a degree of professionalism that is worthy of the public trust.

Delegation of authority and responsibilities*:* The city council, as the governing body will retain ultimate fiduciary responsibility for the portfolio. The city council will receive quarterly reports, designate an investment officer, and review and adopt any changes to the investment policy.

The Finance Director (or their designee) is the Investment Officer of the city. No person may initiate investment transactions on behalf of the Investment Officer without the express written consent of the Investment Officer. The Finance Director shall be responsible for oversight of the investment program and shall help establish the investment strategies applicable to all investments of funds held by or belonging to the city, its agencies and departments.

The city may engage the services of an external investment advisor to assist in the management of the city's investment portfolio in a manner consistent with the city's objectives. Such external advisors may be granted non-discretionary authority to purchase and sell investment securities in accordance with this Investment Policy.

Authorized Investments: The City is authorized to invest in various securities including, LGIP, US Treasury Obligations, Government Sponsored Enterprises (GSE's) securities, Repurchase Agreements, Bankers Acceptance, Commercial Paper, Certificates of Deposit/Bank Deposits/Savings, Bonds of the State of Washington, General Obligation Bonds of Other States, Corporate Notes, and Supranational Bonds,

Diversification: The City will diversify its investment portfolio by institution, type of investment security, and years to maturity to avoid over-concentration in any of these areas to reduce overall portfolio risks.

Maturities: The City will invest in securities with maturity dates five years or less from the date of purchase, with the exception if the investment is made to coincide as nearly as practicable with the expected use of the funds. The maximum weighted average maturity of the total portfolio shall not exceed three years. Liquidity funds will be held in the LGIP, bank deposits, or in short-term instruments maturing six months or less.

BUDGET CALENDAR

Date	Activity
23-Jun	OpenGov Budget Builder training
25-Jun	2021 budget instance open to users
30-Jun	Current labor allocations to users
1-Jul	Supplemental form and instructions to users
14-Jul	June YTD actuals to departments for estimate process
17-Jul	Labor costs updated for current CPI and benefit cost increases
28-Jul	2020 Year-End estimates due to finance for upload
5-Aug	2021 Base Budget and Supplementals due to finance
Week of Aug 10	Department meetings with finance
Week of Aug 17	Department meetings with CM and finance
12-Aug	Leadership Team supplemental meeting
18-Aug	Council Study Session
28-Aug	CM preliminary budget decisions
2-Sep	Preliminary decisions to Leadership Team
3-Sep	Court of Last Resort, if needed
4-Sep	CM final budget decisions
15-Sep	Council Study Session
September	Proposed budget created
6-Oct	Proposed budget presentation to Council
Oct/Nov	Council consideration of budget
Dec	Council adopts 2021 budget

GENERAL FUND SUMMARY

	2019 Actual	2020 Budget	2020 YE Estimate	2021 Proposed Budget	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**3,248,251**	**3,299,487**	**3,299,487**	**3,336,439**		
FUNDING SOURCES						
Taxes	8,462,779	7,878,350	8,431,200	8,531,110	652,760	8.3%
Licenses & Permits	355,352	319,600	276,740	285,100	(34,500)	-10.8%
Intergovernmental Revenue	741,394	420,520	426,570	423,520	3,000	0.7%
Charges for Goods/Service	2,881,716	3,393,670	2,713,940	2,818,140	(575,530)	-17.0%
Fines & Penalties	121,146	105,300	58,550	102,300	(3,000)	-2.8%
Miscellaneous Revenue	239,596	173,250	192,150	123,750	(49,500)	-28.6%
Other Increase in Fund Balance	352	-	-	-		
Other Financing Sources	43,837	-	-	-		
Total Revenues	**12,846,171**	**12,290,690**	**12,099,150**	**12,283,920**	**(6,770)**	**-0.1%**
EXPENDITURES BY DEPARTMENT						
Administrative Services						
Human Resources	244,553	262,000	267,516	271,530	9,530	3.6%
Information Technology	234,709	289,130	294,851	245,870	(43,260)	-15.0%
Risk Management	189,897	219,960	219,840	225,360	5,400	2.5%
City Clerk	37,837	111,770	67,642	215,480	103,710	92.8%
City Council	231,757	167,050	148,325	100,630	(66,420)	-39.8%
City Manager						
City Manager	381,449	628,000	419,201	399,340	(228,660)	-36.4%
Legal	392,309	445,460	421,048	456,580	11,120	2.5%
Detention & Corrections	365,356	404,070	370,520	414,170	10,100	2.5%
Community Dev, Parks, Facilities						
Civic Center Activities	47,014	63,760	47,947	68,210	4,450	7.0%
Community Development	523,664	535,520	533,885	558,860	23,340	4.4%
Facility Services	563,586	514,830	536,854	542,600	27,770	5.4%
Parks & Recreation	410,472	557,750	402,590	575,450	17,700	3.2%
Finance	933,224	1,068,890	980,965	1,035,070	(33,820)	-3.2%
Fire & Emergency Services	1,447,313	1,498,880	1,512,125	1,501,250	2,370	0.2%
Municipal Court						
Community Restitution	95,788	116,290	107,665	122,390	6,100	5.2%
Court Services	366,503	420,350	410,582	446,060	25,710	6.1%
Non-Departmental	2,519,557	1,212,580	1,278,973	1,054,290	(158,290)	-13.1%
Police	3,072,032	3,124,110	3,332,761	3,422,280	298,170	9.5%
Public Works	737,915	650,290	708,907	628,500	(21,790)	-3.4%
Total Expenditures	**12,794,935**	**12,290,690**	**12,062,198**	**12,283,920**	**(6,770)**	**-0.1%**
Ending Fund Balance	**3,299,487**	**3,299,487**	**3,336,439**	**3,336,439**		
Change in Fund Balance	**51,236**	**-**	**36,952**	**-**		

GENERAL FUND REVENUE SUMMARY

	2019 Actual	2020 Budget	2020 YE Estimate	2021 Proposed Budget	$ Change 21 - 20	% Change 21 - 20
Excise Taxes in Lieu of Property Tax	9,269	12,720	2,600	5,220	(7,500)	-59.0%
Business and Occupation Taxes	2,695,099	2,563,950	3,085,000	3,126,040	562,090	21.9%
Property Tax	2,394,874	2,436,950	2,480,000	2,528,810	91,860	3.8%
Retail Sales and Use Taxes	3,363,536	2,864,730	2,863,600	2,871,040	6,310	0.2%
Business Licenses and Permits	175,887	172,100	171,600	172,100	-	0.0%
Non-Business Licenses and Permits	179,465	147,500	105,140	113,000	(34,500)	-23.4%
State Shared Revenues, Entitlements and Impact Payments	676,322	394,520	397,330	397,520	3,000	0.8%
Federal Direct Grants	2,660	1,000	1,990	1,000	-	0.0%
State Grants	53,398	25,000	25,000	25,000	-	0.0%
General Government	2,040,307	2,526,970	2,377,550	2,267,640	(259,330)	-10.3%
Public Safety	367,702	378,100	66,200	84,400	(293,700)	-77.7%
Utilities	72,434	85,000	-	85,000	-	0.0%
Culture and Recreation	445,070	427,000	290,040	409,500	(17,500)	-4.1%
Non-Court Fines and Penalties	4,004	6,000	1,500	3,000	(3,000)	-50.0%
Civil Parking Infraction Penalties	530	100	-	100	-	0.0%
Criminal Non-Traffic Fines	11,551	12,500	3,900	7,500	(5,000)	-40.0%
Civil Infraction Penalties	68,765	60,700	35,400	60,700	-	0.0%
Rents and Leases	91,605	85,750	88,670	68,250	(17,500)	-20.4%
Interest and Other Earnings	96,309	82,500	41,400	52,500	(30,000)	-36.4%
Contributions and Donations from Nongovernmental Sources	47,653	2,000	51,500	-	(2,000)	-100.0%
Other	49,731	5,600	9,210	5,600	-	0.0%
Total Revenues	**12,846,171**	**12,290,690**	**12,097,630**	**12,283,920**	**(6,770)**	**-0.1%**

MISSION STATEMENT

Taking care of the people who take care of Shelton.

DEPARTMENT SUMMARY

The City of Shelton Administrative Services Department includes the functions of Human Resources, Risk Management, Payroll, and Information Technology. The department endeavors to promote an equitable and engaging work environment so employees can do their best work and make a difference for the people and community we serve. The Department focuses on providing high quality services to all City employees and departments and works collaboratively with department leaders to align policies, practices, and programs citywide to fulfill the vision of workforce equity and excellence.

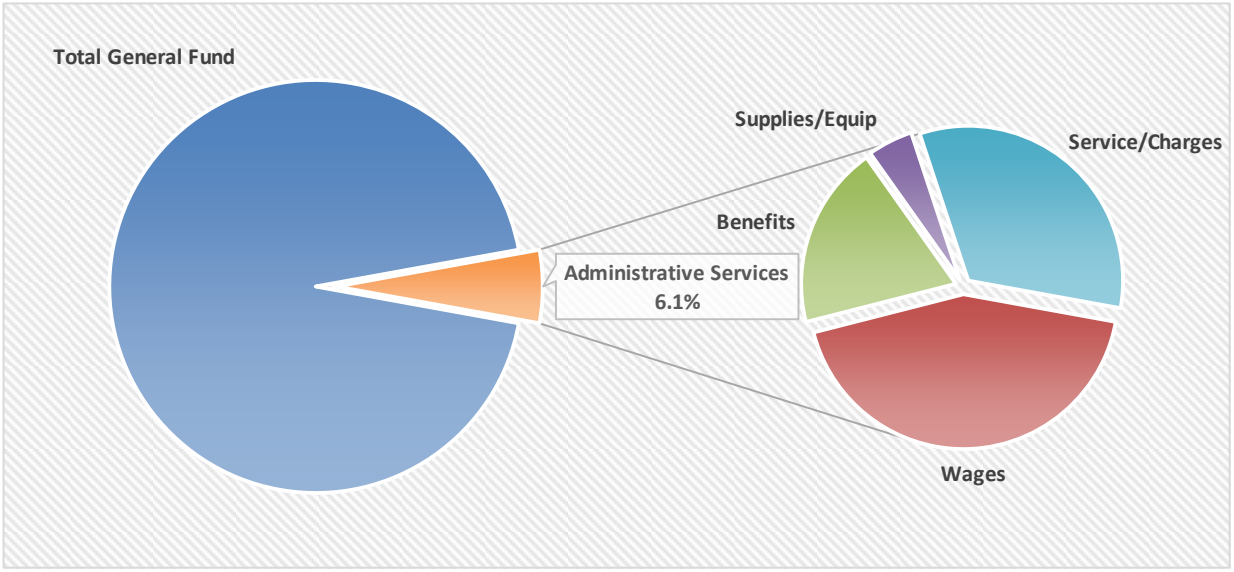
BUDGET HIGHLIGHTS

The Administrative Services Department was formally created as part of the 2020 budget and includes the budgets and functions of the Human Resources and Information Technology departments. The budget decreases by $28,330 or 3.7% from the 2020 budget. The 2021 Proposed includes a reduction of 1FTE in the Information Technology department in response to COVID-19 revenue generation which is offset somewhat by an increase in professional services. Other changes are attributed to inflationary increases for services as well as COLA adjustments to salary and rate changes for benefit it costs.

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
FUNDING SOURCES						
General Fund Resources	**669,158**	**771,090**	**782,207**	**742,760**	**(28,330)**	**-3.7%**
EXPENDITURES BY DIVISION						
Human Resources	244,553	262,000	267,516	271,530	9,530	3.6%
Information Technology	234,709	289,130	294,851	245,870	(43,260)	-15.0%
Risk Management	189,897	219,960	219,840	225,360	5,400	2.5%
Total Expenditures	**669,158**	**771,090**	**782,207**	**742,760**	**(28,330)**	**-3.7%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	346,880	387,150	377,632	320,730	(66,420)	-17.2%
Benefits	129,050	154,340	154,190	142,260	(12,080)	-7.8%
Supplies/Equip	10,763	35,150	34,835	35,150	-	0.0%
Service/Charges	182,464	194,450	215,550	244,620	50,170	25.8%
Total Expenditures	669,158	771,090	782,207	742,760	(28,330)	-3.7%



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Administrative Director	-	-	1.00	1.00
Human Resources Manager	-	1.00	-	-
Information Technology Manager	-	1.00	1.00	1.00
Network IT Technician	-	1.00	1.00	-
Human Resources Analyst	-	1.00	1.00	1.00
Payroll & Benefits Coordinator	-	1.00	1.00	-
Human Resources Technician	-	-	-	1.00
Total Administrative Services		5.00	5.00	4.00

As of 2019 IT and HR positions are accounted for in the Administrative Services Department

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Human Resources						
Salary/Wages	154,106	155,970	155,970	157,560	1,590	1.0%
Personnel Benefits	56,982	68,890	68,890	73,660	4,770	6.9%
Office & Operating Supplies	5,504	5,150	4,800	5,150	-	
Small Tools & Equipment	1,878	-	-	-	-	
Professional Services	8,202	28,030	22,793	27,000	(1,030)	-3.7%
Communication	1,073	-	1,200	-	-	
Travel	8,397	1,950	1,200	3,900	1,950	100.0%
Taxes/Assessments	-	-	64	-	-	
Rent/Lease	212	100	1,291	-	(100)	-100.0%
Insurance	-	-	5,824	-	-	
Training and Other Charges	8,093	1,800	5,369	4,150	2,350	130.6%
Gas, Oil, & Fuel	26	20	20	20	-	
Repair/Maintenance	79	90	95	90	-	
Human Resources Total	**244,553**	**262,000**	**267,516**	**271,530**	**9,530**	**3.6%**
Information Technology						
Salary/Wages	151,243	173,000	173,000	105,320	(67,680)	-39.1%
Personnel Benefits	55,020	62,260	62,260	39,680	(22,580)	-36.3%
Office & Operating Supplies	483	1,030	1,030	1,030	-	
Small Tools & Equipment	2,839	28,840	28,840	28,840	-	
Professional Services	-	-	-	47,000	47,000	100.0%
Communication	4,104	4,120	4,120	4,120	-	
Rent/Lease	484	410	410	410	-	
Insurance	-	-	5,715	-	-	
Training and Other Charges	97	1,030	1,030	1,030	-	
Repair/Maintenance	20,405	18,430	18,436	18,430	-	
Gas, Oil, & Fuel	33	10	10	10	-	
Information Technology Total	**234,709**	**289,130**	**294,851**	**245,870**	**(43,260)**	**-15.0%**
Risk Management						
Salary/Wages	41,531	58,180	48,662	57,850	(330)	-0.6%
Personnel Benefits	17,049	23,190	23,040	28,920	5,730	24.7%
Office & Operating Supplies	-	100	135	100	-	
Travel	540	310	133	310	-	
Insurance	130,777	138,180	138,180	138,180	-	
Training and Other Charges	-	-	9,690	-	-	
Risk Management Total	**189,897**	**219,960**	**219,840**	**225,360**	**5,400**	**2.5%**
Total Expenditures	**669,158**	**771,090**	**782,207**	**742,760**	**(28,330)**	**-3.7%**

MISSION STATEMENT

The City Clerk acts as a liaison between the citizens of Shelton and their local government. The mission of the Clerk's office is to provide information to the public in a transparent, and professional manner. The Clerk's office also provides support to the City Manager and the Council.

DEPARTMENT SUMMARY

The Clerk's office manages the City's records and archives/retains/destroys records according to Washington State's records and retention schedule. We prepare the agenda and packet for Council meetings, publish legal notices, and codify City ordinances. We handle Special Event Permits and all aspects of the Lodging Tax Advisory Committee. The City Clerk is also the City's Public Records Officer and processes public records requests, (with the exception of the Police Department).

BUDGET HIGHLIGHTS

This is the first budget where the City Clerk activities are budgeted together. Previously the City Clerk was part of the City Council, City Manager, and Finance Departments budget and actuals. The increase of nearly 93% from the 2020 budget is attributed to budgetary costs for the Clerk in other budgets which could not readily be separated out by account. The City Clerk budget does not consist of any new positions or other increases other than inflationary and rate increases for salary and benefits.

FUNDING SOURCES

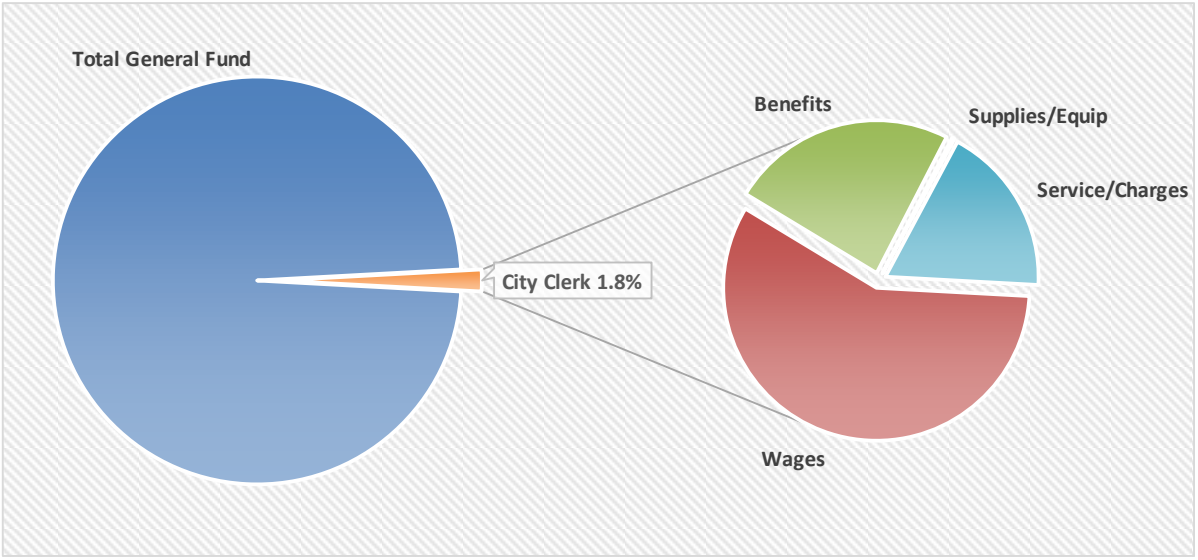
	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
General Fund Resources	**37,837**	**111,770**	**67,642**	**215,480**	**103,710**	**92.8%**

EXPENDITURES BY DIVISION

City Clerk	2,011	12,570	2,225	116,830	104,260	829.4%
Election Costs	5,651	19,570	20,803	20,060	490	2.5%
Recording Services	30,175	79,630	44,614	78,590	(1,040)	-1.3%
Total Expenditures	**37,837**	**111,770**	**67,642**	**215,480**	**103,710**	**92.8%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	16,019	50,510	30,324	124,550	74,040	146.6%
Benefits	10,258	22,610	12,298	51,480	28,870	127.7%
Supplies/Equip	4	520	250	520	-	0.0%
Service/Charges	11,556	38,130	24,770	38,930	800	2.1%
Total Expenditures	**37,837**	**111,770**	**67,642**	**215,480**	**103,710**	**92.8%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
City Clerk	-	-	-	1.00
Admin Support Assistant	-	-	-	1.00
Total City Clerk				**2.00**

As of 2021 City Clerk and Admin Support Assistant positions are accounted for in City Clerk Department

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
City Clerk						
Salary/Wages	-	-	-	73,230	73,230	100.0%
Personnel Benefits	-	-	-	30,720	30,720	100.0%
Professional Services	2,011	12,360	2,225	12,670	310	2.5%
Training and Other Charges	-	210	-	210	-	0.0%
City Clerk Total	**2,011**	**12,570**	**2,225**	**116,830**	104,260	829.4%
Election Costs						
Professional Services	5,651	19,570	20,803	20,060	490	2.5%
Election Costs Total	**5,651**	**19,570**	**20,803**	**20,060**	490	2.5%
Recording Services						
Salary/Wages	16,019	50,510	30,324	51,320	810	1.6%
Personnel Benefits	10,258	22,610	12,298	20,760	(1,850)	-8.2%
Office & Operating Supplies	4	520	250	520	-	0.0%
Communication	80	-	-	-	-	
Travel	1,868	4,350	195	4,350	-	0.0%
Rent/Lease	179	330	41	330	-	0.0%
Insurance	144	170	605	170	-	0.0%
Taxes/Assessments	9	-	1	-	-	
Training and Other Charges	1,615	1,140	900	1,140	-	0.0%
Recording Services Total	**30,175**	**79,630**	**44,614**	**78,590**	(1,040)	-1.3%
Total Expenditures	**37,837**	**111,770**	**67,642**	**215,480**	103,710	92.8%

MISSION STATEMENT

To build a safe, vibrant community for life, work, growth and recreation.

DEPARTMENT SUMMARY

The City Council members are the elected legislative body that serves and represents the residents of the City of Shelton in the following:

a) developing and prioritizing strategic issues;
b) establishing policies and regulations for future growth and development;
c) adopting the annual budget;
d) representing the City on regional boards and commissions;
e) appointing and evaluating performance of the City Manager

BUDGET HIGHLIGHTS

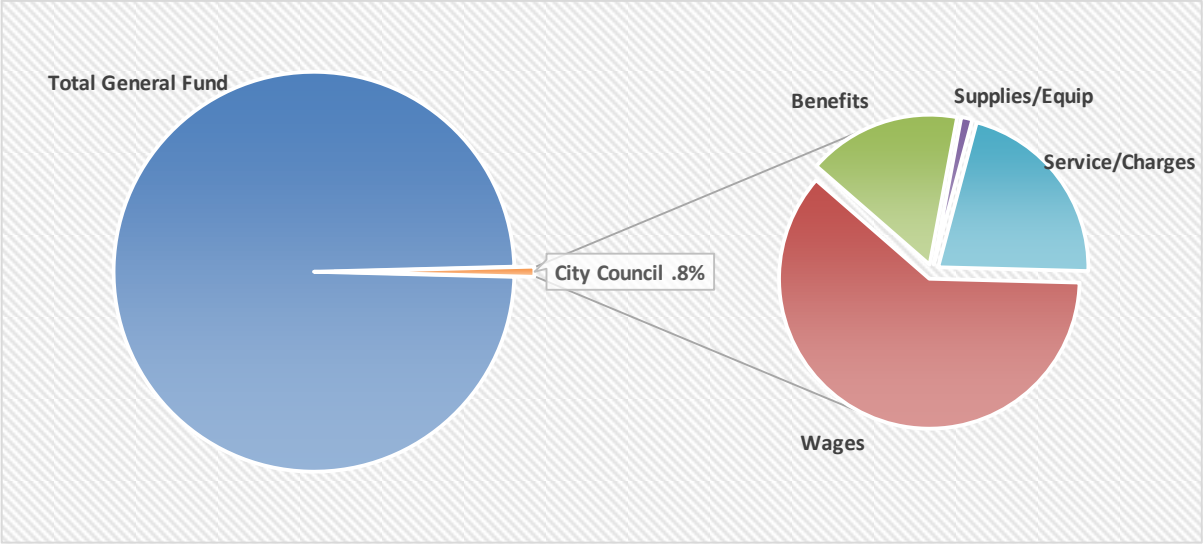
The City Council budget decreases by $66,420 or 39.8% from the 2020 budget. The decrease is attributable to the removal of City Clerk functions in the City Council budget. The budget includes changes for salary and benefits as well as a small inflationary increase for professional services.

FUNDING SOURCES

General Fund Resources	**231,757**	**167,050**	**148,325**	**100,630**	**(66,420)**	**-39.8%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	139,859	106,910	91,910	61,400	(45,510)	-42.6%
Benefits	70,733	37,910	41,829	16,620	(21,290)	-56.2%
Supplies/Equip	1,608	1,210	1,075	1,210	-	0.0%
Service/Charges	19,557	21,020	13,511	21,400	380	1.8%
Total Expenditures	231,757	167,050	148,325	100,630	(66,420)	-39.8%



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Councilmember (new Council position)	4.00	4.00	4.00	6.00
Councilmember (former Commission)	3.00	3.00	3.00	1.00
City Clerk	0.40	0.40	0.40	-
Admin Support Assistant	0.15	0.40	0.40	-
Total City Council	7.55	7.80	7.80	7.00

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
City Council						
Salary/Wages	139,859	106,910	91,910	61,400	(45,510)	-42.6%
Personnel Benefits	70,733	37,910	41,829	16,620	(21,290)	-56.2%
Office & Operating Supplies	585	1,030	1,000	1,030	-	
Small Tools & Equipment	896	-	-	-	-	
Professional Services	1,448	880	1,152	900	20	2.3%
Communication	4,827	8,240	5,000	8,240	-	
Travel	2,754	9,070	-	7,750	(1,320)	-14.6%
Taxes/Assessments	40	-	-	-	-	
Rent/Lease	2,079	1,800	500	2,000	200	11.1%
Insurance	-	-	5,285	-	-	
Training and Other Charges	8,019	620	1,216	2,100	1,480	238.7%
Gas, Oil, & Fuel	127	180	75	180	-	
Repair/Maintenance	390	410	358	410	-	
City Council Total	**231,757**	**167,050**	**148,325**	**100,630**	**(66,420)**	**-39.8%**

MISSION STATEMENT

The City Manager is appointed by the City Council as the chief administrative officer for the City of Shelton. The City Manager is responsible to the Mayor and Council for the proper administration of all City business.

DEPARTMENT SUMMARY

Key objectives include reporting and make recommendations to the Mayor and Council about the needs of the City. Administering and enforcing all City ordinances, resolutions, franchise agreements, leases, contracts, permits, and other City business. Organizing City department and administrative structure. Preparing and administering the annual City budget. Encouraging and supporting regional and intergovernmental cooperation. Promoting cooperation among the Council, staff and citizens in developing City policies and building a sense of community. Providing council and staff with leadership and advice while implementing best practices to achieve adopted goals and deliver quality services to the community. Administering economic development, and other special programs for the City.

BUDGET HIGHLIGHTS

The City Manager Department budget decreases by $207,440 or 14%. The significant factor for the is the reduction of two budget positions from 2020, the Homeless Resource Coordinator and Economic Development Coordinator. Those reductions were made as part of the City's COVID-19 response. The budget for the City Manager also includes the Legal and Detention and Corrections contracts budgets. Those are contracted amounts in which the City Manager has oversight.

FUNDING SOURCES

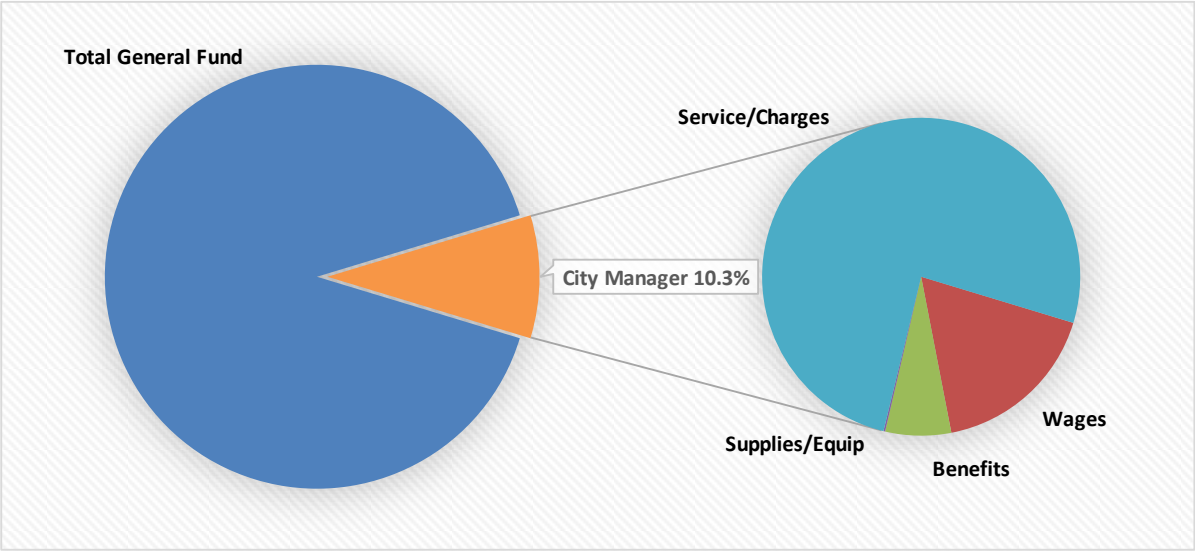
	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
General Fund Resources	**1,139,114**	**1,477,530**	**1,210,770**	**1,270,090**	**(207,440)**	**-14.0%**

EXPENDITURES BY DIVISION

City Manager	381,449	628,000	419,201	399,340	(228,660)	-36.4%
Legal	392,309	445,460	421,048	456,580	11,120	2.5%
Detention & Corrections	365,356	404,070	370,520	414,170	10,100	2.5%
Grand Total	**1,139,114**	**1,477,530**	**1,210,770**	**1,270,090**	**(207,440)**	**-14.0%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	215,719	356,990	261,473	219,340	(137,650)	-38.6%
Benefits	75,597	168,770	95,121	84,960	(83,810)	-49.7%
Supplies/Equip	409	3,860	2,506	2,170	(1,690)	-43.8%
Service/Charges	847,389	947,910	851,671	963,620	15,710	1.7%
Grand Total	**1,139,114**	**1,477,530**	**1,210,770**	**1,270,090**	**(207,440)**	**-14.0%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
City Manager	1.00	1.00	1.00	1.00
Communications & Econ Devel Officer	1.00	-	-	-
Communications Specialist	-	1.00	1.00	1.00
Economic Development Specialist	-	1.00	1.00	-
Homeless Resource Coordinator	-	-	1.00	-
Confidential Admin Assistant	0.85	-	-	-
City Clerk	-	0.20	0.20	-
Admin Support Assistant	0.85	0.20	0.20	-
Information Technology Director	1.00	-	-	-
Network IT Technician	1.00	-	-	-
Human Resources Manager	1.00	-	-	-
City Attorney	1.00	-	-	-
Assistant City Manager	0.90	-	-	-
Total City Manager	**8.60**	**3.40**	**4.40**	**2.00**

As of August 2019 IT and HR positions are accounted for in the Administrative Services Department
As of 2021 City Clerk and Admin Support Assistant positions are accounted for in City Clerk Department

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
City Manager						
Salary/Wages	215,719	356,990	261,473	219,340	(137,650)	-38.6%
Personnel Benefits	75,597	168,770	95,121	84,960	(83,810)	-49.7%
Office & Operating Supplies	409	3,140	2,006	1,450	(1,690)	-53.8%
Professional Services	62,483	69,300	20,402	65,000	(4,300)	-6.2%
Communication	1,095	820	1,176	1,000	180	22.0%
Travel	5,559	5,670	1,608	5,000	(670)	-11.8%
Rent/Lease	492	570	83	570	-	0.0%
Insurance	-	-	16,304	-	-	
Training and Other Charges	20,095	22,740	21,030	22,020	(720)	-3.2%
City Manager Total	**381,449**	**628,000**	**419,201**	**399,340**	**(228,660)**	**-36.4%**
Detention & Corrections						
Professional Services	**365,356**	**404,070**	**370,520**	**414,170**	**10,100**	**2.5%**
Legal						
Office & Operating Supplies	-	720	500	720	-	0.0%
Gas, Oil, & Fuel	-	-	-	-	-	
Professional Services	392,005	444,620	420,428	455,740	11,120	2.5%
Taxes/Assessments	1	-	-	-	-	
Rent/Lease	172	120	120	120	-	0.0%
Training and Other Charges	131	-	-	-	-	
Legal Total	**392,309**	**445,460**	**421,048**	**456,580**	**11,120**	**2.5%**
Grand Total	**1,139,114**	**1,477,530**	**1,210,770**	**1,270,090**	**(207,440)**	**-14.0%**

MISSION STATEMENT

Planning/Building: The Community Development Department will strive to bring the community's vision of Shelton to reality and proactively facilitate growth through sound planning principals and consistent code implementation and provide prompt, accurate, courteous customer service.

Parks and Recreation: The Parks and Recreation Department will serve to enrich lives by providing recreational opportunities through safe and inviting parks, trails, facilities, open space and by being good environmental stewards.

DEPARTMENT SUMMARY

Long Range Planning - Creating plans in cooperation with the community for guiding the growth and vision of Shelton.

Current Planning - Reviewing development applications for code compliance in accordance with the Shelton Municipal Code including environmental.

Building Permits - Reviewing structural and architectural plans to ensure a safe built community in compliance with Shelton Municipal Code.

Parks - Providing safe and inviting parks, trails, facilities and open space for enhanced quality of life.

Recreation Services - Building community and improving health through seasonal camps, classes and activities for all ages and demographics.

Facilities and Grounds - Maintain the City's infrastructure to ensure and safe and clean environment for all residents and visitors alike and the ensure community's assets are preserved.

BUDGET HIGHLIGHTS

The Community Development, Parks & Facilities Department budget increases by $73,260 or 4.4%. The budget is for the most part status quo and the increases are mostly attributed to small inflationary increases for professional services, COLA adjustments for salary costs, and rate increases for benefits.

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20

FUNDING SOURCES

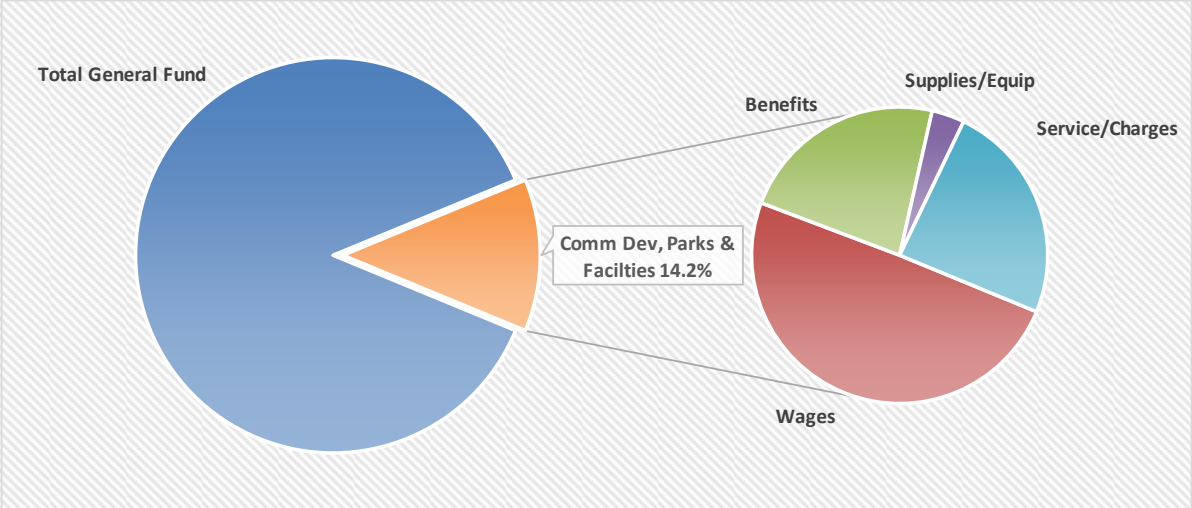
General Fund Resources	**1,544,736**	**1,671,860**	**1,521,276**	**1,745,120**	**73,260**	**4.4%**

EXPENDITURES BY DIVISION

Civic Center Activities	47,014	63,760	47,947	68,210	4,450	7.0%
Community Development	523,664	535,520	533,885	558,860	23,340	4.4%
Facility Services	563,586	514,830	536,854	542,600	27,770	5.4%
Parks & Recreation	410,472	557,750	402,590	575,450	17,700	3.2%
Total Expenditures	**1,544,736**	**1,671,860**	**1,521,276**	**1,745,120**	**73,260**	**4.4%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	730,973	820,720	783,652	864,400	43,680	5.3%
Benefits	318,363	370,500	331,665	397,690	27,190	7.3%
Supplies/Equip	82,763	62,990	57,997	62,470	(520)	-0.8%
Service/Charges	412,637	417,650	347,962	420,560	2,910	0.7%
Total Expenditures	1,544,736	1,671,860	1,521,276	1,745,120	73,260	4.4%



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Community Dev/Parks & Rec Director	0.99	1.00	1.00	1.00
Senior Planner	1.00	1.00	1.00	1.00
Building Official	1.00	1.00	1.00	1.00
Crew Lead Parks/Facilities	0.99	1.00	1.00	1.00
Recreation Coordinator	1.00	1.00	1.00	1.00
Assistant Crew Lead Parks/Facilities	0.95	1.00	1.00	1.00
Permit Coordinator	0.75	0.80	0.80	0.80
Maintenance Worker	1.99	2.00	3.00	3.00
Custodial Worker	2.00	2.00	2.00	2.00
Animal Control Tech/Code Enforce Officer	0.50	0.50	0.50	0.50
Sr Associate Civil Engineer	0.10	-	-	-
Associate Planner	0.55	-	-	-
Total Community Develop, Parks & Facilities	**11.82**	**11.30**	**12.30**	**12.30**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Civic Center Activities						
Community Center						
Salary/Wages	29,794	40,950	30,000	43,430	2,480	6.1%
Personnel Benefits	9,818	13,830	10,454	15,490	1,660	12.0%
Office & Operating Supplies	624	1,030	250	1,030	-	0.0%
Small Tools & Equipment	-	310	150	310	-	0.0%
Professional Services	-	520	50	530	10	1.9%
Insurance	-	-	1,127	-	-	
Taxes/Assessments	124	160	100	160	-	0.0%
Training and Other Charges	-	210	-	210	-	0.0%
Community Center Total	**40,360**	**57,010**	**42,131**	**61,160**	**4,150**	**7.3%**
Community Events						
Salary/Wages	2,678	3,000	3,000	3,200	200	6.7%
Personnel Benefits	1,103	1,160	1,166	1,260	100	8.6%
Office & Operating Supplies	2,869	1,030	950	1,030	-	0.0%
Rent/Lease	6	10	-	10	-	0.0%
Insurance	-	-	200	-	-	
Training and Other Charges	-	1,550	500	1,550	-	0.0%
Community Events Total	**6,655**	**6,750**	**5,816**	**7,050**	**300**	**4.4%**
Civic Center Activities Total	**47,014**	**63,760**	**47,947**	**68,210**	**4,450**	**7.0%**

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Community Development						
Code Enforcement						
Salary/Wages	45,037	50,820	50,000	54,250	3,430	6.7%
Personnel Benefits	19,436	22,080	20,428	23,360	1,280	5.8%
Office & Operating Supplies	-	100	500	100	-	0.0%
Professional Services	1,365	-	-	-	-	
Communication	1,241	-	-	-	-	
Travel	-	570	-	570	-	0.0%
Insurance	-	-	1,702	-	-	
Training and Other Charges	912	820	-	820	-	0.0%
Code Enforcement Total	**67,991**	**74,390**	**72,630**	**79,100**	**4,710**	**6.3%**
Economic Development					-	
Salary/Wages	8,340	8,750	8,600	9,290	540	6.2%
Personnel Benefits	3,656	3,880	3,875	4,240	360	9.3%
Professional Services	-	5,150	5,150	5,280	130	2.5%
Insurance	-	-	315	-	-	
Training and Other Charges	5,000	-	-	-	-	
Economic Development Total	**16,996**	**17,780**	**17,940**	**18,810**	**1,030**	**5.8%**
Health Services						
Taxes/Assessments	**2,768**	**3,610**	**1,500**	**3,610**	**-**	**0.0%**
Housing & Property Develop						
Salary/Wages	16,493	14,180	14,000	15,050	870	6.1%
Personnel Benefits	6,764	5,530	5,507	6,120	590	10.7%
Office & Operating Supplies	11,622	-	-	-	-	
Professional Services	3,083	-	-	-	-	
Insurance	-	-	623	-	-	
Housing & Property Develop Total	**37,961**	**19,710**	**20,130**	**21,170**	**1,460**	**7.4%**
Natural Resources					-	
Professional Services	**7,995**	**8,270**	**8,264**	**8,480**	**210**	**2.5%**
Permits and Plan Reviews						
Salary/Wages	156,416	172,280	157,342	173,440	1,160	0.7%
Personnel Benefits	63,684	73,380	70,210	78,670	5,290	7.2%
Office & Operating Supplies	3,831	1,130	500	1,130	-	0.0%
Small Tools & Equipment	1,271	1,550	500	1,550	-	0.0%
Professional Services	26,954	15,850	40,000	16,250	400	2.5%
Communication	694	720	700	720	-	0.0%
Travel	3,922	3,300	2,000	3,300	-	0.0%
Rent/Lease	14	-	28	-	-	
Insurance	72	80	6,053	80	-	0.0%
Training and Other Charges	5,044	1,810	1,050	1,810	-	0.0%
Gas, Oil, & Fuel	736	520	520	520	-	0.0%
Repair/Maintenance	2,676	3,300	2,440	3,300	-	0.0%
Permits and Plan Reviews Total	**265,314**	**273,920**	**281,343**	**280,770**	**6,850**	**2.5%**

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Planning						
Salary/Wages	79,353	83,910	83,910	88,680	4,770	5.7%
Personnel Benefits	33,397	35,050	34,225	39,080	4,030	11.5%
Office & Operating Supplies	1,512	3,100	2,727	3,100	-	0.0%
Small Tools & Equipment	-	720	-	720	-	0.0%
Professional Services	6,723	10,710	6,000	10,990	280	2.6%
Rent/Lease	2,840	2,880	1,600	2,880	-	0.0%
Insurance	-	-	3,056	-	-	
Training and Other Charges	640	1,250	350	1,250	-	0.0%
Repair/Maintenance	174	220	210	220	-	0.0%
Planning Total	**124,638**	**137,840**	**132,078**	**146,920**	**9,080**	**6.6%**
Community Development Total	**523,664**	**535,520**	**533,885**	**558,860**	**23,340**	**4.4%**
Facility Services						
Civic Center						
Office & Operating Supplies	13,288	12,460	12,600	12,460	-	0.0%
Small Tools & Equipment	432	410	400	410	-	0.0%
Professional Services	5,941	-	-	-	-	
Communication	15,484	22,660	24,000	22,660	-	0.0%
Rent/Lease	2,393	2,060	2,200	2,060	-	0.0%
Insurance	638	540	540	540	-	0.0%
Utilities	59,005	62,830	60,000	62,830	-	0.0%
Repair/Maintenance	66,303	27,300	24,500	27,300	-	0.0%
Training and Other Charges	610	400	590	400	-	0.0%
Civic Center Total	**164,094**	**128,660**	**124,830**	**128,660**	**-**	**0.0%**
Custodial & Maintenance						
Salary/Wages	226,727	207,320	213,500	221,920	14,600	7.0%
Personnel Benefits	116,254	107,570	111,940	121,180	13,610	12.7%
Office & Operating Supplies	3,292	2,580	4,000	2,580	-	0.0%
Small Tools & Equipment	-	520	150	-	(520)	-100.0%
Professional Services	134	-	-	-	-	
Communication	388	360	370	360	-	0.0%
Insurance	682	710	17,200	710	-	0.0%
Training and Other Charges	167	200	-	200	-	0.0%
Rent/Lease	2,068	2,190	1,670	2,190	-	0.0%
Repair/Maintenance	2,228	7,840	2,410	7,840	-	0.0%
Gas, Oil, & Fuel	1,070	900	800	900	-	0.0%
Custodial & Maintenance Total	**353,010**	**330,190**	**352,040**	**357,880**	**27,690**	**8.4%**
Library Facility						
Office & Operating Supplies	6,859	6,180	3,500	6,180	-	0.0%
Professional Services	1,320	3,090	3,400	3,170	80	2.6%
Communication	-	770	-	770	-	0.0%
Rent/Lease	-	-	158	-	-	
Insurance	-	-	4,662	-	-	
Utilities	24,673	28,840	20,000	28,840	-	0.0%
Repair/Maintenance	7,090	8,760	20,000	8,760	-	0.0%
Training and Other Charges	134	520	134	520	-	0.0%
Library Facility Total	**40,076**	**48,160**	**51,854**	**48,240**	**80**	**0.2%**

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Museum Facility						
Office & Operating Supplies	24806%	36000%	36000%	36000%	0%	0%
Professional Services	253	40	430	40	-	0.0%
Insurance	0%	0%	54000%	0%	0%	
Utilities	5,905	7,420	6,800	7,420	-	0.0%
Repair/Maintenance	0%	0%	0%	0%	0%	
Museum Facility Total	**6,406**	**7,820**	**8,130**	**7,820**	**-**	**0.0%**
Facility Services Total	**563,586**	**514,830**	**536,854**	**542,600**	**27,770**	**5.4%**
Parks & Recreation						
Parks Maintenance						
Salary/Wages	129,287	196,210	180,000	209,070	12,860	6.6%
Personnel Benefits	50,801	92,990	59,430	91,550	(1,440)	-1.5%
Office & Operating Supplies	19,628	13,390	13,610	13,390	-	0.0%
Small Tools & Equipment	2,276	3,090	3,000	3,090	-	0.0%
Professional Services	45,690	42,450	850	43,510	1,060	2.5%
Communication	59	-	-	-	-	
Travel	-	100	170	100	-	0.0%
Insurance	1,221	1,300	6,760	1,300	-	0.0%
Utilities	38,590	38,110	20,000	38,110	-	0.0%
Taxes/Assessments	47	-	-	-	-	
Training and Other Charges	1,369	720	700	720	-	0.0%
Intergovernmental	-	-	-	-	-	
Gas, Oil, & Fuel	3,933	4,120	4,000	4,120	-	0.0%
Rent/Lease	11,226	14,270	13,500	14,270	-	0.0%
Repair/Maintenance	13,144	29,870	15,020	29,870	-	0.0%
Parks Maintenance Total	**317,270**	**436,620**	**317,040**	**449,100**	**12,480**	**2.9%**
Recreation						
Salary/Wages	36,848	43,300	43,300	46,070	2,770	6.4%
Personnel Benefits	13,450	15,030	14,430	16,740	1,710	11.4%
Office & Operating Supplies	4,526	8,760	8,760	8,760	-	0.0%
Small Tools & Equipment	4,747	520	520	520	-	0.0%
Professional Services	17,179	29,660	8,260	30,400	740	2.5%
Communication	-	150	100	150	-	0.0%
Travel	-	520	-	520	-	0.0%
Rent/Lease	12,698	15,450	5,000	15,450	-	0.0%
Insurance	144	160	3,000	160	-	0.0%
Taxes/Assessments	397	-	-	-	-	
Training and Other Charges	3,031	6,700	1,500	6,700	-	0.0%
Gas, Oil, & Fuel	-	210	200	210	-	0.0%
Repair/Maintenance	183	670	480	670	-	0.0%
Recreation Total	**93,202**	**121,130**	**85,550**	**126,350**	**5,220**	**4.3%**
Parks & Recreation Total	**410,472**	**557,750**	**402,590**	**575,450**	**17,700**	**3.2%**
Total Expenditures	**1,544,736**	**1,671,860**	**1,521,276**	**1,745,120**	**73,260**	**4.4%**

MISSION STATEMENT

We are dependable stewards of public resources. Through integrity, expertise, and accountability we:

a) ensure confidence in the transparency of financial reporting;
b) ensure the safety and security of financial assets;
c) develop sound financial strategies for making business decisions;
d) interact respectfully and provide excellent service; and
e) provide accurate, clear, and concise information.

DEPARTMENT SUMMARY

The Finance Department serves both internal partners and external customers by providing a broad range of services and information. Core operational services include cash receipting, utility billing, accounts payable, and accounts receivable. The Finance Department is also responsible for accounting and financial reporting including the development of the annual budget, quarterly reporting, investments, and the City's annual financial statements and report.

BUDGET HIGHLIGHTS

The Finance Department budget decreases by $33,820 or 3.2%. The reduction is largely due to the elimination of 1FTE as a result of COVID-19 offset by inflationary, COLA. And rate increases for professional services and labor.

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20

FUNDING SOURCES

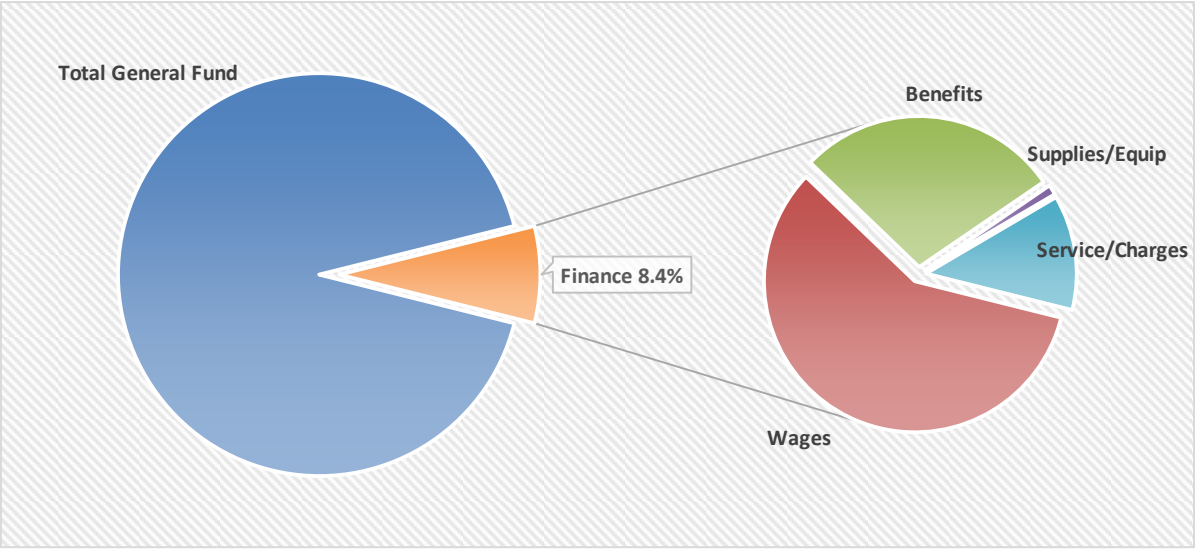
General Fund Resources	**933,224**	**1,068,890**	**980,965**	**1,035,070**	**(33,820)**	**-3.2%**

EXPENDITURES BY DIVISION

Accounting	591,802	660,970	641,305	654,340	(6,630)	-1.0%
Utility Billing	341,422	407,920	339,660	380,730	(27,190)	-6.7%
Total Expenditures	**933,224**	**1,068,890**	**980,965**	**1,035,070**	**(33,820)**	**-3.2%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	521,773	633,430	546,300	603,230	(30,200)	-4.8%
Benefits	246,112	298,060	265,450	292,980	(5,080)	-1.7%
Supplies/Equip	5,529	11,270	9,225	11,270	-	0.0%
Service/Charges	159,811	126,130	159,990	127,590	1,460	1.2%
Total Expenditures	**933,224**	**1,068,890**	**980,965**	**1,035,070**	**(33,820)**	**-3.2%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Finance Director	1.00	1.00	1.00	1.00
Accounting Manager	1.00	1.00	1.00	1.00
Finance Specialist	-	1.00	1.00	1.00
Staff Accountant	4.00	3.00	3.00	-
Accounting Assistant	-	1.00	1.00	0.00
Customer Service Specialist	2.75	2.00	2.00	2.00
City Clerk	0.50	0.40	0.40	-
Permit Coordinator	0.05	0.05	0.05	0.05
Admin Support Assistant	0.15	0.40	0.40	-
Accountant Analyst	1.00	-	-	3.00
Payroll & Benefits Coordinator		-	-	-
Assistant City Manager	0.05	-	-	-
Confidential Admin Assistant	0.15	-	-	-
Total Finance	**10.65**	**9.85**	**9.85**	**8.05**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Accounting						
Salary/Wages	323,171	392,080	351,200	382,830	(9,250)	-2.4%
Personnel Benefits	141,586	170,700	160,550	172,020	1,320	0.8%
Office & Operating Supplies	2,323	6,180	6,000	6,180	-	0.0%
Small Tools & Equipment	-	1,440	700	1,440	-	0.0%
Professional Services	114,468	82,660	102,750	83,960	1,300	1.6%
Communication	1,119	490	1,200	490	-	0.0%
Travel	1,241	2,370	750	2,370	-	0.0%
Taxes/Assessments	-	-	300	-	-	
Rent/Lease	4,569	2,880	4,500	2,880	-	0.0%
Insurance	-	-	12,220	-	-	
Training and Other Charges	3,124	1,340	1,000	1,340	-	0.0%
Repair/Maintenance	152	790	110	790	-	0.0%
Gas, Oil, & Fuel	49	40	25	40	-	0.0%
Accounting Total	**591,802**	**660,970**	**641,305**	**654,340**	**(6,630)**	**-1.0%**
Utility Billing						
Salary/Wages	198,602	241,350	195,100	220,400	(20,950)	-8.7%
Personnel Benefits	104,526	127,360	104,900	120,960	(6,400)	-5.0%
Office & Operating Supplies	3,156	3,610	2,500	3,610	-	0.0%
Professional Services	7,365	6,440	7,000	6,600	160	2.5%
Communication	24,977	25,750	20,000	25,750	-	0.0%
Travel	-	520	300	520	-	0.0%
Rent/Lease	1,055	1,030	500	1,030	-	0.0%
Insurance	-	-	7,510	-	-	
Repair/Maintenance	787	1,030	1,650	1,030	-	0.0%
Training and Other Charges	953	830	200	830	-	0.0%
Utility Billing Total	**341,422**	**407,920**	**339,660**	**380,730**	**(27,190)**	**-6.7%**
Total Expenditures	**933,224**	**1,068,890**	**980,965**	**1,035,070**	**(33,820)**	**-3.2%**

MISSION STATEMENT

Central Mason Fire & EMS is committed to the preservation of life, health, property, and the environment through extensive training, community outreach, and a dedication to excellence.

DEPARTMENT SUMMARY

The City contracts with Central Mason Fire & EMS (CMFE) to provide fire and emergency medical services to the City of Shelton. Central Mason Fire & EMS is the largest and busiest in Mason County as well as one of the busiest on the Olympic Peninsula. Through mutual-aid agreements CMFE provides primary advanced life support services to the majority of Mason County.

BUDGET HIGHLIGHTS

The Fire & Emergency Services Department budget increases by $2,370 or 0.2%. The City and Central Mason Fire and EMS are currently in the final stages of negotiating a new interlocal agreement (ILA) for Fire and EMS services. The annual expenditure for the City for Fire & EMS Services is based on the City's assessed value and Fire District rates as determined by the Mason County Assessor's Office. However, the proposed ILA removes a $50,000 per year charge for Fire Marshall services.

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20

FUNDING SOURCES

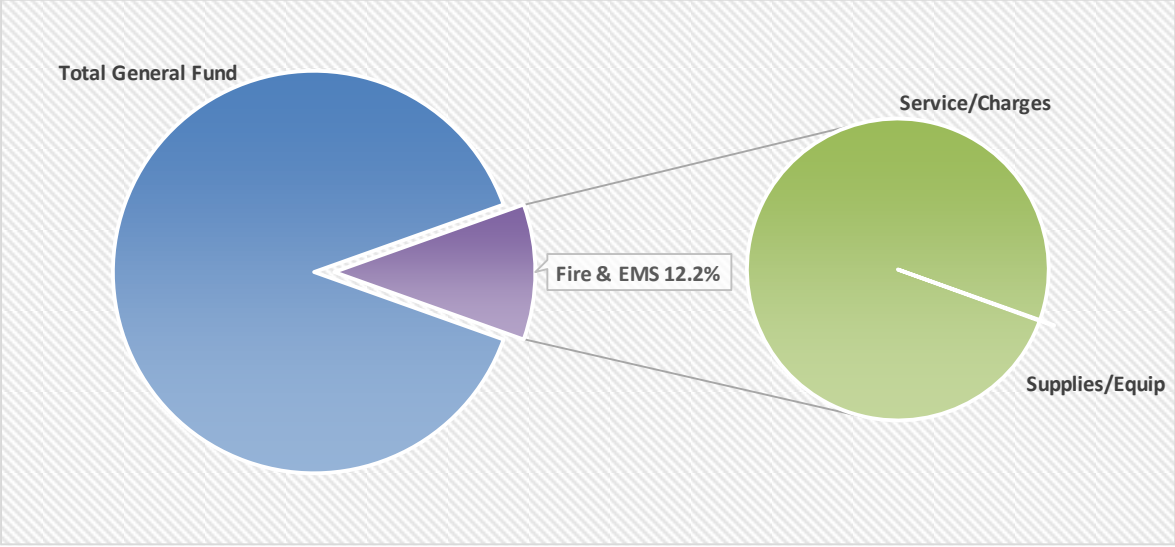
General Fund Resources	**1,447,313**	**1,498,880**	**1,512,125**	**1,501,250**	**2,370**	**0.2%**

EXPENDITURES BY DIVISION

Facilities	30,737	25,880	26,561	25,890	10	0.0%
Fire/EMS	1,416,576	1,473,000	1,485,564	1,475,360	2,360	0.2%
Total Expenditures	**1,447,313**	**1,498,880**	**1,512,125**	**1,501,250**	**2,370**	**0.2%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Supplies/Equip	3,380	1,240	1,240	1,240	-	0.0%
Service/Charges	1,443,933	1,497,640	1,510,885	1,500,010	2,370	0.2%
Total Expenditures	1,447,313	1,498,880	1,512,125	1,501,250	**2,370**	**0.2%**



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Fire Facilities						
Office & Operating Supplies	2,647	1,240	1,240	1,240	-	0.0%
Small Tools & Equipment	733	-	-	-	-	
Professional Services	1,760	210	1,101	220	10	4.8%
Communication	2,025	3,610	3,610	3,610	-	0.0%
Utilities	1,950	1,550	1,550	1,550	-	0.0%
Repair/Maintenance	21,287	19,060	19,060	19,060	-	0.0%
Training and Other Charges	335	210	-	210	-	0.0%
Fire Facilities Total	**30,737**	**25,880**	**26,561**	**25,890**	**10**	**0.0%**
Fire/EMS						
Professional Services	1,291,576	1,344,250	1,349,250	1,346,610	2,360	0.2%
Insurance	-	-	7,564	-	-	
Utilities	125,000	128,750	128,750	128,750	-	0.0%
Fire/EMS Total	**1,416,576**	**1,473,000**	**1,485,564**	**1,475,360**	**2,360**	**0.2%**
Total Expenditures	**1,447,313**	**1,498,880**	**1,512,125**	**1,501,250**	**2,370**	**0.2%**

MISSION STATEMENT

The Municipal Court is an independent branch of government constitutionally entrusted with the fair and just resolution of disputes in order to preserve the rule of the law and to protect the rights and liberties guaranteed by the Constitution and laws of the United States, Washington State, and the City of Shelton.

DEPARTMENT SUMMARY

The Court must not only be fair, but also avoid even the appearance of unfairness, which is why we adhere to the Code of Judicial Conduct and provide open records and proceedings. Judicial independence requires that we follow the law and make decisions that we believe are correct, fair and just, even though those decisions may be unpopular. There shall be equal treatment for all, regardless of race, gender, ethnicity, religion, wealth, physical abilities, sexual orientation, or any other legally protected status. The Court shall maintain the independence of the Judiciary while strengthening relations with the public, the bar, and the other branches of government. The Court shall acknowledge and enhance the potential of every person in our organization to contribute to the administration of justice through participation, training and technology. The Court recognizes that everyone is different and unique and will strive to embolden a holistic and restorative criminal justice model within the confines of the law.

BUDGET HIGHLIGHTS

The Municipal Court budget increases by $31,810 or 5.9%. The budget includes a COLA adjustment and benefit costs increases due to rate changes.

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20

FUNDING SOURCES

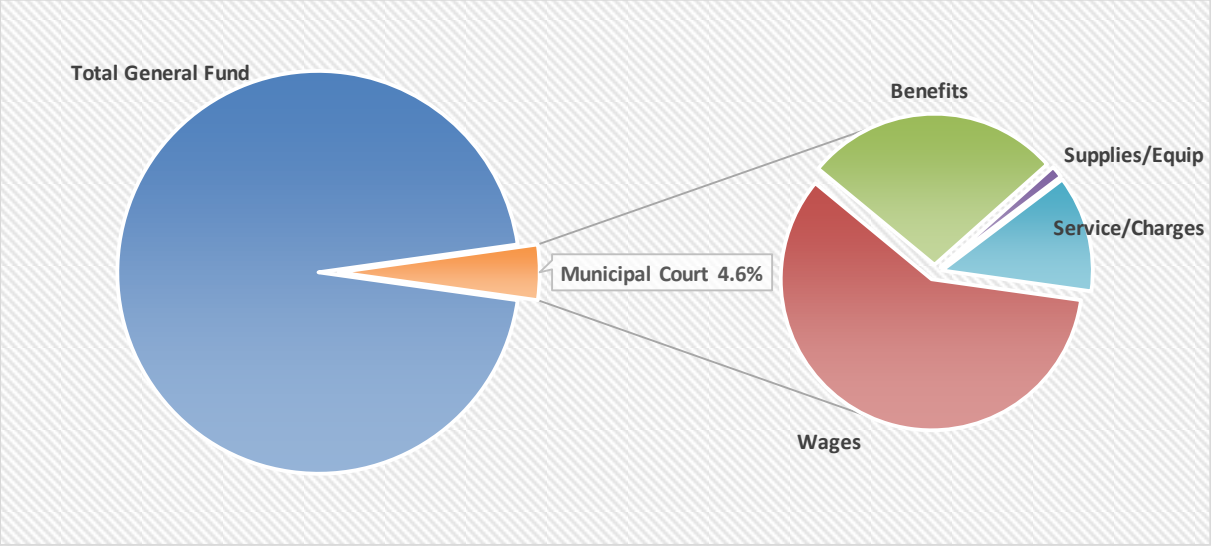
General Fund Resources	**462,291**	**536,640**	**518,247**	**568,450**	**31,810**	**5.9%**

EXPENDITURES BY DIVISION

Community Restitution	95,788	116,290	107,665	122,390	6,100	5.2%
Court Services	366,503	420,350	410,582	446,060	25,710	6.1%
Total Expenditures	**462,291**	**536,640**	**518,247**	**568,450**	**31,810**	**5.9%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	284,550	317,320	313,320	334,050	16,730	5.3%
Benefits	124,397	142,050	142,050	156,010	13,960	9.8%
Supplies/Equip	9,227	7,340	6,170	7,340	-	0.0%
Service/Charges	44,117	69,930	56,707	71,050	1,120	1.6%
Total Expenditures	**462,291**	**536,640**	**518,247**	**568,450**	**31,810**	**5.9%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Municipal Judge	0.50	0.50	0.50	0.50
Court Administrator	1.00	1.00	1.00	1.00
Community Services Supervisor	1.00	1.00	1.00	1.00
Legal Process Assistant	2.00	2.00	2.00	2.00
Total Municipal Court	4.50	4.50	4.50	4.50

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Community Restitution						
Salary/Wages	57,921	62,970	62,970	66,790	3,820	6.1%
Personnel Benefits	29,320	34,290	34,290	36,410	2,120	6.2%
Office & Operating Supplies	525	310	310	310	-	0.0%
Small Tools & Equipment	1,073	1,550	1,550	1,550	-	0.0%
Professional Services	130	6,180	500	6,340	160	2.6%
Communication	-	720	720	720	-	0.0%
Insurance	144	160	2,189	160	-	0.0%
Training and Other Charges	18	520	120	520	-	0.0%
Rent/Lease	2,071	2,400	451	2,400	-	0.0%
Repair/Maintenance	3,821	6,360	4,065	6,360	-	0.0%
Gas, Oil, & Fuel	764	830	500	830	-	0.0%
Community Restitution Total	**95,788**	**116,290**	**107,665**	**122,390**	**6,100**	**5.2%**
Court Services						
Salary/Wages	226,629	254,350	250,350	267,260	12,910	5.1%
Personnel Benefits	95,077	107,760	107,760	119,600	11,840	11.0%
Office & Operating Supplies	4,068	3,610	3,610	3,610	-	0.0%
Small Tools & Equipment	2,796	1,040	200	1,040	-	0.0%
Professional Services	23,986	38,330	30,000	39,290	960	2.5%
Communication	1,713	1,240	1,800	1,240	-	0.0%
Travel	4,434	4,640	100	4,640	-	0.0%
Taxes/Assessments	-	-	468	-		
Rent/Lease	6,681	8,040	6,700	8,040	-	0.0%
Insurance	-	-	8,564	-	-	
Repair/Maintenance	-	310	-	310	-	0.0%
Training and Other Charges	1,121	1,030	1,030	1,030	-	0.0%
Court Services Total	**366,503**	**420,350**	**410,582**	**446,060**	**25,710**	**6.1%**
Total Expenditures	**462,291**	**536,640**	**518,247**	**568,450**	**31,810**	**5.9%**

DEPARTMENT SUMMARY

The non-departmental classification is used to account for activities that are not the function of a specific department in the general fund.

BUDGET HIGHLIGHTS

The 2021 Proposed budget includes:

- $135,760 for debt obligations on the 2011 LTGO for the Fire Station;
- $164,800 to fully fund the obligations of the Payroll Benefits Fund (see Payroll Benefits Fund page for more information);
- $121,220 to fully fund the obligations of the Fireman's Pension Fund (see Fireman's Pension Fund page for more information);
- $570,000 as supplemental funding for on-going street operations;
- $41,000 for the annual subscription for the OpenGov system; and,
- $21,510 for principal and interest payments related to the HVAC lease.

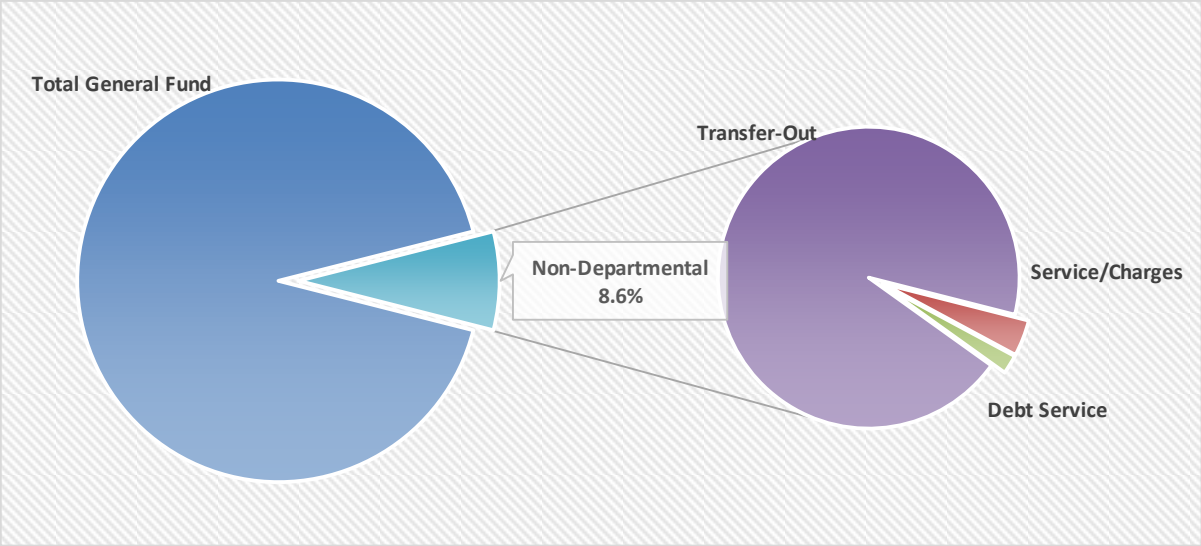
	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20

FUNDING SOURCES

General Fund Resources	**2,519,557**	**1,212,580**	**1,278,973**	**1,054,290**	**(158,290)**	**-13.1%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Service/Charges	24,958	40,000	50,000	41,000	1,000	2.5%
Capital	480,606	24,210	329,230	-	(24,210)	-100.0%
Debt Service	21,494	21,500	21,493	21,510	10	0.0%
Transfer-Out	1,992,498	1,126,870	878,250	991,780	(135,090)	-12.0%
Total Expenditures	**2,519,557**	**1,212,580**	**1,278,973**	**1,054,290**	**(158,290)**	**-13.1%**



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Non-Departmental						
Professional Services	24,958	40,000	50,000	41,000	1,000	2.5%
Capital	480,606	24,210	329,230	-	(24,210)	-100.0%
Debt Principal	17,168	18,050	18,048	18,980	930	5.2%
Debt Interest	4,326	3,450	3,445	2,530	(920)	-26.7%
Transfer-Out	1,992,498	1,126,870	878,250	991,780	(135,090)	-12.0%
Total Expenditures	**2,519,557**	**1,212,580**	**1,278,973**	**1,054,290**	**(158,290)**	**-13.1%**

MISSION STATEMENT

The Mission of the Shelton Police Department (SPD) is to provide excellent service and protection through leadership and partnership with the community. All decisions reflect this Mission and coincide with our core values of Loyalty, Dedication, Respect, Service, Honor, Integrity, and Personal Courage.

DEPARTMENT SUMMARY

SPD is comprised of Administration, Patrol, Detectives, School Resource Officers, Records/Evidence, Animal Control/Code Enforcement and Volunteers. Police officers in the 21st century wear many different hats that their professional predecessors didn't. With more legal mandates and responsibilities, also come un-funded training requirements. In 2020, SPD will continue its endeavor to have the most professional, well educated, and trained police force for the community we serve. This will require up to date training in use of force, de-escalation, crisis intervention, patrol tactics, officer wellness, and emergency vehicle operations. Training will be a 2020 budget priority.

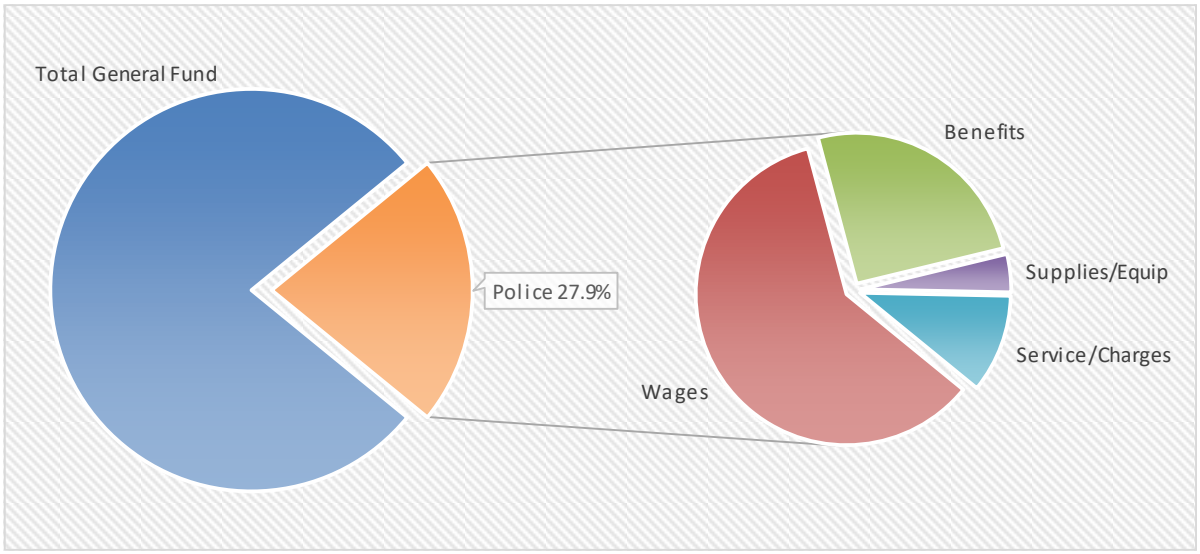
BUDGET HIGHLIGHTS

The budget for the Police Department in 2021 increases by $298,170 or 9.5%. The budget includes a reduction of 1FTE School Resource Officer (SRO) due to the current closure of the School District. The City is hopeful that once the schools open, the contract with the School District will be put back in place and the position funded. Other changes include salary and benefit increases for COLA adjustments and medical, dental, and other rate increases.

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
FUNDING SOURCES						
Law Enforcement Services	294,384	310,600	35000	21900	(288,700)	-92.9%
General Fund Resources	2,777,648	2,813,510	3,297,761	3,400,380	586,870	20.9%
General Fund Resources	**3,072,032**	**3,124,110**	**3,332,761**	**3,422,280**	**298,170**	**9.5%**
EXPENDITURES BY DIVISION						
Administration	288,220	305,040	238,707	170,260	(134,780)	-44.2%
Animal Control	61,143	58,800	69,115	74,680	15,880	27.0%
Investigations	242,786	261,200	282,081	573,720	312,520	119.6%
Patrol	1,948,866	1,940,425	2,270,985	2,253,660	313,235	16.1%
Records	135,658	161,030	152,663	164,460	3,430	2.1%
SRO	354,101	350,225	297,777	138,110	(212,115)	-60.6%
Training	41,257	47,390	21,434	47,390	-	0.0%
Total Expenditures	**3,072,032**	**3,124,110**	**3,332,761**	**3,422,280**	**298,170**	**9.5%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	1,900,385	1,863,910	1,981,962	2,052,390	188,480	10.1%
Benefits	689,167	763,110	794,101	867,850	104,740	13.7%
Supplies/Equip	140,623	140,120	168,800	140,120	-	0.0%
Service/Charges	341,857	356,970	387,898	361,920	4,950	1.4%
Total Expenditures	**3,072,032**	**3,124,110**	**3,332,761**	**3,422,280**	**298,170**	**9.5%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Police Chief	1.00	1.00	1.00	1.00
Police Captain	-	1.00	-	-
Sergeant - Detective	-	1.00	1.00	1.00
Sergeant - Patrol	2.00	2.00	2.00	2.00
Detective	1.00	1.00	1.00	1.00
Corporal Officer - Patrol (SRO)	2.00	1.00	1.00	1.00
Police Officer	8.00	10.00	10.00	11.00
School Resource Officer	2.00	2.00	2.00	0.00
Evidence Records Clerk	2.00	2.00	2.00	2.00
Animal Control Tech/Code Enforce Officer	0.50	0.50	0.50	0.50
Detective Corporal	1.00	-	-	-
Lieutenant	1.00	-	2.00	2.00
Total Police Department	**20.50**	**21.50**	**22.50**	**21.50**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Administration						
Salary/Wages	221,340	233,050	173,903	128,040	(105,010)	-45.1%
Personnel Benefits	66,880	71,990	56,351	42,220	(29,770)	-41.4%
Insurance	-	-	8,453	-	-	
Administration Total	**288,220**	**305,040**	**238,707**	**170,260**	**(134,780)**	**-44.2%**
Animal Control						
Salary/Wages	31,544	32,210	43,127	46,450	14,240	44.2%
Personnel Benefits	13,378	15,220	15,425	16,830	1,610	10.6%
Office & Operating Supplies	4,104	750	400	750	-	0.0%
Small Tools & Equipment	-	210	-	210	-	0.0%
Professional Services	2,281	1,030	1,300	1,060	30	2.9%
Communication	798	930	300	930	-	0.0%
Travel	2,272	1,550	-	1,550	-	0.0%
Rent/Lease	-	-	25	-	-	
Utilities	6,624	5,150	7,939	5,150	-	0.0%
Repair/Maintenance	-	1,240	600	1,240	-	0.0%
Training and Other Charges	75	410	-	410	-	0.0%
Gas, Oil, & Fuel	66	100	-	100	-	0.0%
Animal Control Total	**61,143**	**58,800**	**69,115**	**74,680**	**15,880**	**27.0%**

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Investigations						
Salary/Wages	179,203	189,290	201,379	408,290	219,000	115.7%
Personnel Benefits	63,583	71,910	73,798	165,430	93,520	130.1%
Insurance	-	-	6,904	-	-	
Investigations Total	**242,786**	**261,200**	**282,081**	**573,720**	**312,520**	**119.6%**
Patrol						
Salary/Wages	1,114,779	1,062,320	1,266,804	1,272,110	209,790	19.7%
Personnel Benefits	409,086	439,775	508,552	538,300	98,525	22.4%
Office & Operating Supplies	71,965	45,320	78,000	45,320	-	0.0%
Small Tools & Equipment	3,898	14,420	17,500	14,420	-	0.0%
Professional Services	194,865	196,740	191,100	201,660	4,920	2.5%
Communication	22,465	18,540	14,000	18,540	-	0.0%
Travel	42	1,030	100	1,030	-	0.0%
Taxes/Assessments	-	-	300	-	-	
Rent/Lease	9,993	12,360	12,360	12,360	-	0.0%
Insurance	8,831	9,320	66,069	9,320	-	0.0%
Repair/Maintenance	32,851	49,440	32,000	49,440	-	0.0%
Training and Other Charges	21,465	22,660	17,500	22,660	-	0.0%
Gas, Oil, & Fuel	58,627	68,500	66,700	68,500	-	0.0%
Patrol Total	**1,948,866**	**1,940,425**	**2,270,985**	**2,253,660**	**313,235**	**16.1%**
Records					-	
Salary/Wages	89,237	97,480	96,000	101,290	3,810	3.9%
Personnel Benefits	46,421	63,550	53,290	63,170	(380)	-0.6%
Insurance	-	-	3,373	-	-	
Records Total	**135,658**	**161,030**	**152,663**	**164,460**	**3,430**	**2.1%**
SRO						
Salary/Wages	264,282	249,560	200,749	96,210	(153,350)	-61.4%
Personnel Benefits	89,819	100,665	86,687	41,900	(58,765)	-58.4%
Insurance	-	-	10,341	-	-	
SRO Total	**354,101**	**350,225**	**297,777**	**138,110**	**(212,115)**	**-60.6%**
Training						
Office & Operating Supplies	1,171	9,270	5,000	9,270	-	0.0%
Gas, Oil, & Fuel	793	1,550	1,200	1,550	-	0.0%
Travel	25,076	17,720	4,894	17,720	-	0.0%
Training and Other Charges	14,217	18,850	10,340	18,850	-	0.0%
Training Total	**41,257**	**47,390**	**21,434**	**47,390**	**-**	**0.0%**
Total Expenditures	**3,072,032**	**3,124,110**	**3,332,761**	**3,422,280**	**298,170**	**9.5%**

MISSION STATEMENT

Shelton Public Works is dedicated to excellence, integrity and stewardship. We enhance the safety, welfare, and livability of the community by providing and managing reliable infrastructure and services for transportation, water, stormwater, and wastewater systems.

DEPARTMENT SUMMARY

The Public Works Department is responsible for the maintenance and improvement of the City's infrastructure, including streets, sidewalks, water service, wastewater treatment, storm drainage, and fleet/equipment. These systems that serve the public focus on transportation and mobility, water treatment/delivery, storm water quality/quantity, and wastewater collection/disposal.

The Water, Sewer, Storm Drainage, and Solid Waste funds are enterprise funds and are discussed further in the proprietary fund section. The Public Works Division within the General Fund include Administration and Engineering

BUDGET HIGHLIGHTS

The Public Works 2021 Budget reflects a decrease of $21,790 or 3.4%. The decrease is primarily due to the reduction of 1FTE due to the COVID-19 impact on revenue generation. The reduction is offset by increases for labor costs and professional service contracts.

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20

FUNDING SOURCES

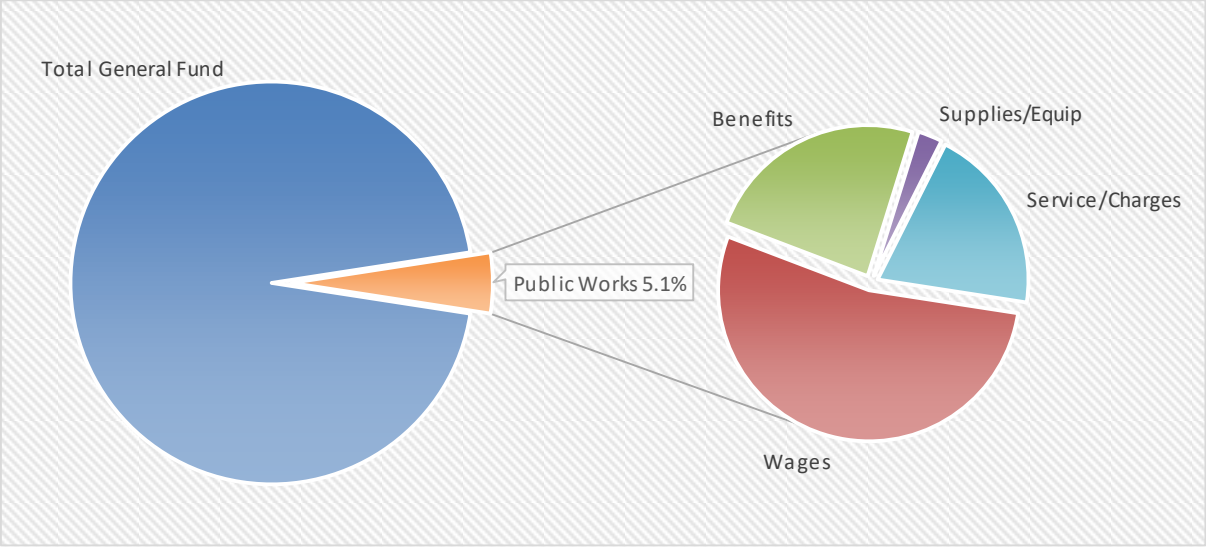
General Fund Resources	**737,915**	**650,290**	**708,907**	**628,500**	**(21,790)**	**-3.4%**

EXPENDITURES BY DIVISION

Administration	285,315	295,800	260,794	327,520	31,720	10.7%
Engineering	452,601	354,490	448,113	300,980	(53,510)	-15.1%
Total Expenditures	**737,915**	**650,290**	**708,907**	**628,500**	**(21,790)**	**-3.4%**

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	400,633	398,590	323,382	335,270	(63,320)	-15.9%
Benefits	158,132	157,990	128,410	151,040	(6,950)	-4.4%
Supplies/Equip	12,156	16,280	14,109	16,380	100	0.6%
Service/Charges	166,995	77,430	243,006	125,810	48,380	62.5%
Total Expenditures	**737,915**	**650,290**	**708,907**	**628,500**	**(21,790)**	**-3.4%**



STAFFING

		2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Public Works Director		1.00	1.00	1.00	1.00
City Engineer		-	1.00	0.50	0.50
PW Superintendent		2.00	-	-	-
Civil Engineer	0	1.00	-	-	-
Sr Associate Civil Engineer		0.90	1.00	1.00	1.00
Associate Civil Engineer		2.00	1.00	-	-
Engineering Technician		1.00	1.00	1.00	-
Administrative Manager		1.00	1.00	1.00	1.00
Projects & Purchasing Coodinator		1.00	-	-	-
Permit Coordinator		0.10	0.10	0.10	0.10
Total Public Works		**10.00**	**6.10**	**4.60**	**3.60**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Administration						
Salary/Wages	183,838	197,200	171,615	203,490	6,290	3.2%
Personnel Benefits	85,316	81,710	65,408	98,080	16,370	20.0%
Office & Operating Supplies	1,792	2,580	2,580	2,580	-	0.0%
Gas, Oil, & Fuel	-	50	50	150	100	200.0%
Small Tools & Equipment	4,403	5,150	5,150	5,150	-	0.0%
Professional Services	1,155	2,060	1,641	9,000	6,940	336.9%
Communication	5,477	4,270	4,270	4,270	-	0.0%
Travel	-	1,030	1,030	2,000	970	94.2%
Rent/Lease	41	-	42	80	80	
Insurance	-	-	6,951	-	-	
Training and Other Charges	3,294	1,750	2,057	2,720	970	55.4%
Administration Total	**285,315**	**295,800**	**260,794**	**327,520**	**31,720**	**10.7%**
Engineering						
Salary/Wages	216,796	201,390	151,767	131,780	(69,610)	-34.6%
Personnel Benefits	72,816	76,280	63,002	52,960	(23,320)	-30.6%
Office & Operating Supplies	1,889	3,090	2,779	3,090	-	0.0%
Small Tools & Equipment	-	1,550	1,550	1,550	-	0.0%
Professional Services	132,947	52,930	200,000	79,500	26,570	50.2%
Travel	-	520	520	2,200	1,680	323.1%
Taxes/Assessments	240	-	77	-	-	
Insurance	179	200	8,427	200	-	0.0%
Training and Other Charges	4,406	460	618	6,460	6,000	1304.3%
Rent/Lease	3,235	3,090	1,528	3,090	-	0.0%
Gas, Oil, & Fuel	4,072	3,860	2,000	3,860	-	0.0%
Repair/Maintenance	16,021	11,120	15,845	16,290	5,170	46.5%
Engineering Total	**452,601**	**354,490**	**448,113**	**300,980**	**(53,510)**	**-15.1%**
Total Expenditures	**737,915**	**650,290**	**708,907**	**628,500**	**(21,790)**	**-3.4%**

MISSION STATEMENT

To provide and maintain streets and sidewalks within the City of Shelton that allow for safe and efficient transportation.

DEPARTMENT SUMMARY

The Street department is responsible for constructing and maintaining transportation and mobility assets including roadways, alleys and right of ways within the City of Shelton. Maintenance includes patching, paving, grading gravel roads and parking strips, crack sealing, chip sealing, roadside mowing, street sweeping and pedestrian path maintenance.

BUDGET HIGHLIGHTS

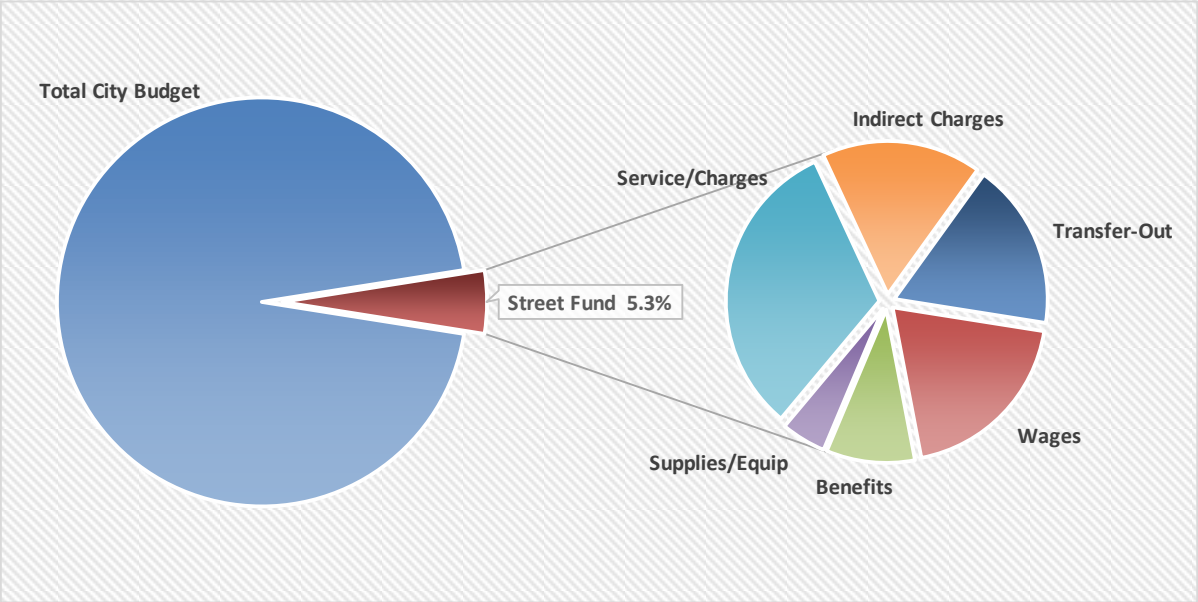
The Street Fund budget for 2021 decreases by $211,460 or 9.3%. The budget reduction is significantly due to a reduction of Street resources being transferred for Capital Projects. Much of those decreases are offset by an increase in expense in the Capital Resources fund for capital projects. The budget also includes monies for a quarter of the costs related to the new Development Review Technician. The General Fund supports Street Fund activities in the amount of $570,000 for 2021.

STREET FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**-**	**1,355,206**	**1,355,206**	**1,147,686**		
FUNDING SOURCES						
Taxes	685,810	582,520	582,520	582,520	-	
Licenses & Permits	6,805	6,000	5,000	6,000	-	
Intergovernmental Revenue	227,816	241,490	194,000	213,000	(28,490)	-11.8%
Charges for Goods/Service	53,888	60,000	50,000	53,000	(7,000)	-11.7%
Miscellaneous Revenue	27,127	16,000	-	12,000	(4,000)	-25.0%
Transfer In	1,527,349	570,000	570,000	570,000	-	
Total Revenues	**2,528,794**	**1,476,010**	**1,401,520**	**1,436,520**	(39,490)	-2.7%
EXPENDITURES BY DIVISION						
Maint Adm & Overhead	508,365	707,990	653,315	726,500	18,510	2.6%
Parking Facilities	423	1,090	1,090	1,090	-	
Roadside	142,131	134,780	130,005	142,970	8,190	6.1%
Roadway	224,769	180,220	138,828	218,840	38,620	21.4%
Sidewalks	20,563	11,590	5,210	11,590	-	
Snow and Ice Control	66,099	49,800	14,800	14,060	(35,740)	-71.8%
Special Purpose Paths	104	10,300	5,000	10,300	-	
Street Cleaning	6,415	1,890	13,681	22,760	20,870	1104.2%
Street Lighting	127,460	125,000	145,000	125,000	-	
Traffic Control Devices	77,269	82,990	102,112	103,840	20,850	25.1%
Transfer-Out	-	975,000	400,000	692,240	(282,760)	-29.0%
Total Expenditures	**1,173,598**	**2,280,650**	**1,609,040**	**2,069,190**	**(211,460)**	**-9.3%**
Ending Fund Balance	**1,355,206**	**550,566**	**1,147,686**	**515,016**		
Change in Fund Balance	**1,355,196**	**(804,640)**	**(207,520)**	**(632,670)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	350,448	285,310	295,669	324,360	39,050	13.7%
Benefits	160,210	145,230	151,888	160,820	15,590	10.7%
Supplies/Equip	63,420	79,010	63,810	79,010	-	
Service/Charges	479,795	498,530	400,104	532,810	34,280	6.9%
Capital	2,573	-	-	-	-	
Indirect Charges	117,152	297,570	297,570	279,950	(17,620)	-5.9%
Transfer-Out	-	975,000	400,000	692,240	(282,760)	-29.0%
Total Expenditures	**1,173,598**	**2,280,650**	**1,609,040**	**2,069,190**	**(211,460)**	**-9.3%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Superintendent - Streets/Water/EM&R	-	0.40	0.40	0.40
Field Supervisor - Streets	1.00	1.00	1.00	1.00
Operator	0.25	0.25	1.25	1.25
Truck Driver	1.00	1.00	1.00	1.00
Maintenance Worker	1.05	1.00	1.00	1.00
Com Development/Parks & Rec Coordinator	0.01	-	-	-
Development Review Technician	-	-	-	0.25
Total Street Fund	**3.31**	**3.65**	**4.65**	**4.90**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Maint Adm & Overhead						
Salary/Wages	61,312	49,380	82,872	82,540	33,160	67.2%
Personnel Benefits	37,131	35,800	52,623	38,390	2,590	7.2%
Small Tools & Equipment	-	1,850	1,850	1,850	-	
Professional Services	776	15,130	-	15,510	380	2.5%
Insurance	82,961	87,650	-	87,650	-	
Repair/Maintenance	-	1,290	1,000	1,290	-	
Training and Other Charges	-	620	620	620	-	
Capital	2,573	-	-	-	-	
Rent/Lease	206,460	218,700	216,780	218,700	-	
Indirect Charges	117,152	297,570	297,570	279,950	(17,620)	-5.9%
Maint Adm & Overhead Total	**508,365**	**707,990**	**653,315**	**726,500**	**18,510**	**2.6%**
Parking Facilities						
Office & Operating Supplies	-	520	520	520	-	
Utilities	423	570	570	570	-	
Parking Facilities Total	**423**	**1,090**	**1,090**	**1,090**	**-**	**0.0%**
Roadside						
Salary/Wages	96,373	86,090	84,540	88,760	2,670	3.1%
Personnel Benefits	40,695	38,530	41,101	44,040	5,510	14.3%
Office & Operating Supplies	314	2,270	1,720	2,270	-	
Small Tools & Equipment	-	520	520	520	-	
Professional Services	3,535	460	-	470	10	2.2%
Insurance	-	-	324	-	-	
Utilities	1,215	6,390	1,500	6,390	-	
Training and Other Charges	-	520	300	520	-	
Roadside Total	**142,131**	**134,780**	**130,005**	**142,970**	**8,190**	**6.1%**
Roadway						
Salary/Wages	133,906	106,990	76,700	103,840	(3,150)	-2.9%
Personnel Benefits	56,368	44,780	36,948	52,660	7,880	17.6%
Office & Operating Supplies	25,947	21,000	18,000	21,000	-	
Gas, Oil, & Fuel	10	100	50	100	-	
Small Tools & Equipment	627	2,380	2,380	2,380	-	
Professional Services	2,840	3,090	3,090	36,980	33,890	1096.8%
Rent/Lease	803	-	-	-	-	
Insurance	-	-	-	-	-	
Utilities	1,307	-	-	-	-	
Repair/Maintenance	1,264	260	260	260	-	
Training and Other Charges	1,698	1,620	1,400	1,620	-	
Roadway Total	**224,769**	**180,220**	**138,828**	**218,840**	**38,620**	**21.4%**

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Sidewalks						
Salary/Wages	668	740	-	740	-	
Personnel Benefits	301	340	-	340	-	
Office & Operating Supplies	-	10,300	5,000	10,300	-	
Professional Services	19,584	-	-	-	-	
Insurance	-	-	-	-	-	
Training and Other Charges	10	210	210	210	-	
Sidewalks Total	**20,563**	**11,590**	**5,210**	**11,590**	**-**	
Snow and Ice Control						
Salary/Wages	33,954	25,930	11,000	4,370	(21,560)	-83.1%
Personnel Benefits	15,535	17,900	300	3,720	(14,180)	-79.2%
Office & Operating Supplies	13,977	3,500	2,500	3,500	-	
Professional Services	2,091	-	-	-	-	
Rent/Lease	543	-	-	-	-	
Repair/Maintenance	-	2,470	1,000	2,470	-	
Snow and Ice Control Total	**66,099**	**49,800**	**14,800**	**14,060**	**(35,740)**	**-71.8%**
Special Purpose Paths						
Office & Operating Supplies	104	10,300	5,000	10,300	-	
Special Purpose Paths Total	**104**	**10,300**	**5,000**	**10,300**	**-**	**0.0%**
Street Cleaning						
Salary/Wages	4,496	1,290	8,000	16,210		
Personnel Benefits	1,919	600	5,341	6,550		
Insurance	-	-	340	-	-	
Street Cleaning Total	**6,415**	**1,890**	**13,681**	**22,760**	**20,870**	**1104.2%**
Street Lighting						
Utilities	127,460	125,000	145,000	125,000	-	
Street Lighting Total	**127,460**	**125,000**	**145,000**	**125,000**	**-**	**0.0%**
Traffic Control Devices						
Salary/Wages	19,738	14,890	32,557	27,900	13,010	87.4%
Personnel Benefits	8,261	7,280	15,575	15,120	7,840	107.7%
Office & Operating Supplies	17,371	25,750	25,750	25,750	-	
Small Tools & Equipment	5,071	520	520	520	-	
Professional Services	521	-	-	-	-	
Insurance	-	-	-	-	-	
Utilities	7,154	10,040	8,500	10,040	-	
Repair/Maintenance	19,153	24,300	19,000	24,300	-	
Training and Other Charges	-	210	210	210	-	
Traffic Control Devices Total	77,269	82,990	102,112	103,840	20,850	25.1%
Transfer-Out						
Transfer-Out	-	975,000	400,000	692,240	(282,760)	-29.0%
Transfer-Out Total	**-**	**975,000**	**400,000**	**692,240**	**(282,760)**	**-29.0%**
Total Expenditures	**1,173,598**	**2,280,650**	**1,609,040**	**2,069,190**	**(211,460)**	**-9.3%**

DEPARTMENT SUMMARY

The Capital Resources Fund was approved by the City Council on December 17, 2019 as a new Special Revenue Fund to be used to account for and accumulate financial resources. The cash will remain in this fund until it is allocated by the City Council, through Ordinance, for use on qualifying projects.

BUDGET HIGHLIGHTS

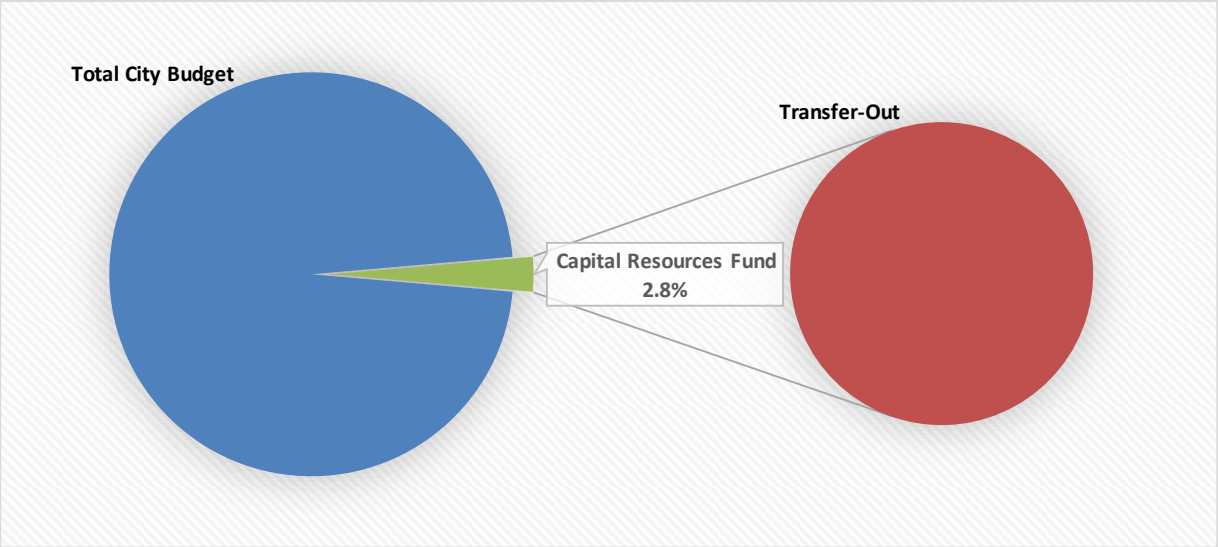
The Council approved the creation of the City's Capital Resources Fund in 2019 for the 2020 calendar year however, there was no expenditure budget in 2020. This fund will be used to account for various capital monies until those monies are appropriated to a project by the City Council through an Ordinance. The 2021 budget includes nearly $497,000 in funding for capital projects.

CAPITAL RESOURCES FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance				**499,176**		
FUNDING SOURCES						
Taxes	-	220,000	70,000	100,000	(120,000)	-54.5%
Charges for Goods/Service	-	60,000	30,000	40,000	(20,000)	-33.3%
Transfer In	-	30,600	447,900	-	(30,600)	-100.0%
Total Revenues	**-**	**310,600**	**547,900**	**140,000**	**(170,600)**	**-54.9%**
EXPENDITURES BY DIVISION						
Transfers-Out	-	-	48,724	496,630	496,630	100.0%
Total Expenditures	**-**	**-**	**48,724**	**496,630**	**496,630**	**100.0%**
Ending Fund Balance		**310,600**	**499,176**	**142,546**		
Change in Fund Balance		**310,600**	**499,176**	**(356,630)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Transfer-Out	-	-	-	496,630	496,630	100.0%
Total Expenditures	-	-	-	**496,630**	**496,630**	100.0%



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Transfers-Out	-	-	48,724	496,630	496,630	100.0%
Total Expenditures	**-**	**-**	**48,724**	**496,630**	**496,630**	**100.0%**

DEPARTMENT SUMMARY

The Tourism Fund is used to account for the 4.0% tax as allowed by RCW on lodging at hotels, motels, and similar establishments, including bed and breakfasts and RV parks located within Shelton. These revenues are restricted for tourism promotion and for the acquisition and/or operation of tourism related facilities or businesses. Tourism promotion means activities, operations, and expenditures designed to increase tourism, including advertising, publicizing, or other distribution of information to attract and welcome tourists. It also includes developing strategies to expand tourism, operating tourism promotion agencies, and funding marketing of or the operation of special cultural, athletic, or entertainment events and activities designed to attract tourists. The City's Lodging Tax Advisory Committee receives, reviews and recommends funding appropriations for selected activities to the City Council, who authorize spending through the budget process.

BUDGET HIGHLIGHTS

The proposed Tourism Fund budget increases by $2,750 or 4.7% from the 2020 appropriation. The funding allocations proposed equal $61,880 for 2021 activities/events are:

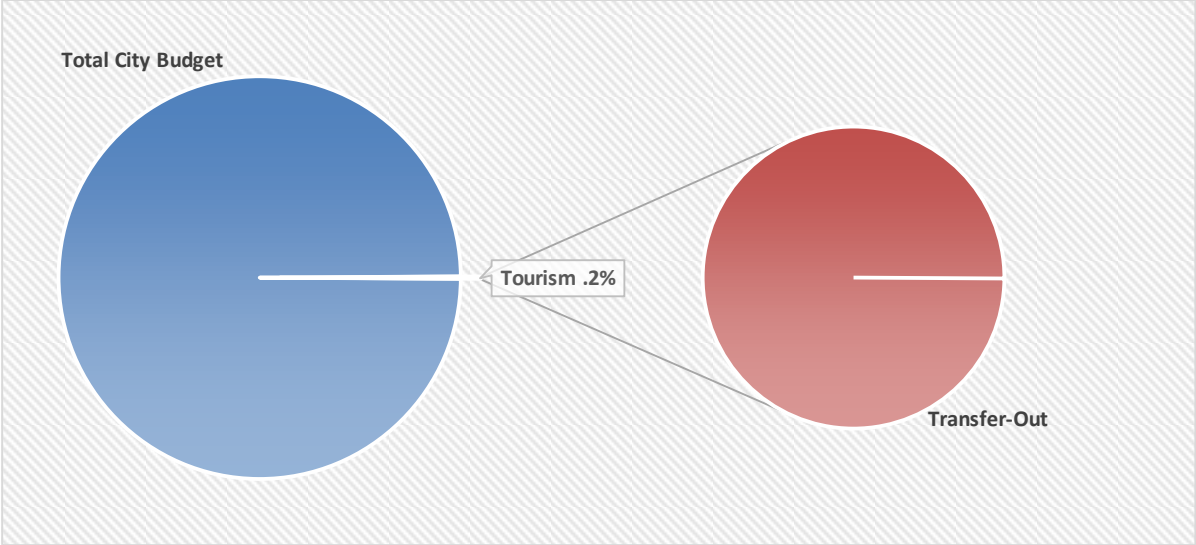
- Mason County Historical Museum - $11,250
- Mason County Historical Society Downtown Car Show - $1,782
- Kristmas Town Kiwanis – Bluegrass from the Forest - $6,300
- Mason County Forest Festival - $8,910
- Shelton-Mason Chamber Operational Tourism - $18,000
- Shelton-Mason Chamber Marketing Signage - $3,308
- NW Event Organizers/Kristmas Town Kiwanis Christmas Town – $12,330

TOURISM FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**118,174**	**118,186**	**118,186**	**83,630**		
FUNDING SOURCES						
Taxes	50,859	50,000	33,092	36,000	(14,000)	-28.0%
Miscellaneous Revenue	1,827	1,700	919	1,700	-	0.0%
Total Revenue	**52,687**	**51,700**	**34,011**	**37,700**	**(14,000)**	**-27.1%**
EXPENDITURES BY DIVISION						
Tourism	52,675	59,130	68,567	61,880	2,750	4.7%
Total Expenditures	**52,675**	**59,130**	**68,567**	**61,880**	**2,750**	**4.7%**
Ending Fund Balance	**118,186**	**110,756**	**83,630**	**59,450**		
Change in Fund Balance	**12**	**(7,430)**	**(34,556)**	**(24,180)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Service/Charges	52,675	59,130	68,567	61,880	2,750	4.7%
Total Expenditures	52,675	59,130	**68,567**	**61,880**	**2,750**	**4.7%**



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Tourism						
Professional Services	52,675	59,130	68,567	61,880	2,750	4.7%
Total Expenditures	52,675	59,130	68,567	61,880	**2,750**	**4.7%**

DEPARTMENT SUMMARY

The Bond Fund is used to account for the accumulation of resources to be used for the retirement of City general long-term debt. The appropriation authorized for these funds are determined by the debt payment schedules approved by the City Council (or City Commission) as part of debt issuance and cannot legally be altered by legislative action.

BUDGET HIGHLIGHTS

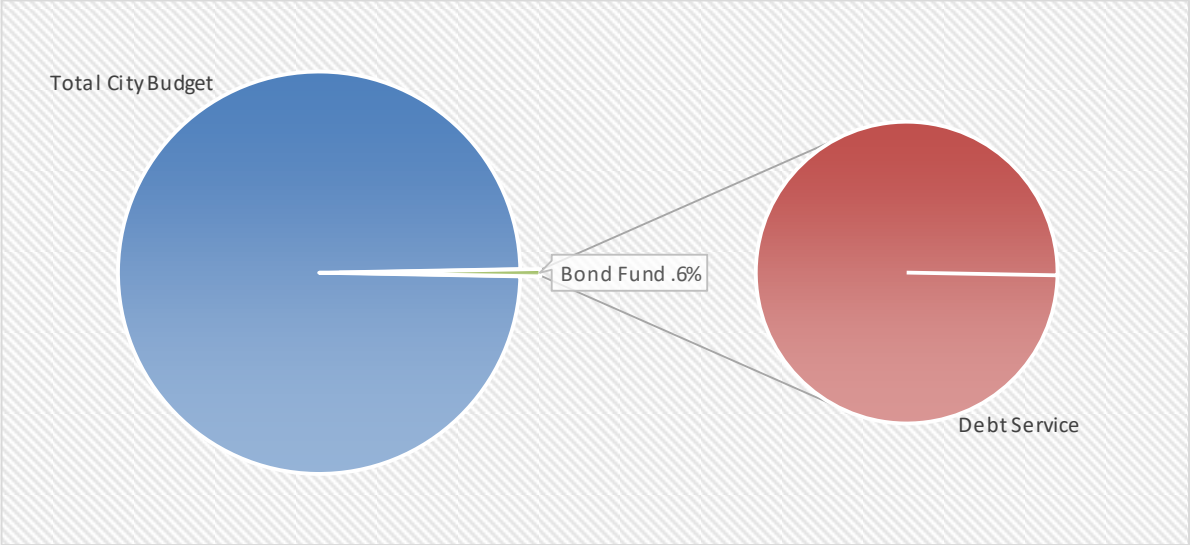
The Bond Fund allocation for 2021 is the same as the 2020 allocation. The decrease from 2019 reflects the retirement of the 2013 LTGO refunding bonds used for financing the civic center.

BOND FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**11,775**	**14,989**	**14,989**	**16,570**		
FUNDING SOURCES						
Taxes	3,615	-	1,580	-	-	0.0%
Transfer In	282,318	184,490	184,468	184,490	-	0.0%
Total Revenue	**285,933**	**184,490**	**186,048**	**184,490**	**-**	**0.0%**
EXPENDITURES BY DIVISION						
Bond Fund	282,719	184,490	184,467	184,490	-	0.0%
Total Expenditures	**282,719**	**184,490**	**184,467**	**184,490**	**-**	**0.0%**
Ending Fund Balance	**14,989**	**14,989**	**16,570**	**16,570**		
Change in Fund Balance	**3,214**	**-**	**1,581**	**-**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Debt Service	282,719	184,490	184,467	184,490	-	0.0%
Total Expenditures	**282,719**	**184,490**	**184,467**	**184,490**	**-**	**0.0%**



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Bond Fund						
Debt Principal	149,698	56,780	56,768	58,940	2,160	0.0%
Debt Interest	133,021	127,710	127,699	125,550	(2,160)	0.0%
Total Expenditures	**282,719**	**184,490**	**184,467**	**184,490**	**-**	**0.0%**

DEPARTMENT SUMMARY

The Capital Improvement Fund is where the City accounts for the resources and expenditures related to all City Capital Projects that are not accounted for in City Proprietary Funds. The City uses this fund to track revenue and expenses at the project level to ensure that the City has financial resources to cover the cost of each project and to ensure that total project expenses do not exceed budget authority. Potential funding includes state and federal grants, Real Estate Excise Tax (REET), Impact Fees, Transportation Benefit District tax monies, debt financing, as well as transfers into this fund.

In all cases, the City considers restricted monies to have been spent first when expenditures are incurred for purposes for which both restricted and unrestricted resources are available. When expenditures occur of unrestricted monies, unassigned resources are always considered the last monies to be included after all other qualified resources have been exhausted.

BUDGET HIGHLIGHTS

The Capital Improvement Fund budget will fluctuate somewhat from year to year depending on budgeted capital projects and the funding sources for those projects.

Capital projects included in the Capital Improvement Fund for 2021 are:

- Street/Transportation: Pavement Maintenance Program, Western Gateway, and the Street funds portion of the Public Works Maintenance Facility Expansion.
- Facilities: New cargo van, Civic Center and Library parking lot improvements.
- Parks: Ravenna Trail Crosswalk, Northcliff Neighborhood Park Master Plan, Simpson Railroad Trail Design, Eagle Point Trail Construction, and Callanan Irrigation and Backstop Fencing.
- Construction improvements to the gravel Civic Center Parking Lot.

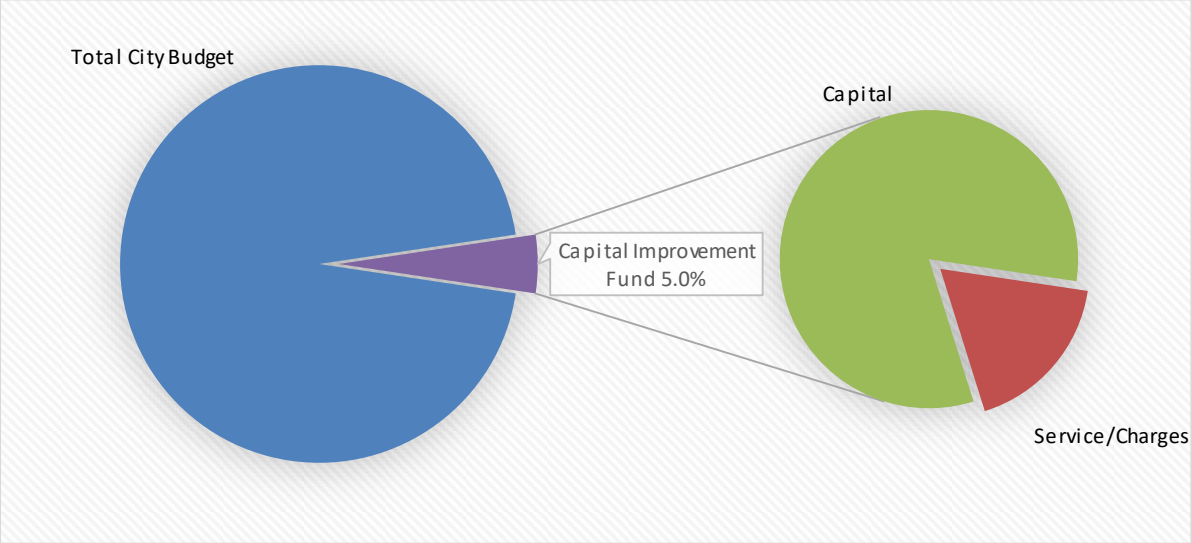
A list of capital projects city-wide, including the resources budgeted to fund the project and the budgeted cost of the project, can be found in the Overview Section.

CAPITAL IMPROVEMENT FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**24,655**	**428,727**	**428,727**	**700,547**		
FUNDING SOURCES						
Taxes	289,013	90,000	-	-	(90,000)	-100.0%
Intergovernmental Revenue	4,216,443	760,400	789,790	200,000	(560,400)	-73.7%
Charges for Goods/Service	310,202	190,000	353,080	232,000	42,000	22.1%
Transfer In	-	1,049,500	50,000	1,140,140	90,640	8.6%
Total Revenue	**4,815,658**	**2,089,900**	**1,192,870**	**1,572,140**	**(517,760)**	**-24.8%**
EXPENDITURES BY DIVISION						
Capital	4,362,862	2,089,900	921,050	1,572,140	(517,760)	-24.8%
Transfer Out	48,724	48,730	-	-	(48,730)	-100.0%
Grand Total	**4,411,586**	**2,138,630**	**921,050**	**1,572,140**	**(566,490)**	**-26.5%**
Ending Fund Balance	**428,727**	**379,997**	**700,547**	**700,547**		
Change in Fund Balance	**404,072**	**(48,730)**	**271,820**	**-**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Supplies/Equip	3,424	-	-	-	-	
Service/Charges	265,504	50,000	73,780	279,900	229,900	459.8%
Capital	4,042,492	2,039,900	835,200	1,292,240	(747,660)	-36.7%
Transfer Out	48,724	48,730	-	-	(48,730)	-100.0%
Indirect Charges	51,441	-	12,070	-	-	
Grand Total	**4,411,586**	**2,138,630**	**921,050**	**1,572,140**	**(566,490)**	**-26.5%**



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Capital						
Office & Operating Supplies	3,424	-	-	-	-	
Professional Services	265,479	50,000	73,780	-	(50,000)	-100.0%
Communication	26	-	-	-	-	
Training and Other Charges	-	-	-	279,900	279,900	100.0%
Capital	4,042,492	2,039,900	835,200	1,292,240	(747,660)	-36.7%
Indirect Charges	51,441	-	12,070	-	-	
Capital Total	**4,362,862**	**2,089,900**	**921,050**	**1,572,140**	**(517,760)**	**-24.8%**
Transfer Out						
Transfer Out	48,724	48,730	-	-	(48,730)	-100.0%
Transfer Out Total	**48,724**	**48,730**	**-**	**-**	(48,730)	-100.0%
Grand Total	**4,411,586**	**2,138,630**	**921,050**	**1,572,140**	**(566,490)**	**-26.5%**

MISSION STATEMENT

To provide high quality water services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Water Utility Fund is used to operate, maintain and improve the water distribution system to provide for the delivery of safe, high quality water for all City water users. Revenue is primarily from charges for service with additional funding from system development fees, lease revenue, and investment interest.

BUDGET HIGHLIGHTS

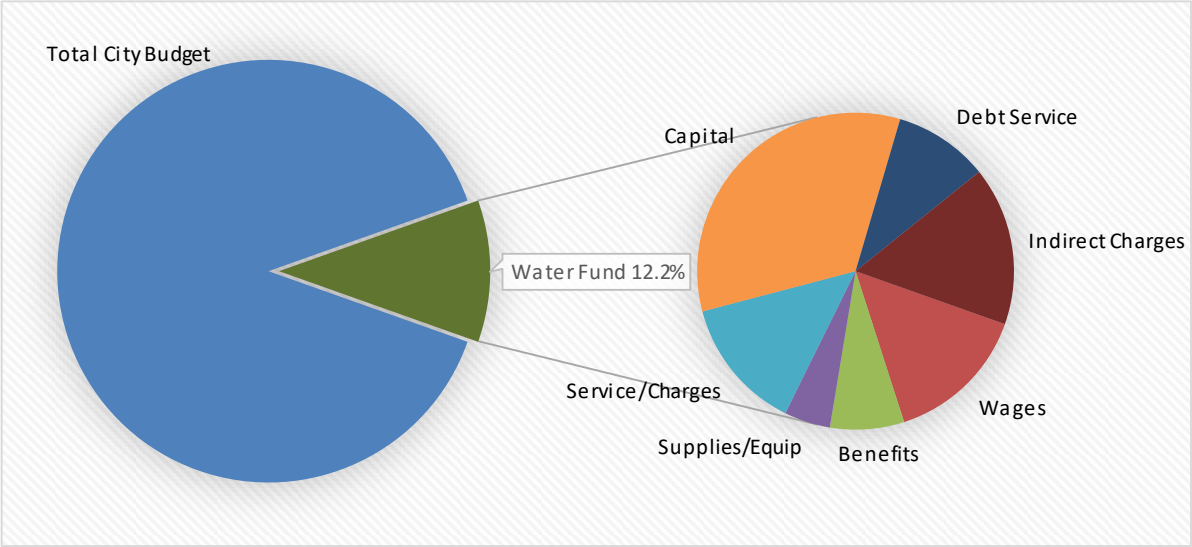
The Water Fund budget increases by $101,140 or 4.1%. The Water Fund appropriation request includes $1,310,000 for capital projects in 2021 to include the PW maintenance facility expansion, automated meter read, well 1 tank pressurization project, and the pavement maintenance program. The budget also includes funding for 25% of a new Development Review Technician.

WATER FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**2,176,789**	**2,415,807**	**2,415,807**	**1,998,234**		
FUNDING SOURCES						
Intergovernmental Revenue	-	-	30,000	-	-	
Charges for Goods/Service	2,370,528	2,347,090	2,227,613	2,487,440	140,350	6.0%
Miscellaneous Revenue	156,443	127,000	85,700	87,790	(39,210)	-30.9%
Total Revenue	**2,526,971**	**2,474,090**	**2,343,313**	**2,575,230**	**101,140**	4.1%
EXPENDITURES BY DIVISION						
Water Operations	2,287,953	3,720,740	2,760,886	3,865,560	144,820	3.9%
Total Expenditures	**2,287,953**	**3,720,740**	**2,760,886**	**3,865,560**	**144,820**	**3.9%**
Ending Fund Balance	**2,415,807**	**1,169,157**	**1,998,234**	**707,904**		
Change in Fund Balance	**239,018**	**(1,246,650)**	**(417,572)**	**(1,290,330)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	394,828	531,240	521,530	562,980	31,740	6.0%
Benefits	171,258	262,230	191,711	291,090	28,860	11.0%
Supplies/Equip	72,780	181,570	145,490	181,570	-	0.0%
Service/Charges	601,512	458,740	765,450	523,300	64,560	14.1%
Inventory	51,628	-	4,745	-	-	
Capital	64,931	1,255,000	100,000	1,310,000	55,000	4.4%
Debt Service	373,991	373,390	373,390	372,930	(460)	-0.1%
Indirect Charges	557,027	658,570	658,570	623,690	(34,880)	-5.3%
Total Expenditures	**2,287,953**	**3,720,740**	**2,760,886**	**3,865,560**	**144,820**	**3.9%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Superintendent - Streets/Water/EM&R	-	0.40	0.40	0.40
Field Supervisor - Water	1.00	1.00	1.00	1.00
Assistant Field Supervisor - Water	1.00	1.00	1.00	1.00
Water Quality Specialist	2.00	1.00	1.00	1.00
Water Quality Specialist in Training	-	1.00	1.00	1.00
Operator	1.50	2.50	2.50	2.50
Truck Driver	1.50	0.50	0.50	0.50
Maintenance Worker	1.02	1.00	1.00	1.00
Development Review Technician	-	-	-	0.25
Total Water Fund	**8.02**	**8.40**	**8.40**	**8.65**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Water Operations						
Salary/Wages	394,828	531,240	521,530	562,980	31,740	6.0%
Personnel Benefits	171,258	262,230	191,711	291,090	28,860	11.0%
Office & Operating Supplies	58,419	155,760	127,000	155,760	-	0.0%
Small Tools & Equipment	3,553	8,760	8,230	8,760	-	0.0%
Professional Services	231,324	48,820	357,629	113,380	64,560	132.2%
Communication	6,922	6,700	6,700	6,700	-	0.0%
Travel	319	720	720	720	-	0.0%
Insurance	8,651	8,920	25,421	8,920	-	0.0%
Utilities	133,690	155,000	145,000	155,000	-	0.0%
Taxes/Assessments	96,037	89,610	89,610	89,610	-	0.0%
Training and Other Charges	10,911	13,400	7,100	13,400	-	0.0%
Gas, Oil, & Fuel	10,807	17,050	10,260	17,050	-	0.0%
Inventory	51,628	-	4,745	-	-	
Capital	64,931	1,255,000	100,000	1,310,000	55,000	4.4%
Debt Principal	250,759	255,760	255,760	260,760	5,000	2.0%
Rent/Lease	66,314	67,930	67,930	67,930	-	0.0%
Repair/Maintenance	47,344	67,640	65,340	67,640	-	0.0%
Debt Interest	122,932	117,630	117,630	112,170	(5,460)	-4.6%
Debt Service	300	-	-	-	-	
Indirect Charges	557,027	658,570	658,570	623,690	(34,880)	-5.3%
Total Expenditures	**2,287,953**	**3,720,740**	**2,760,886**	**3,865,560**	**144,820**	**3.9%**

MISSION STATEMENT

To provide high quality sewer services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Sewer Utility Fund is used to operate, maintain and improve the City's sewer system and provide for the safe disposal and treatment of wastewater for the residents of the City of Shelton. Revenue for this fund is primarily from charges for service.

BUDGET HIGHLIGHTS

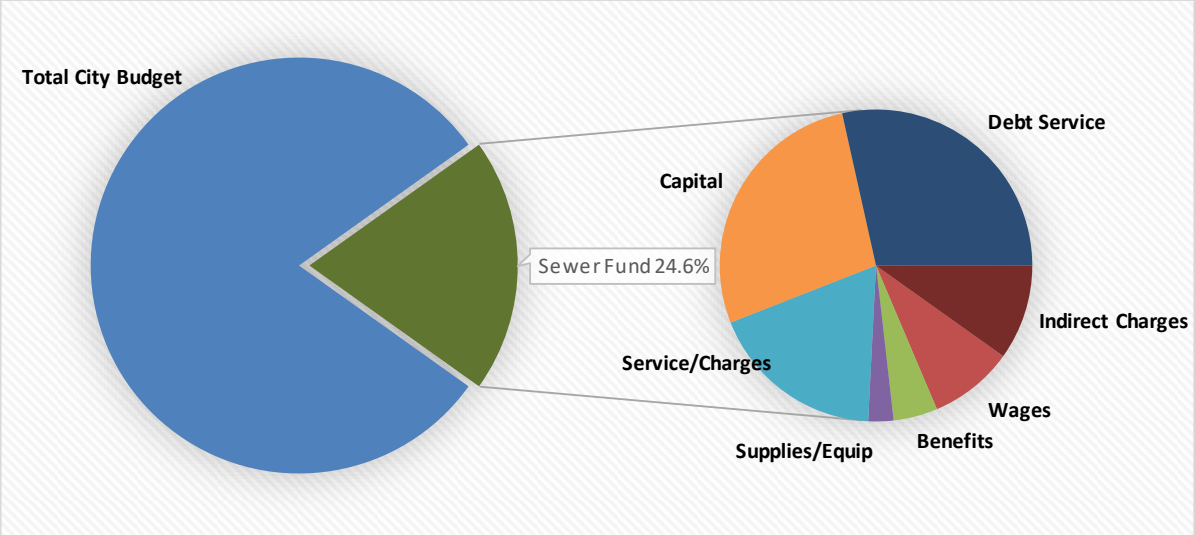
The Sewer Fund budget decreases by $2,009,890 or 34.8%. The large increase in Sewer is significantly related to the $2,139,200 budget for capital projects. Those projects include the automated meter read, MBR filter replacement, a slacktide tank, and a wastewater comprehensive plan update. The Sewer budget also include funding for 25% of the Development Review Technician position.

SEWER FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**1,801,780**	**4,024,695**	**4,024,695**	**4,263,597**		
FUNDING SOURCES						
Intergovernmental Revenue	3,599,787	-	-	-	-	
Charges for Goods/Service	5,673,695	5,793,930	5,863,722	5,996,890	202,960	3.5%
Miscellaneous Revenue	535,426	217,000	197,205	175,000	(42,000)	-19.4%
Total Revenue	**9,808,908**	**6,010,930**	**6,060,927**	**6,171,890**	**160,960**	**2.7%**
EXPENDITURES BY DIVISION						
Collection Main	244,179	286,530	373,169	398,740	112,210	39.2%
Other Main	522,514	704,970	760,150	831,570	126,600	18.0%
Service Main	878,456	1,109,980	1,013,043	929,230	(180,750)	-16.3%
Sewer Operations	5,582,169	3,233,620	3,316,825	5,125,950	1,892,330	58.5%
Coalition	257	25,750	-	26,390	640	2.5%
Services -Satellite Plant	293,673	341,390	259,262	398,510	57,120	16.7%
Other Satellite Plant	64,745	75,090	99,576	76,830	1,740	2.3%
Total Expenditures	**7,585,993**	**5,777,330**	**5,822,025**	**7,787,220**	**2,009,890**	**34.8%**
Ending Fund Balance	**4,024,695**	**4,258,295**	**4,263,597**	**2,648,267**		
Change in Fund Balance	**2,222,915**	**233,600**	**238,902**	**(1,615,330)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	543,990	623,970	621,465	682,270	58,300	9.3%
Benefits	261,754	323,100	281,499	355,990	32,890	10.2%
Supplies/Equip	209,613	166,080	216,747	202,920	36,840	22.2%
Service/Charges	1,611,682	1,432,250	1,413,777	1,420,090	(12,160)	-0.8%
Capital	1,850,864	30,000	76,264	2,139,170	2,109,170	7030.6%
Debt Service	2,223,540	2,220,010	2,230,354	2,216,620	(3,390)	-0.2%
Indirect Charges	884,550	981,920	981,920	770,160	(211,760)	-21.6%
Total Expenditures	**7,585,993**	**5,777,330**	**5,822,025**	**7,787,220**	**2,009,890**	**34.8%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Superintendent - Sewer/Storm	-	0.50	0.50	0.50
Field Supervisor - Sewer/Storm	0.50	0.50	0.50	0.50
Waste Water Treatment Plant Tech III	1.00	1.00	1.00	1.00
Waste Water Treatment Plant Tech II	1.00	1.00	1.00	1.00
Operator Tech III	2.00	2.00	2.00	2.00
Waste Water Treatment Plant Tech in Trng	1.00	1.00	1.00	1.00
Operator	1.50	1.50	1.50	1.50
Truck Driver	0.80	0.80	0.80	0.80
Maintenance Worker	1.00	1.00	2.00	2.00
Development Review Technician	-	-	-	0.25
Total Sewer Fund	**8.80**	**9.30**	**10.30**	**10.55**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Coalition						
Office & Operating Supplies	257	-	-	-	-	
Professional Services	-	25,750	-	26,390	640	2.5%
Coalition Total	**257**	**25,750**	**-**	**26,390**	**640**	**2.5%**
Collection Main						
Salary/Wages	128,658	147,340	217,003	222,420	75,080	51.0%
Personnel Benefits	59,328	76,680	96,946	105,960	29,280	38.2%
Office & Operating Supplies	15,578	10,300	10,300	10,300	-	0.0%
Gas, Oil, & Fuel	52	-	-	-	-	
Small Tools & Equipment	2,434	6,180	6,180	6,180	-	0.0%
Professional Services	5,889	7,730	7,730	10,000	2,270	29.4%
Communication	3,904	4,120	4,120	5,000	880	21.4%
Travel	-	770	770	1,500	730	94.8%
Rent/Lease	1,241	1,030	1,030	5,000	3,970	385.4%
Insurance	21,324	21,970	8,486	21,970	-	0.0%
Utilities	4,251	4,530	4,530	4,530	-	0.0%
Repair/Maintenance	371	3,610	3,610	3,610	-	0.0%
Training and Other Charges	1,149	2,270	12,464	2,270	-	0.0%
Collection Main Total	**244,179**	**286,530**	**373,169**	**398,740**	**112,210**	**39.2%**
Other Main						
Salary/Wages	86,140	95,790	134,674	179,110	83,320	87.0%
Personnel Benefits	54,311	62,680	78,554	105,220	42,540	67.9%
Professional Services	183,610	324,770	328,760	325,510	740	0.2%
Insurance	-	-	3,255	-	-	
Utilities	435	5,150	447	5,150	-	0.0%
Taxes/Assessments	103,874	103,000	102,000	103,000	-	0.0%
Training and Other Charges	3,925	5,150	4,031	5,150	-	0.0%
Rent/Lease	33,768	38,110	38,110	38,110	-	0.0%
Gas, Oil, & Fuel	15,815	15,450	15,450	15,450	-	0.0%
Repair/Maintenance	40,635	54,870	54,870	54,870	-	0.0%
Other Main Total	**522,514**	**704,970**	**760,150**	**831,570**	**126,600**	**18.0%**
Other Satellite Plant						
Salary/Wages	33,880	33,510	50,712	35,730	2,220	6.6%
Personnel Benefits	19,555	20,980	26,623	20,140	(840)	-4.0%
Insurance	-	-	1,280	-	-	
Taxes/Assessments	10,555	10,820	10,820	10,820	-	0.0%
Repair/Maintenance	755	9,780	9,780	9,780	-	0.0%
Gas, Oil, & Fuel	-	-	362	360	360	
Other Satellite Plant Total	**64,745**	**75,090**	**99,576**	**76,830**	**1,740**	**2.3%**

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Service Main						
Salary/Wages	211,427	254,740	185,734	116,670	(138,070)	-54.2%
Personnel Benefits	91,751	114,660	64,154	59,170	(55,490)	-48.4%
Office & Operating Supplies	79,774	75,000	100,000	110,000	35,000	46.7%
Gas, Oil, & Fuel	4,980	1,550	1,550	1,550	-	0.0%
Small Tools & Equipment	9,326	15,970	15,970	15,450	(520)	-3.3%
Professional Services	118,262	106,090	113,178	58,420	(47,670)	-44.9%
Communication	11,296	10,820	13,110	25,820	15,000	138.6%
Travel	-	410	410	3,410	3,000	731.7%
Rent/Lease	489	520	520	520	-	0.0%
Insurance	71,868	74,030	62,168	74,030	-	0.0%
Utilities	246,121	285,000	285,000	285,000	-	0.0%
Repair/Maintenance	27,928	164,800	164,800	164,800	-	0.0%
Training and Other Charges	5,234	6,390	6,449	6,890	500	7.8%
Intergovernmental	-	-	-	7,500	7,500	
Service Main Total	**878,456**	**1,109,980**	**1,013,043**	**929,230**	**(180,750)**	**-16.3%**
Services -Satellite Plant						
Salary/Wages	83,127	91,460	33,342	128,340	36,880	40.3%
Personnel Benefits	36,472	47,540	15,223	65,500	17,960	37.8%
Office & Operating Supplies	44,543	35,000	45,000	35,000	-	0.0%
Gas, Oil, & Fuel	364	-	-	-	-	
Small Tools & Equipment	-	6,630	6,630	8,630	2,000	30.2%
Professional Services	11,739	11,330	13,887	11,610	280	2.5%
Communication	6,440	6,700	7,184	6,700	-	0.0%
Insurance	21,072	21,700	18,941	21,700	-	0.0%
Utilities	77,587	108,150	93,845	108,150	-	0.0%
Repair/Maintenance	12,177	12,670	25,000	12,670	-	0.0%
Training and Other Charges	151	210	210	210	-	0.0%
Services -Satellite Plant Total	**293,673**	**341,390**	**259,262**	**398,510**	**57,120**	**16.7%**
Sewer Operations						
Salary/Wages	759	1,130	-	-	(1,130)	-100.0%
Personnel Benefits	338	560	-	-	(560)	-100.0%
Office & Operating Supplies	36,489	-	15,305	-	-	
Professional Services	584,938	-	6,446	-	-	
Insurance	-	-	6,536	-	-	
Training and Other Charges	690	-	-	-	-	
Capital	1,850,864	30,000	76,264	2,139,170	2,109,170	7030.6%
Debt Principal	1,484,135	1,501,440	1,501,440	1,519,110	17,670	1.2%
Debt Interest	739,105	718,570	728,914	697,510	(21,060)	-2.9%
Debt Service	300	-	-	-	-	
Indirect Charges	884,550	981,920	981,920	770,160	(211,760)	-21.6%
Sewer Operations Total	**5,582,169**	**3,233,620**	**3,316,825**	**5,125,950**	**1,892,330**	**58.5%**
Total Expenditures	**7,585,993**	**5,777,330**	**5,822,025**	**7,787,220**	**2,009,890**	**34.8%**

MISSION STATEMENT

To provide high quality solid waste services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Solid Waste Utility Fund accounted for the operation of refuse and recycling collection. The City contracted with Mason County in 2017 for solid waste services. The fund remains open to account of the cleanup of the C Street landfill.

BUDGET HIGHLIGHTS

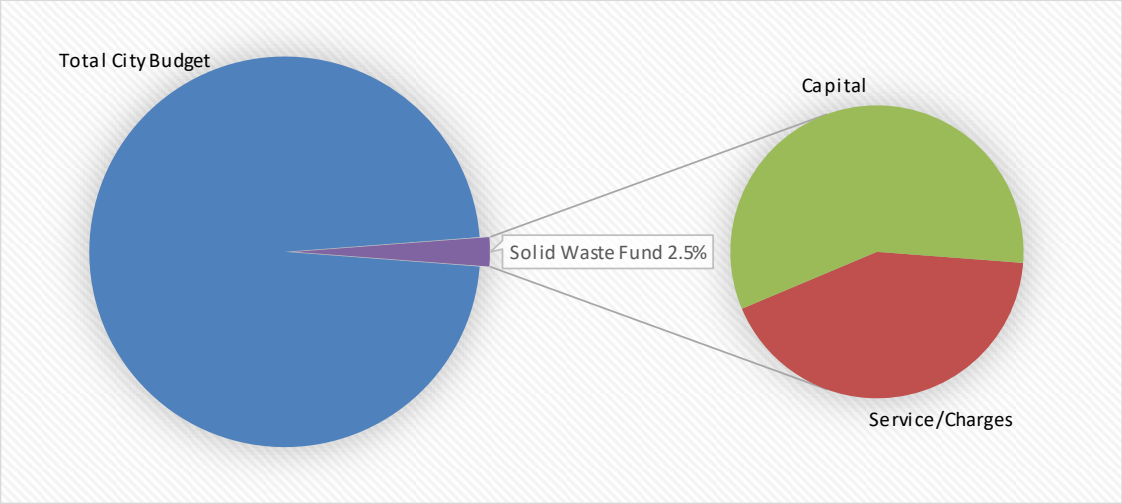
All funds collected will be restricted for landfill closeout costs.

SOLID WASTE FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**991,092**	**1,035,296**	**1,035,296**	**944,660**		
FUNDING SOURCES						
Intergovernmental Revenue	181,136	470,000	10,000	450,000	(20,000)	-4.3%
Charges for Goods/Service	155	-	256	-	-	
Miscellaneous Revenue	5	-	11	-	-	
Total Revenue	**181,296**	**470,000**	**10,267**	**450,000**	**(20,000)**	**-4.3%**
EXPENDITURES BY DIVISION						
Solid Waste Operations	137,092	1,459,020	100,903	781,810	(677,210)	-46.4%
Total Expenditures	137,092	1,459,020	100,903	781,810	(677,210)	-46.4%
Ending Fund Balance	**1,035,296**	**46,276**	**944,660**	**612,850**		
Change in Fund Balance	**44,204**	**(989,020)**	**(90,636)**	**(331,810)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Benefits	3,272	-	-	-	-	
Inventory	5	-	10	-	-	
Service/Charges	133,815	431,810	100,746	331,810	(100,000)	-23.2%
Capital	-	1,027,210	-	450,000	(577,210)	-56.2%
Indirect Charges	-	-	147	-	-	
Grand Total	**137,092**	**1,459,020**	**100,903**	**781,810**	**(677,210)**	**-46.4%**



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Solid Waste Operations						
Personnel Benefits	3,272	-	-	-	-	
Professional Services	133,813	431,810	100,742	331,810	(100,000)	-23.2%
Taxes/Assessments	2	-	4	-	-	
Inventory	5	-	10	-	-	
Capital	-	1,027,210	-	450,000	(577,210)	-56.2%
Indirect Charges	-	-	147	-	-	
Total Expenditures	**137,092**	**1,459,020**	**100,903**	**781,810**	**(677,210)**	**-46.4%**

MISSION STATEMENT

To provide high quality storm water drainage services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Storm Drainage Utility Fund provides for the maintenance and operation of the City's storm drainage facilities. Revenue for this fund is primarily from charges for services. Proper maintenance of the drainage facilities reduces the impact of heavy rain or prolonged wet weather conditions.

BUDGET HIGHLIGHTS

The Storm Drainage Fund budget increases by $63,050 or 4.9%. The Storm Drainage Fund includes funding for 25% of the Development Review Technician and well as $35,000 for capital expenses.

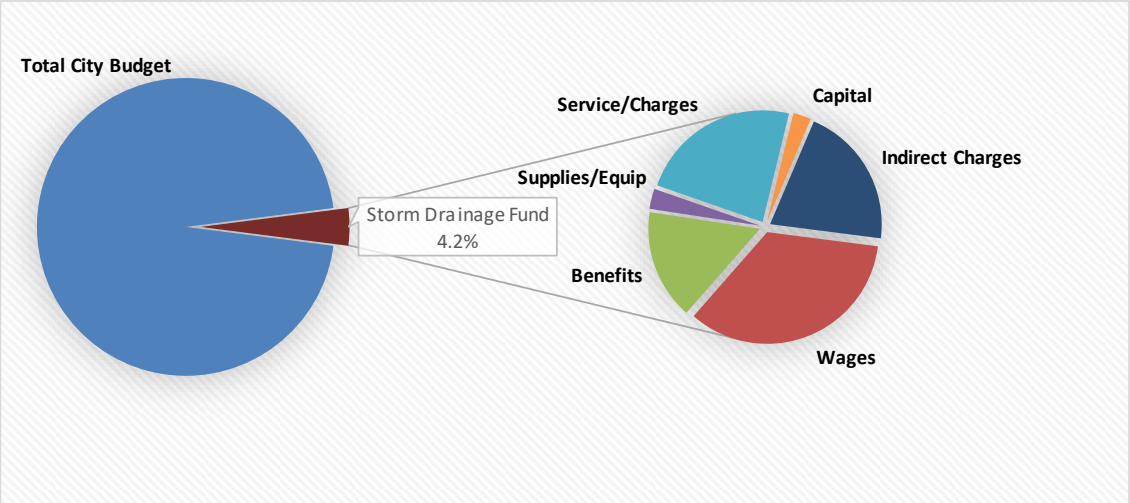
This fund will require either a rate increase or a significant reduction in expense activities in 2021 as the budget will use nearly all available resources including accumulated fund balance.

STORM DRAINAGE FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**666,469**	**429,866**	**429,866**	**356,083**		
FUNDING SOURCES						
Intergovernmental Revenue	25,000	95,000	95,000	25,000	(70,000)	-73.7%
Charges for Goods/Service	764,614	1,155,000	771,502	960,000	(195,000)	-16.9%
Miscellaneous Revenue	11,928	15,000	-	4,000	(11,000)	-73.3%
Total Revenue	**801,542**	**1,265,000**	**866,502**	**989,000**	**(276,000)**	**-21.8%**
EXPENDITURES BY DIVISION						
Storm Operations	1,038,145	1,275,710	940,285	1,338,760	63,050	4.9%
Total Expenditures	**1,038,145**	**1,275,710**	**940,285**	**1,338,760**	**63,050**	**4.9%**
Ending Fund Balance	**429,866**	**419,156**	**356,083**	**6,323**		
Change in Fund Balance	**(236,603)**	**(10,710)**	**(73,783)**	**(349,760)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	164,230	434,540	255,000	460,840	26,300	6.1%
Benefits	74,608	221,500	103,065	213,560	(7,940)	-3.6%
Supplies/Equip	38,574	39,120	39,120	39,120	-	0.0%
Service/Charges	213,745	283,680	213,680	314,380	30,700	10.8%
Capital	303,754	8,000	40,550	35,000	27,000	337.5%
Indirect Charges	243,235	288,870	288,870	275,860	(13,010)	-4.5%
Total Expenditures	**1,038,145**	**1,275,710**	**940,285**	**1,338,760**	**63,050**	**4.9%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Superintendent - Sewer/Storm	-	0.50	0.50	0.50
City Engineer	-	-	0.50	0.50
Field Supervisor - Sewer/Storm	0.50	0.50	0.50	0.50
Operator	1.75	2.75	3.75	3.75
Truck Driver	0.70	0.70	0.70	0.70
Maintenance Worker	-	-	1.00	1.00
Permit Coordinator	0.05	0.05	0.05	0.05
Development Review Technician	-	-	-	0.25
Total Storm Drainage Fund	**3.00**	**4.50**	**7.00**	**7.25**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Storm Operations						
Salary/Wages	164,230	434,540	255,000	460,840	26,300	6.1%
Personnel Benefits	74,608	221,500	103,065	213,560	(7,940)	-3.6%
Office & Operating Supplies	31,287	25,000	25,000	25,000	-	0.0%
Small Tools & Equipment	2,588	10,000	10,000	10,000	-	0.0%
Professional Services	72,968	99,660	79,035	121,400	21,740	21.8%
Communication	-	210	-	210	-	0.0%
Insurance	251	260	6,765	260	-	0.0%
Utilities	1,995	1,960	1,960	1,960	-	0.0%
Taxes/Assessments	11,423	11,740	9,529	11,740	-	0.0%
Training and Other Charges	821	13,390	6,075	7,500	(5,890)	-44.0%
Capital	303,754	8,000	40,550	35,000	27,000	337.5%
Rent/Lease	50,959	61,430	55,576	62,850	1,420	2.3%
Repair/Maintenance	75,327	95,030	54,740	108,460	13,430	14.1%
Indirect Charges	243,235	288,870	288,870	275,860	(13,010)	-4.5%
Gas, Oil, & Fuel	4,698	4,120	4,120	4,120	-	0.0%
Total Expenditures	**1,038,145**	**1,275,710**	**940,285**	**1,338,760**	**63,050**	**4.9%**

DEPARTMENT SUMMARY

The Payroll Benefits Fund accounts for the City's self-funded unemployment program, medical costs for retired police officers covered by the LEOFF 1 retirement plan, and the City's sick leave buy-back program.

BUDGET HIGHLIGHTS

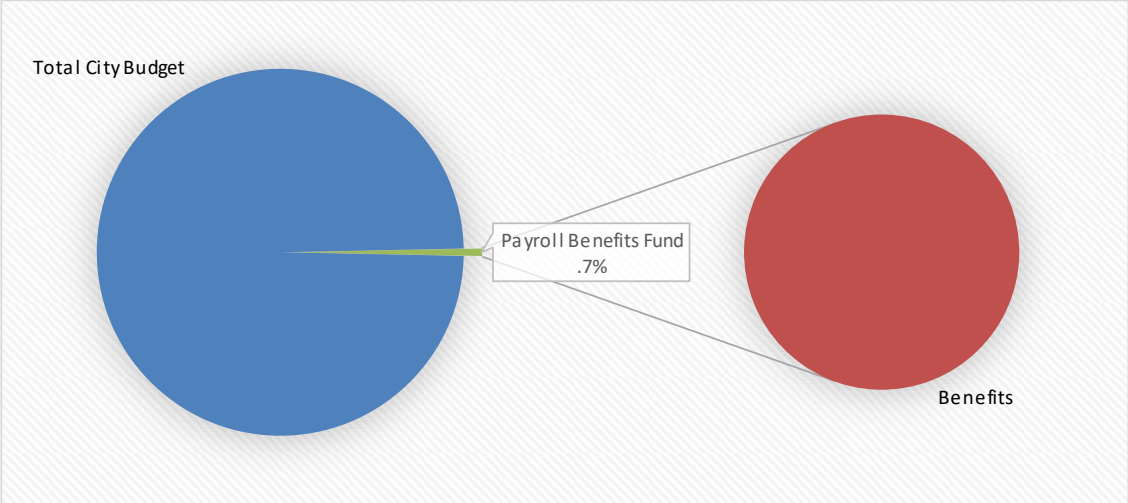
The Payroll Benefits Fund decreases by $12,500 or 5.7%. The changes reflect the City assumption on resource need for 2021.

PAYROLL BENEFITS FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**127,103**	**139,893**	**139,893**	**139,893**		
FUNDING SOURCES						
Charges for Goods/Service	38,083	40,000	40,000	40,000	-	0.0%
Miscellaneous Revenue	2,588	1,900	5,600	1,900	-	0.0%
Transfer In	84,738	164,800	80,000	164,800	-	0.0%
Total Revenue	**125,409**	**206,700**	**125,600**	**206,700**	-	0.0%
EXPENDITURES BY DIVISION						
Payroll Benefits	112,620	219,200	125,600	206,700	(12,500)	-5.7%
Total Expenditures	**112,620**	**219,200**	**125,600**	**206,700**	**(12,500)**	**-5.7%**
Ending Fund Balance	**139,893**	**127,393**	**139,893**	**139,893**		
Change in Fund Balance	**12,790**	**(12,500)**	**-**	**-**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Benefits	112,620	219,200	125,600	206,700	(12,500)	-5.7%
Total Expenditures	**112,620**	**219,200**	**125,600**	**206,700**	**(12,500)**	**-5.7%**



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Payroll Benefits						
Personnel Benefits	112,620	219,200	125,600	206,700	(12,500)	-5.7%
Total Expenditures	**112,620**	**219,200**	**125,600**	**206,700**	**(12,500)**	**-5.7%**

MISSION STATEMENT

To provide skilled maintenance and repair services for vehicles and equipment for other City departments.

DEPARTMENT SUMMARY

The Equipment Maintenance & Rental Fund is an internal service fund for the City which accounts for maintenance of most of the City vehicles and equipment. The major source of revenue is user fees charged to other City departments for work provided to departments vehicles.

BUDGET HIGHLIGHTS

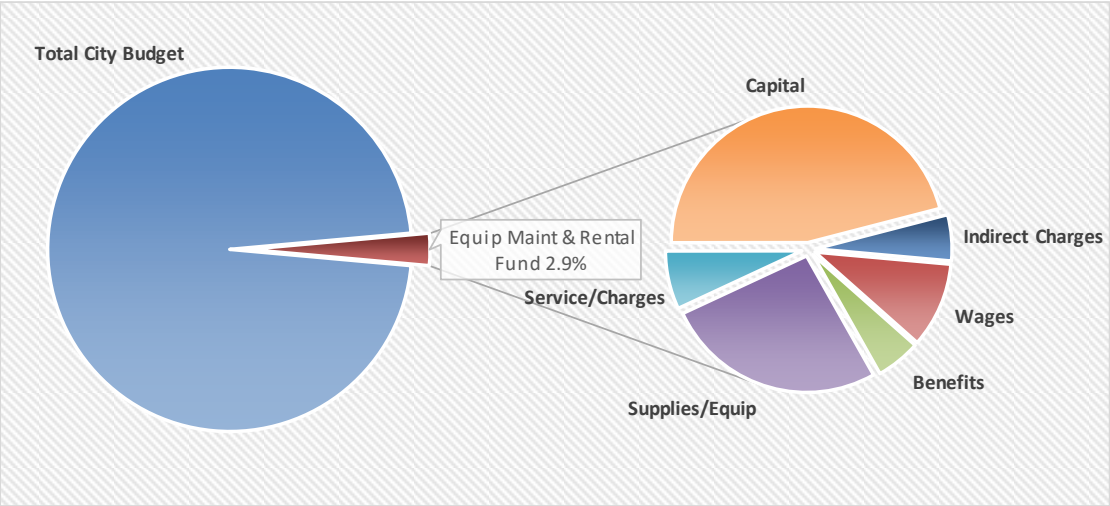
The Equipment Maintenance and Rental fund is scheduled to purchase nearly $358,000 in new equipment in 2021 and includes $90,000 for the PW Maintenance Facility expansion project.

EQUIPMENT MAINTENANCE & RENTAL FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**1,233,509**	**923,082**	**923,082**	**900,116**		
FUNDING SOURCES						
Charges for Goods/Service	599,963	724,610	479,000	685,000	(39,610)	-5.5%
Miscellaneous Revenue	18,909	10,000	7,010	7,000	(3,000)	-30.0%
Other Financing Sources	-	2,000	29	-	(2,000)	-100.0%
Total Revenue	**618,872**	**736,610**	**486,039**	**692,000**	(44,610)	-6.1%
EXPENDITURES BY DIVISION						
Equipment Maint & Rental	929,299	863,720	759,577	929,510	65,790	7.6%
Total Expenditures	**929,299**	**863,720**	**759,577**	**929,510**	**65,790**	**7.6%**
Ending Fund Balance	**923,082**	**678,235**	**900,116**	**456,645**		
Change in Fund Balance	**(310,427)**	**(244,848)**	**(22,967)**	**(443,471)**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Wages	81,965	88,420	87,920	93,960	5,540	6.3%
Benefits	41,592	45,140	46,020	49,310	4,170	9.2%
Supplies/Equip	180,529	243,860	174,016	243,860	-	0.0%
Service/Charges	28,679	59,070	23,200	64,200	5,130	8.7%
Inventory	2,196	-	-	-	-	
Capital	551,900	390,000	390,000	427,500	37,500	9.6%
Indirect Charges	42,438	37,230	38,421	50,680	13,450	36.1%
Total Expenditures	**929,299**	**863,720**	**759,577**	**929,510**	**65,790**	**7.6%**



STAFFING

	2018 Actual	2019 Actual	2020 Budget	2021 Proposed
Superintendent - Streets/Water/EM&R	-	0.20	0.20	0.20
Master Mechanic	1.00	1.00	1.00	1.00
Permit Coordinator	0.05	-	-	-
Total Equipment Maint & Rental	**1.05**	**1.20**	**1.20**	**1.20**

EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Equipment Maint & Rental						
Salary/Wages	81,965	88,420	87,920	93,960	5,540	6.3%
Personnel Benefits	41,592	45,140	46,020	49,310	4,170	9.2%
Office & Operating Supplies	50,798	63,860	50,960	63,860	-	0.0%
Gas, Oil, & Fuel	123,744	172,010	115,066	172,010	-	0.0%
Small Tools & Equipment	5,987	7,990	7,990	7,990	-	
Professional Services	938	3,210	120	8,340	5,130	159.8%
Travel	-	470	470	470	-	0.0%
Insurance	10,662	11,270	-	11,270	-	0.0%
Utilities	1,240	-	-	-	-	
Repair/Maintenance	7,002	23,690	15,890	23,690	-	0.0%
Training and Other Charges	486	5,720	5,720	5,720	-	
Inventory	2,196	-	-	-	-	
Capital	551,900	390,000	390,000	427,500	37,500	9.6%
Rent/Lease	8,351	14,710	1,000	14,710	-	0.0%
Indirect Charges	42,438	37,230	38,421	50,680	13,450	
Total Expenditures	**929,299**	**863,720**	**759,577**	**929,510**	**65,790**	**7.6%**

DEPARTMENT SUMMARY

The Firefighters Pension Fund accounts for the City's obligations toward retired LEOFF 1 firefighters for their pension and medical expenses.

BUDGET HIGHLIGHTS

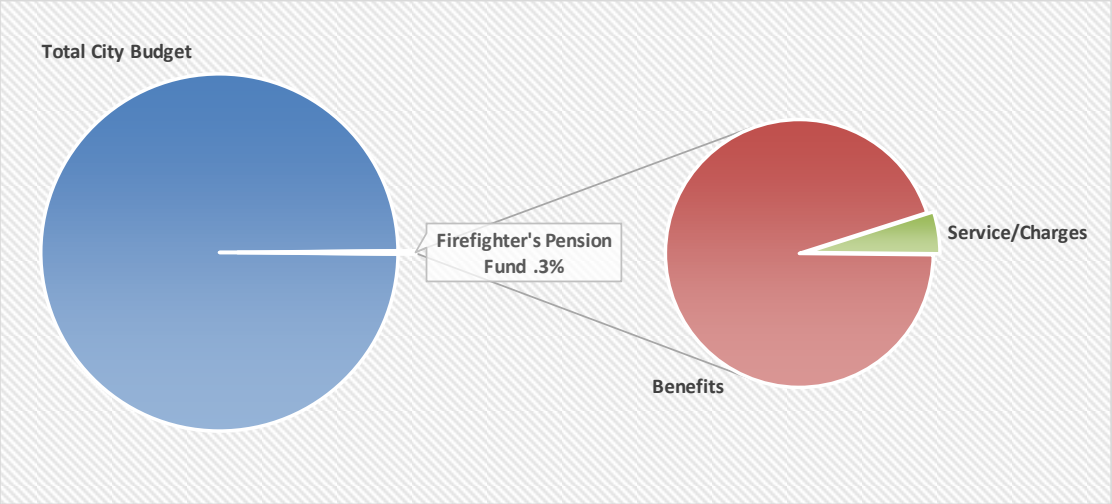
The Firefighters Pension Fund budget for 2021 is the same as the 2020 allocation.

FIREFIGHTER'S PENSION FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**531,864**	**610,461**	**610,461**	**610,513**		
FUNDING SOURCES						
Taxes	51	100	500	100	-	0.0%
Intergovernmental Revenue	9,646	9,650	10,300	9,650	-	0.0%
Miscellaneous Revenue	8,155	8,000	5,000	8,000	-	0.0%
Transfer In	146,818	151,220	72,500	121,220	(30,000)	-19.8%
Total Revenue	**164,671**	**168,970**	**88,300**	**138,970**	**(30,000)**	**-17.8%**
EXPENDITURES BY DIVISION						
Firefighters Pension	86,074	98,570	88,248	98,570	-	0.0%
Total Expenditures	**86,074**	**98,570**	**88,248**	**98,570**	**-**	**0.0%**
Ending Fund Balance	**610,461**	**680,861**	**610,513**	**650,913**		
Change in Fund Balance	**78,597**	**70,400**	**52**	**40,400**		

EXPENDITURES BY CATEGORY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Benefits	86,074	93,570	88,248	93,570	-	0.0%
Service/Charges	-	5,000	-	5,000	-	0.0%
Total Expenditures	**86,074**	**98,570**	**88,248**	**98,570**	-	0.0%



EXPENDITURE DETAILS

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Firefighters Pension						
Personnel Benefits	86,074	93,570	88,248	93,570	-	0.0%
Professional Services	-	5,000	-	5,000	-	0.0%
Total Expenditures	**86,074**	**98,570**	**88,248**	**98,570**	**-**	**0.0%**

DEPARTMENT SUMMARY

The Library Endowment Fund is a permanent fund and accounts for an endowment given to the City for maintenance of the library facility. As a permanent fund, the resources are legally restricted for the purposes as outlined in the endowment. Only earnings on principal, but not the principal, are eligible to be spent as allowed.

BUDGET HIGHLIGHTS

There are no planned expenditures from this fund for 2021.

LIBRARY ENDOWMENT FUND SUMMARY

	2019 Actual	2020 Budget	2020 Estimate	2021 Proposed	$ Change 21 - 20	% Change 21 - 20
Beginning Fund Balance	**116,687**	**120,023**	**120,023**	**122,323**		
FUNDING SOURCES						
Miscellaneous Revenue	3,336	2,700	2,300	2,700	-	0.0%
Total Revenue	**3,336**	**2,700**	**2,300**	**2,700**	**-**	**0.0%**
EXPENDITURES BY DIVISION						
Total Expenditures	**-**	**-**	**-**	**-**	**-**	
Ending Fund Balance	**120,023**	**122,723**	**122,323**	**125,023**		
Change in Fund Balance	**3,336**	**2,700**	**2,300**	**2,700**		

RESOLUTION NO. 1192-0321

A RESOLUTION OF THE CITY OF SHELTON, WASHINGTON UPDATING AND ESTABLISHING THE CITY'S MASTER FEE SCHEDULE FOR FISCAL YEAR 2021

WHEREAS, it is the general policy of the city to establish fees that are reflective of the cost of services provided by the city; and

WHEREAS, it is best practice for the City's Master Fee Schedule be updated at least annually to reflect changes in the cost for certain City services or when changes to the fee schedule are necessary.

WHEREAS, the City's Master Fee Schedule approved through Resolution 1184-1120 on January 19th, 2021 is in need of an update due to a change in City practice since that date; and

NOW, THEREFORE BE IT RESOLVED, by the City Council of the City of Shelton, Washington, as follows:

Section 1. Public Interest. The City Council for the City of Shelton, Washington finds that it is in the public interest to amend and supersede the previously adopted Master Fee Schedule to address costs associated with providing services.

Section 2. Supersede previous Resolutions. This resolution inclusive of Exhibit "A" attached hereto shall supersede in its entirety Resolution 1184-1120 approved by the Shelton City Council and set the City's 2021 Master Fee Schedule.

Section 3. Adjustments. The Shelton City Council amends the Master Fee Schedule to include fees for Fire related activities and other clean up adjustments as included Exhibit "A".

Section 4. Effective date. This Resolution retroactively establishes the fees in the Master Fee Schedule as provided in Exhibit A to be in place effective January 1, 2021.

INTRODUCED on this 16th day of March 2021 and **PASSED** by the City Council of the City of Shelton on this 6th day of April 2021.

Mayor Dorcy

ATTEST:

City Clerk Nault

City of Shelton

525 Cota Street

Shelton, Washington 98584

Master Fee Schedule

RESOLUTION 1192-0321

Exhibit "A"

Type of Permit ***Fee***

General Government

Annual Report	$10.00
Documents provided at Public Hearings Audio Reproduction (when requested within one year of hearing). *Other than Police	$0.00 (within one year) $10.00 (requested after one year of hearing date)
Video Reproduction * Other than Police	$10.00
Copies	$0.15 per page
Scanned copies to electronic format	$0.10 per page
Files or attachments for electronic delivery	$0.05 per four (4) attachments
Gigabyte of electronic records for transmission	$0.10 per gigabyte
Storage media, container, envelope, postage and delivery charge	Actual Cost
R.C.W. 42.56.120 (2) (b) (c) and (e)	
New and renewal of Business License	$50.00
Sexually Oriented Business License	$100.00
Sexually Oriented Manager or Entertainer	$50.00
Taxi Operator License (per operator)	$40.00
Taxi Vehicle License (per vehicle)	$40.00
Returned Check charge	$40.00
VISA/MC chargeback	$35.00
Special Event Permit	$35.00 (An additional $25.00 is due for applications received 25 business days or less prior to the event).
City Special Event services (barricades, garbage, etc.)	$25.00 (per event, per service)
Displays on City message boards	$30.00

Map Reproduction	Color 36 x 48 $18.00 Color 24 x 36 $12.00 Special Order 36 x 48 $30.00 Special Order 24 x 36 $20.00 Black Line $1.00 (Per square foot)

Animal Shelter

Adoption Fee	$80.00
Adoption Fee with Rabies Vaccine	$112.50
Animal License ($5.00 discount for spayed/neutered dogs) No fee for service dogs. Senior citizen 65 yrs. and older 50% off licensing.	$30.00
Rabies Vaccination	$32.50
Surrender of Dog - City residents only	$40.00
Animal Impound (City residents)	First impoundment $50.00 Second impoundment $75.00 Third and subsequent impoundment $150.00 All impound fees shall also be charged unpaid animal license fees.
Boarding fee (over 48 hours)	$15.00 per/day ($30.00 per/day after 48 hours)
Lost license or (transfer of license)	$5.00($10.00)
Non-resident animal impound fee	First impoundment $150.00 Second impoundment $200.00 Third and subsequent impoundment $250.00

Civic Center Rental

Damage Deposit	$300.00
Kitchen	$50.00
Black drapery	$2.00 (per 10 foot section)

Staging	$10.00 (use of 1 – 4 sections)
Equipment Rental	TV Monitor $10.00 Multimedia Projector $20.00
Coffee Service	$25.00 (per gallon)
Meeting rooms	$22.00 per hour for each 600 sq. ft.
Main meeting room	$75.00 per hour

Code Enforcement

Infraction Issued Fees including site visit(s), photos, file creation, documentation, etc. Plus itemized fees to include attorney costs, additional tracked staff time and costs, title searches, service, court filing fees, which may be included in the city request for abatement cost reimbursement per R.C.W. 35.21.955	$68.00 minimum

Parks and Recreation

Parks Master Plan	$20.00
Ballfields and Playfields (Callahan Park/Loop Field.	Field Rental $12.00 per hour Softball Field preparation $20.00 each field
City recreation programs	Actual cost of program
Refunds	Before first class: %100 Before second class: %80 Before third class: %50 After third class: No refunds
Picnic Shelters	$12.50 per hour. Two hour minimum, plus applicable fees for garbage, labor, misc.
Commercial Park (Use by individual, company, corporation, business or similar for the purposes of selling, distributing, or promotion.	$25.00

Police Department

Fingerprints	$60.00
Video Reproduction	Time and material
Audio Reproduction	Time and material
Weapons Permit	$49.25
Weapons Permit renewal	$32.00
Weapons Permit renewal – late application	$42.00
Weapons Permit – replacement	$10.00
Weapons Dealer Permit	$125.00
Excess Alarm fee	$25.00 after three (3) false alarms

Community Development – Planning

Address Assignment	$100.00
Annexation	$1,200.00 plus $40.00 per acre or fraction thereof.
Appeal to the Hearing Examiner	Individual - $1,000.00 H.O.A. - $500.00
Boundary Line Adjustment	$315.00
Comprehensive Plan Amendment	$2,600.00
Comprehensive Plan document	$35.00
Conditional Use Permit	$2,700.00
SEPA	$300.00
EIS	$1,400.00 plus consultant costs
Fence	$75.00 residential $180.00 commercial
Forest Practices Application	$350.00
Plat/Binding Site Plan	Preliminary: $3,300.00 plus $40.00 per lot Extension: $200.00 Final: $500.00 Administrative Amendments: $200.00 Public Hearing Amendments: $1,500.00

Planned Unit Development	Preliminary: $3,000.00 plus $25.00 per lot Extension: $200.00 Final: $500.00 plus $30.00 per lot Administrative Amendments: $200.00 Public Hearing Amendments: $1,500.00
Parcel combination	$320.00
Pre-submittal conference	$150.00
RV/Tent Occupancy Application	$45.00
Short Plat	$920.00
Site Plan Review	$1,200.00
Site Plan amendment	$110.00
Variance Permit	$2,700.00
Zone Change	$2,400.00
Zoning Letter	$45.00
Zoning Ordinance Text Amendment	$435.00
Signs	$50.00 when no building permit required $55.00 per square foot valuation with building permit
Shoreline Specific applications	
Shoreline Management Program document	$35.00
Shoreline Statement of Exemption	$170.00
Substantial Development Permit	$560.00 Public Hearing Required: $2,300.00
Shoreline Conditional Use Permit	$2,300.00
Shoreline Variance	$2,300.00

Community Development – Building

After Hours Inspections (Regular business hours 8am to 5pm Monday through Friday).	$70.00 per hour (two hour minimum)
Re-inspection fee	$70.00 per hour (one hour minimum)

Inspections for which no fee is specifically indicated.	$70.00 per hour (one half hour minimum)
Additional plan review required for plan changes.	$70.00 per hour (one half hour minimum)
Note: For the building fees above, or the total; hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved. Actual costs include administrative and overhead costs.	
Building Valuation *NOTE: all footnotes of Building Valuation Data as published by ICC shall apply	1) New construction, and remodels greater than 50%: of "R" occupancies The City of Shelton will utilize the International Code Council's "Building Valuation Data Table" on a two year lag as published in the August edition of the Building Safety Journal. The square footage valuations from this table will be implemented on the first day of September following publication and remain in force through August of the following year. 2) Private garages, storage buildings, green houses and similar structures shall be valued as Utility, Miscellaneous 3) Remodels less than 50% shall be valued at 50% of the table value from the ICC Building Valuation Data for occupancy specified.
Bulkheads	$20.00 per cubic foot
Building Permit NOTE: Washington State surcharge applies: $25.00 Commercial, $6.50 Residential.	Valuation: $1.00 to $500.00: **$25.00** $501.00 to $2,000.00: **$25.00 and $3.00 per each additional $100 or fraction thereof and including $2,000** $2,001.00 to $25,000.00: **$70.00 and $14.00 for each additional $1,000 or fraction thereof to and including $25,000** $25,000.00 to $50,000.00: **$390.00 and $10.00 for each additional $1,000 or fraction thereof to and including $50,000**

	$50,001.00 to $100,000.00: **$640.00 and $7.00 for each additional $1,000 or fraction thereof to and including $100,000** $100,001.00 to $500,000.00: **$1,000.00 and $6.00 for each additional $1,000 or fraction thereof to and including $500,000** 500,001.00 to $1,000,000.00: **$3,400.00 and $5.00 for each additional $1,000 or fraction thereof to and including $1,000,000** $1,000,000 and up**: $5,700 and $7.00 for each additional $1,000 or fraction thereof to and including $1,000,000**
Maximum Building Permit fee	$50,000.00
Early Foundation Permit/Early start agreement (Early foundation permit for commercial/industrial building will be deducted from permit fee upon full submittal.	25% of building permit fee
Demolition permit	$120.00 plus State surcharge
Reroof – residential only	$115.00
Reroof –commercial per square valuation is used to determine valuation	**$275.00 per square** - Class A&B (hotmop/torchdown) **$250.00 per square** - Composition(roll/3 tab) **$325.00 per square** - Composition with plywood replacement **$300.00 per square** - Metal **$275.00 per square** - Shake **$300.00 per square** - Shingle
Windows	$25.00 first window, $7.00 for each additional window

Reissuance of lost permit card	$30.00
Reissuance of plan package	$140.00
Stock Plans	50% of the ICC fee
Solid Fuel/Gas insert	$140.00
Hearing Examiner appeal	$2,400.00
Request for Reconsideration	$500.00
Investigation fee	$70.00 per hour
Mechanical Permit	Each mechanical permit: **$25.00** **FURNACE:** For issuing each supplemental permit for which the original permit for the original permit has not expired, been canceled, or final: **$8.00** For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance, up to and including 100,000 Btu/h (29.3kW): **$16.00** For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance, over 100,000 Btu/h (29.3 kW): **$20.00** For the installation or relocation of each floor furnace, including vent: **$16.00** For the installation or relocation of each suspended heater, recessed wall heater on floor-mounted unit heater: **$16.00** **Appliance Vents:** For the installation, relocation or replacement of each appliance vent and not

	included in an appliance permit: **$8.00** **Repairs or Additions:** For the repair of, or addition to each heating appliance, refrigeration unit, cooling unit, absorption unit, or each heating, cooling, absorption or evaporative cooling system, including installation of controls regulated by the Mechanical Code: **$15.00** **Boilers, Compressors, and Absorption Systems:** For the installation or relocation of each boiler or compressor to and including 3 horsepower (10.6 kW), or each absorption system to and including 100,000 Btu/h (29.3 kW): **$15.00** For the installation or relocation of each boiler or compressor over three horsepower (10.6 kW) to and including 15 horsepower (52.7 kW), or each absorption system over 100,000 Btu/h (29.3 kW) to and including 500,000 Btu/h (146.6 kW): **$30.00** For the installation or relocation of each boiler or compressor over 15 horsepower (52.7 kW) to and including 30 horsepower (105.5 kW), or each absorption system over 500,000 Btu/h (146.6 kW) to and including 1,000,000 Btu/h (293.1 kW): **$40.00** For the installation or relocation of each boiler or compressor over 30 horsepower (105.5 kW) to and including 50 horsepower (176 kW), or each absorption system over 1,000,000 Btu/h (293.1 kW) to and including 1,750,000 Btu/h (512.9 kW): **$60.00**

	For the installation or relocation of each boiler or compressor over 50 horsepower (176 kW), or each absorption system over 1,750,000 Btu/h (512.9 kW): **$100.00** **Air Handlers:** For each air-handling unit to and including 10,000 cubic feet per minute (cfm) (4719 L/s), including ducts attached thereto: **$12.00** Note: This fee does not apply to an air-handling unit, which is a portion of a factory-assembled appliance, cooling unit, evaporative cooler or absorption unit for which a permit is required elsewhere in the Mechanical Code for each air-handling unit over 10,000 cfm (4719 L/s): **$20.00** **Evaporative Coolers:** For each evaporative cooler other than portable type: **$12.00** **Ventilation and Exhaust:** For each ventilation fan connected to a single duct: **$8.00** For each ventilation system which is not portion of any heating or air-conditioning system authorized by a permit: **$12.00** For the installation of each hood which is served by mechanical exhaust, including the ducts for such hood: **$12.00** **Incinerators:** For the installation or relocation of each domestic-type incinerator: **$20.00**

	For the installation or relocation of each commercial or industrial-type incinerator: **$16.00** **Miscellaneous:** For each appliance or piece of equipment regulated by the Mechanical Code but not classed in other appliance categories, or for which no other fee is listed in the table: **$12.00**
Mobile/Manufactured Home set-up	Individual Lot: $472.00 Park Set: $165.00 NOTE: Includes 4x4 landing
Mobile Home Title Eliminations	$30.00
Plan Review (All types other than Mechanical) *NOTE: Commercial kitchen based on project valuation of engineer's written estimate.	65% of Permit fee Mechanical only: 25% of Permit fee
Plumbing Permit	Each permit: **$25.00** *NOTE: Unit Fee Schedule in addition to above* For each plumbing fixture on one trap or a set of fixtures on one trap (including water, drainage piping, and backflow protection therefore): **$8.00** For each building sewer and each trailer park sewer: **$16.00** Rainwater systems per drain (inside building): **$8.00** For each cesspool where permitted: **$27.00** For each private sewage disposal system: **$45.00** For each water heater and/or vent: **$8.00**

	For each industrial waste pretreatment interceptor including its trap and vent, except kitchen-type grease interceptors functioning as fixture traps: **$8.00** For each installation, alteration or repair of water piping and/or water treating equipment, each: **$8.00** For each repair or alteration of drainage or vent piping, each fixture: **$8.00** For each lawn sprinkler system on any one meter including backflow protection devices therefore: **$8.00** For each backflow protective device other than atmospheric type vacuum breakers: • 2 inch (51 mm) diameter and smaller: **$8.00** • over 2 inch (51 mm) diameter: **$16.00** Atmospheric-type vacuum breakers: • 1 to 5: **$5.00** • over 5, each: **$2.00**
Propane Tanks and Piping (above and below ground)	$12.00 per tank
Refund: 2015-IBC Section 109.6 / 2015-IRC Section R108.5	The building official may authorize refunding on not more than fifty percent (50%) of the permit fee paid when no work has been done under a permit issued in accordance with this code. The building official may authorize refunding of not more than seventy-five percent (75%) of the plan review fee paid when an applicant for a permit for which a plan review fee has not been paid is withdrawn or canceled before any plan reviewing is done. The building official shall not authorize refunding of any fee paid except on written application filed by the

	original permittee no later than 180 days after the date of fee paid.

Fire – Development Review

Commercial Site Plans	$390.00
Subdivision or Planned Residential Development	$328.00
Pre-Application Conference	$95.00
Other Land Use Application	$264.00

Fire – Alarm Fees

Fire Alarm System - Minor Alteration	$100.00
Fire Alarm Zoned System - One Zone	$296.00
Each Additional Zone	$136.00
Fire Alarm Addressable System - 1 to 20 Devices	$296.00
Each Additional Device	$4.00

Fire - Suppression

Commercial Cooking Extinguishing System/Protection	$252.00
Fire Pumps and Private or Dedicated Fire Hydrant Systems	$372.00
Fire Hydrant - Witnessed Flow Test (1-4) Hydrants	$100.00
Fire Hydrant - Each Additional Hydrant	$40.00
Fire Sprinkler - Alteration to Existing System(s) (>4 heads)	$200.00
Fire Sprinkler - New System - NFPA 13 (2 inspections)	$472.00
NFPA 13 - Each Additional Riser	$472.00
Fire Sprinkler - New System - NFPA 13D (Single Family)	$200.00
Fire Sprinkler - New System - NFPA 13R (Per Building)	$390.00
Other Extinguishing Systems	$372.00
Standpipe System	$200.00
Underground Fire Sprinkler Mains (2 inspections)	$252.00

Fire - Other

Fireworks Display	$208.00
Investigation Fee (work started without a permit)	Double Permit Fee
Other Plan Reviews or Permits Required by the IFC and/or Municipal Code $100.00 Per Hour Review + $100.00 per Hour Inspection	Calculated

Re-inspection Fees	$100.00
Revision to Plan Previously Submitted - $100.00 per Hour	Calculated
Use of Consultant for Plan Review and Inspection	Actual Cost
Tents/Temporary Membrane (greater than 400 SF)	$100.00

Public Works

Right-of-Way and Obstruction Permits (SMC Chapter 12.20)	Class 1: Short term maintenance permit: $45.00 Class 2: Temporary Construction of permit: $65.00, plus inspection fees Class 3: Fixture and Encroachment Permit: $65.00, Sidewalk café, add $280.00/hr review fee. Class 3 Permit $15.00 annual renewal fee Class 4: Heavy Right-of-Way Use Permits: Fee calculated per SMC Sections 12.20.030.4 & 12.20.040.D
Fine for Work in Right of Way without Permits	$250.00 plus standard permit fee
Special Development Studies: Traffic Impact Reports, Hydrology studies, and similar.	Contract Consultant fees
Traffic Impact Fee	$3,735.71 for SFR/varies based on use. ORD. 1907-1017 Exhibit B
Public Improvement Plan Review Fee	3% of Estimated Cost of Public Improvements
Public Improvement Inspection Fee	3% of Estimated Cost of Public Improvements
Latecomer Agreement	$280.00
Right-of-Way vacation	$500.00
Utility Connection Application Permit Fee a. Water & Reclaimed Water Connections b. Sewer & Storm Drainage Connections	 $170.00 plus applicable GFC $65.00 plus applicable GFC
Class A Bio-Solids Fertilizer fee	$20.00 per 1.66 cy bag

Sewer GFC

Water Meter Size	Weighting Factor	Fee
3/4"	1.00	$3,258.00
1”	2.50	$8,145.00
1.5”	5.00	$16,290.00
2”	8.00	$26,064.00
3”	16.00	$48,870.00
4”	25.00	$81,495.00
6”	50.00	$162,900.00
8”	80.00	$260,640.00

- Developments pursuant to SMC 18.02.110 shall be charged twenty-five percent (25%) of the equivalent charge above.

Sewer GFC (Grandview Heights only)

Water Meter Size	Weighting Factor	Fee
3/4“	1.00	$1,629.00
1“	2.50	$4,072.00
1.5”	5.00	$8,145.00
2”	8.00	$13,032.00
3”	16.00	$24,435.00
4”	25.00	$40,725.00
6”	50.00	$81,495.00
8”	80.00	$130,320.00

Reclaimed Water

Water Meter Charge	Fee
3/4" Meter	$238.16
1”	$354.91
1.5”	$760.43
2”	$1,029.38
3”	$2,018.65
4”	$3,170.16
6”	$4,298.21
Above 6”	$6,095.57

Reclaimed Water GFC

Water Meter Size	Weighting Factor	Fee
3/4”	1.00	$326.00
1”	2.50	$815.00
1.5”	5.00	$1,629.00
2”	8.00	$2,606.00
3”	16.00	$4,887.00
4”	25.00	$8,150.00
6”	50.00	$16,290.00
8”	80.00	$26,064.00

Water Fees

Water Turn off for other than non-payment (regular business hours)	$0.00
Water Turn off for non-payment	$100.00
Water Turn off (after business hours)	$100.00
Water Turn on (regular business hours)	$0.00
Water Turn on (after business hours)	$100.00
Annual Hydrant Water Use Permit Application Fee (from issuance date)	$70.00
Hydrant Meter, Gate Valve, and Wrench Deposit and Rental Fee	$750.00 refundable deposit $75 per month rental fee
Hydrant Water Billing and Water Use Charge and PWM Hydrant Load/Use Charge	$45.00 quarterly billing charge, plus commercial water consumption charge per SMC 15.28.050
Fine for connection to hydrant without permit	$1,000.00
Fine for connection to hydrant without meter	$500.00
Fine for unauthorized connection/disconnection of water service	$500.00

Water Meter Charge

3/4" meter	$238.16
1” meter	$354.91
1.5” meter	$760.43
2” meter	$1,029.38
3” meter	$2,018.65
4” meter	$3,170.16

6” meter	$4,298.21
Above 6” meter	$6,095.57

Water Meter GFC

Water Meter Size	Weighting Factor	Fee
3/4”	1.00	$1,260.00
1”	2.50	$3,150.00
1.5”	5.00	$6,300.00
2”	8.00	$10,080.00
3”	16.00	$18,900.00
4”	25.00	$31,500.00
6”	50.00	$63,000.00
8”	80.00	$100,800.00

- Developments pursuant to SMC 18.02.110 shall be charged twenty-five percent (25%) of the equivalent charge above.

Misc.

Commercial Fire Line	No Charge
Backflow Testing	No Charge

Private Development ESC & Stormwater:

ESC & Storm plan review, single family	$75.00
ESC & Storm plan review all other sites	$320.00
Final grading, ESC, & Stormwater inspections	$80.00

City of Shelton Fund Balance Reserves

Policy:

The objective of this policy is to provide general guidance for the establishment and continued maintenance of Fund Balance Reserves. This policy establishes the amounts the City will strive to maintain in Fund Reserves, how the Reserves will be funded, and the conditions under which Reserves may be used.

The City classifies available fund balances for specific purposes in accordance with Government Accounting Standards Board (GASB) Statement #54 as follows:

- **Non-spendable** – Resources that cannot be spent because of form (e.g. inventory, prepaid amounts) or because they must be maintained intact.

- **Restricted** – Resources with limitations imposed by creditors, grantors, laws, regulations, or enabling legislation.

- **Committed** – Resources that can only be used for specific purposes pursuant to constraints imposed by formal action of the highest level of decision-making authority – the City Council. These amounts cannot be used for any other purpose unless the City Council removes or changes the specified use by taking the same action it employed to previously commit the amounts.

- **Assigned** – Resources that are intended to be used for specific purposes, but is neither restricted nor committed.

- **Unassigned** – Resources that are not non-spendable, restricted, committed or assigned to specific purposes.

Fund balance is an important indicator of a city's financial position and maintaining reserves is a prudent management practice. Adequate fund balances are maintained to allow the city to continue providing services to the community in case of unexpected emergencies, unfunded mandates, and/or economic downturns. They may also be used to meet seasonal cash flow shortfalls as needed.

As such, the City has determined targeted fund balances for specific funds as outlined in the table below:

Fund	Fund Balance Policy
General Fund	Sixteen Percent (16%) of Current-Year Budgeted Expenses
Street Fund - Unrestricted	Sixteen Percent (16%) of Current-Year Budgeted Expenses
Firefighters Pension Fund	Twice the IBNR (Incurred But Not Reported) Estimate per the annual Actuarial Study plus $100,000
Capital Resources Fund	$150,000
Water Operating Fund	Twenty Percent (20%) of Current-Year Budgeted Operating Expenses
Sewer Operating Fund	Twenty Percent (20%) of Current-Year Budgeted Operating Expenses
Storm Drainage Operating Fund	Twenty Percent (20%) of Current-Year Budgeted Operating Expenses

The City's Finance Department is charged with ensuring compliance with all fund balance policy requirements.

General Fund:

In an effort to ensure the continuance of sound financial management of public resources, the City of Shelton's Unassigned General Fund Balance will be maintained to provide the city with sufficient working capital and a comfortable margin of safety to address emergent needs, sudden loss of revenue, and unexpected downturns without borrowing.

This policy establishes the amounts the city will strive to maintain in its General Fund balance, the conditions under which fund balance may be spent, and the method by which fund balances will be restored. These amounts are expressed as goals, recognizing that fund balance levels can fluctuate from year to year in the normal course of operations for any local government.

The city will strive to maintain a General Fund "Operating Reserve" with an upper goal of sixteen percent (16%) of the adopted current-year budgeted General Fund expenditures, less any one-time items. It is the intent of the city to limit the use of

Unassigned General Fund balances to addressing unanticipated, non-recurring needs or known and planned future obligations.

The Operating Reserve is intended to be a reserve for unexpected events such as unfunded mandates, the failure to receive expected revenues, the continuance of critical city services due to unanticipated events, or to offset the unexpected loss of a significant funding source for the remainder of the fiscal year. Any use of Operating Reserve funds that reduce the fund balance below the minimum desired level must include a repayment plan to restore the Operating Reserve to the minimum desired level.

Fund balances shall not normally be applied to recurring annual operating expenditures. Unassigned balances may, however, be used to allow time for the city to restructure its operations in a deliberate manner, but such use will only take place in the context of long-term financial planning.

Funds in excess of the reserves described above will be Unassigned General Fund Balance, unless otherwise assigned in accordance with GASB Statement #54, and may be considered to supplement "pay as you go" capital outlay and other one-time expenditures. These funds may not be used to establish or support costs that are recurring in nature.

The Finance Director is authorized to classify available fund balance for specific purposes in accordance with Government Accounting Standards Board Statement #54. It is the policy of the city that expenditures for which more than one category of fund balance may be used, the order of use will be: Restricted Fund Balance, Committed Fund Balance, Assigned Fund Balance, and Unassigned Fund Balance.

Other Funds:

In a manner similar to the General Fund, the City desires to maintain a prudent level of financial resources in its other funds, including Enterprise Funds and Special Revenue Funds to guard its stakeholders against service disruptions in the event of unexpected temporary revenue shortfalls or unpredicted one-time expenses. Fund reserves are accumulated and maintained to provide stability and flexibility to respond to unexpected adversity and/or opportunities.

It is the intent of the City to limit use of these fund reserves to address unanticipated, non-recurring needs. Reserves shall not normally be applied to recurring annual operating expenses. Reserves may, however, be used to allow time for the City to restructure its operations in a deliberate manner (as might be required in an economic downturn), but such use will only take place in the context of long-term financial planning.

Unless otherwise noted, all City funds must be managed to maintain at least a positive fund balance.

Pooled Cash Method:

In order to provide liquidity adequate to meet the needs and demands of providing government services, including unanticipated reductions in revenues or unplanned increases in expenses, Reserve levels will be maintained and managed through the Pooled Cash method in such a way as to minimize short-term borrowing. This reduces overall cost to taxpayers by minimizing interest expense. The reserves are intended to support this effort and counterbalance cycles that are experienced in fee and other revenue collections.

Funding the Reserves:

Funding of reserve targets will generally come from excess revenues over expenses or one-time revenues.

Excess of Reserves:

Reserves for specific funds are restricted for the activities of that fund under GASB principles, with the exception of the General Fund, which can be used for any good government purpose. In the event fund reserves exceed the minimum balance requirements at the end of each fiscal year, any excess reserves may be used in the following ways:

1. Priority will be given to those items that relieve budget or financial operating pressure in future periods;

2. Appropriated to lower the amount of bonds or contributions needed to fund capital projects in the City's CIP (Capital Improvement Program);

3. One-time expenses that do not increase recurring operating costs that cannot be funded through current revenues. Emphasis will be placed on one-time uses that reduce future operating costs; or

4. Start-up expenses for new programs, provided that such action is approved by the City Council and is considered in the context of multi-year projections of revenue and expenses as prepared by the City's Finance Department.

Periodic Review:

This fund balance policy must be adopted by the City Council. The policy will be reviewed periodically by the Finance Department and modifications must be submitted to and approved by the Council.

Debt Management

Policy:

The objective of this policy is to provide general guidance for the issuance and management of all City debt. The City issues debt in accordance with the Revised Code of Washington (RCW), in particular chapters 39.36, 39.46, and 39.53, along with all other City, State, and federal laws, rules, and regulations. Further, this policy establishes criteria to protect the City's financial integrity while providing a mechanism to fund the City's capital needs. The City will only utilize debt financing to fund capital improvement projects that cannot be reasonably funded on a pay-as-you-go basis.

The City's Finance Department is charged with ensuring compliance with all debt management policy requirements.

Debt Issuance:

State law (RCW 39.36.020) allows for the issuance of general obligation (GO) debt, through a public vote, of up to 7.5% of the City's assessed property valuation. The limit of 7.5% of assessed valuation for GO debt is divided between three different use types: 1) 2.5% for municipally owned water, sewer, or electric facilities; 2) 2.5% for open space and parks; and 3) 2.5% for general government purposes. Within the 2.5% limit for general government purposes, State law allows the Council to issue debt without a vote of the people. This non-voted debt (also called councilmanic debt) cannot be greater than 1.5% of the assessed property valuation of the jurisdiction.

All City projects proposed to be financed through debt must have a full analysis of a) alternative methods of financing the project, b) future operating and maintenance costs, including debt service expense, associated with the project, c) projected cash inflows which can reasonably be applied to reduce the amount being financed, and d) projected cash outflows for construction/equipment in order to ensure arbitrage compliance.

The City will, unless otherwise justified, use tax-exempt bond proceeds within the established time frame pursuant to the bond ordinance, contract, or other document to avoid arbitrage. The City will maintain a system of recordkeeping and reporting to meet the arbitrage rebate compliance requirement of the IRS (Internal Revenue Service, IRC 148) regulation. For each bond issue not expended within the established time frame, the recordkeeping will include tracking investment earnings on bond proceeds, calculating rebate payments, and remitting any rebate earnings to the federal government in a timely manner in order to preserve the tax-exempt status of the outstanding debt obligation.

The City will repay principal plus interest in accordance with the payment terms of the bond or contract. Furthermore, the City will comply with all bond or contract covenants. This includes, but is not limited to, any undertakings to provide ongoing disclosure and notice of certain listed events under SEC (Securities and Exchange Commission) Rule 15C2-12. Annual disclosure will take the form of the City's Annual Financial Report as well as other information required by the bond or contract that is not reasonably contained in the annual report. The City will comply with all post-issuance compliance policies and procedures related to Federal tax law and policies and procedures relating to initial and ongoing disclosure.

Prior to any general obligation bond proposition being placed before the voters, the capital project under consideration must, unless otherwise justified and have found to be in the best interest of the City, have been included in the City's Capital Improvement Plan. The source of funds for the project should reflect the intended use of bond financing.

Debt cannot be issued for a longer maturity than a conservatively estimated useful life of the asset to be financed.

The City will maintain good communications with bond rating agencies and investors about its fiscal condition. The City will provide full disclosure on financial reports and in disclosure documents.

Short-term debt:

The City may use short-term debt, defined as a period not to exceed three years, to fund cash flow needs, which may be caused by a delay in receipting tax revenues or issuing long-term debt. The City will not issue short-term debt for current operations.

The City may issue interfund loans rather than issuing outside debt to meet short-term cash flow needs. The issuance of an interfund loan will be permissible only after an analysis of the loaning fund(s) indicate(s) that excess funds are available and the use of these funds will not impact the loaning fund(s) current operations or constitute a permanent diversion of funds. All interfund borrowing will bear interest based upon at least the prevailing LGIP (Local Government Investment Pool) rate. Interfund debt issuance must comply with SMC X.XX.XXX.

As allowed in SMC X.XX.XXX, the City's Finance Director has the authority to approve short-term interfund loans for a period not to exceed three calendar months. The City Manager has the authority to approve loans for a period not to exceed 12 calendar months. The Finance Director shall notify the City Council of any use of directorial or managerial approved loans at the first reasonable opportunity.

Long-term debt:

The City will issue long-term debt, defined as a period of time greater than three years, for capital projects, which cannot reasonably be financed on a pay-as-you-go

funding strategy from anticipated cash flows. Acceptable uses of bond proceeds are one-time capital projects that can be capitalized and depreciated in accordance with the City's accounting principles and/or bond covenants. Refunding debt is also an acceptable use. See refunding debt section below.

The City may issue interfund loans rather than issuing outside debt instruments as a means of financing capital improvements. The issuance of an interfund loan will be permissible only after an analysis of the loaning fund(s) indicate that excess funds are available and the use of these funds will not impact the loaning fund(s) current operations or constitute a permanent diversion of funds. All interfund borrowing will bear interest based upon at least the prevailing LGIP (Local Government Investment Pool) rate. Interfund debt issuance must comply with SMC X.XX.XXX.

The decision to use an interfund loan rather than outside debt to fund capital projects will be based on which is deemed to be the most cost effective approach to meet City capital needs. The City's Finance Department is responsible for making such an assessment.

The City will not issue long-term debt for current operational needs.

The following is a description of the types of long-term debt the City may issue.

Limited Tax General Obligation Bonds (LTGO): LTGO debt is backed by the full faith and credit of the City. These bonds can be issued without a vote of registered voters but are limited in that debt service payments must be paid from existing city revenue sources. Furthermore, LTGO's are also limited in the amount and percentage of assessed valuation as defined by the City's debt capacity in accordance with state law.

Unlimited Tax General Obligation Bonds (UTGO): UTGO debt is backed by the full faith and credit of the City. These bonds can only be issued when authorized by a 60% majority vote of registered voters (meeting the minimum voter turnout requirement). The purpose of the vote is to approve an excess tax levy (as a completely new source of revenue) to pay the debt service.

Lease Obligation: Lease debt can be in the form of a lease-purchase arrangement or a certificate of participation. With this type of contractual obligation, a third party, typically the lessor, issues certificates or bonds where the principal and interest payments to investors are guaranteed by the lease payments made by the City. Depending on the security for the lease payments, lease debt may be repaid from existing City revenue sources, voter-approved property tax, or revenues of an enterprise.

Revenue Bonds: Revenue bonds are used to finance construction or improvements to facilities of enterprise systems operated by the City in

accordance with the Capital Improvement Program and are generally payable from the enterprise. No taxing power or general fund pledge is provided as security. Unlike general obligation bonds, revenue bonds are not subject to the City's statutory debt limitation nor is voter approval required.

Special Assessment Bond: Also referred to as Local Improvement District (LID) bonds, this type of debt is used to finance capital improvements that benefit property owners within the LID. LID debt is repaid from annual assessments paid to the City. LIDs are formed by the Council following the process outlined in State statutes. The cost is borne only by those who will benefit most from the improvement. LID debt is not part of the debt capacity calculation.

Other Debt Instruments: Instruments such as Public Works Trust Fund loans or other financing contracts issued through the State of Washington, bond anticipation notes (BAN's), tax anticipation notes (TAN's), bank qualified loans, and/or other legal debt issues may be incurred as allowed by law.

Additionally, the City may issue interfund loans rather than outside debt instruments to fund capital projects or meet short-term cash flow needs.

Professional Services:

The City's Finance Department will be responsible for the solicitation and selection of professional services as necessary to administer debt financing. Professional service providers necessary to issue debt may include, but are not limited to: bond counsel, financial advisor, underwriters, and fiscal agent.

Refunding Debt:

Debt refunding is typically done to take advantage of lower interest rates. Refunding bonds are an acceptable use of bond proceeds provided that, and unless otherwise justified and found to be in the best interest of the City, a) the net present value (NPV) of the savings is at least 3% and b) the final maturity date is not extended.

Debt Issuance Process:

The Finance Director will determine the method of sale best suited for each issue of debt (competitive sale, negotiated sale, or private placement).

The Finance Director and bond counsel will coordinate their activities and review all debt issuance to ensure that all securities are issued in compliance with state and federal legal and regulatory requirements by the State and the Federal Government's laws, rules and regulations.

For each issue, the City will evaluate the costs and benefits of bond insurance or other credit enhancements. Any credit enhancement purchases by the City must be competitively procured.

The Finance Director may institute procedures to implement this policy and other bond covenants and provisions related to State and federal law applicable to the City's debt.

Council approval is required prior to the issuance of debt, except where Council authority has been delegated in SMC X.XX.XXX.

Periodic Review:

This debt policy must be adopted by Council. The policy will be reviewed periodically by the Finance Department and modifications must be submitted to and approved by the Council.

Water System Comprehensive Plan Update

City of Shelton

August 3, 2021

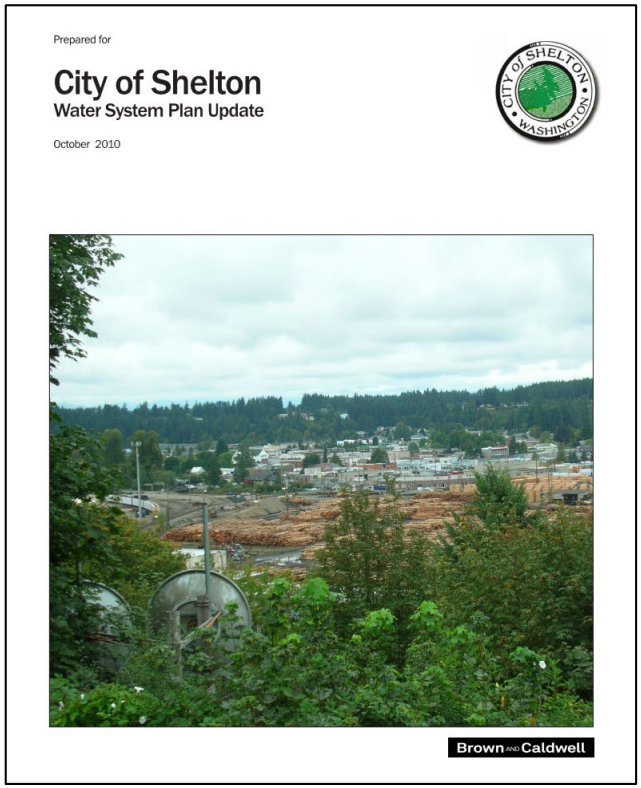
// Agenda

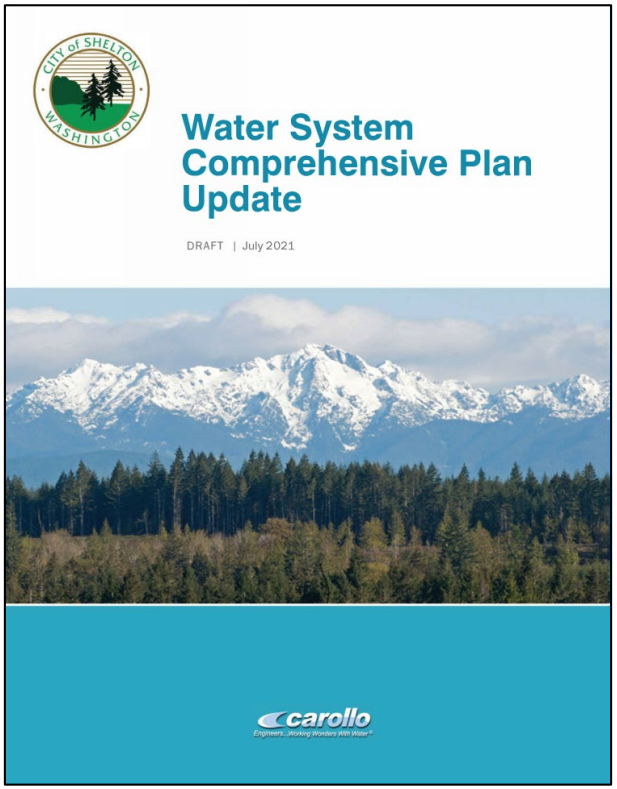
- Background Information
- Chapter 1 – Introduction
- Chapter 2 – Water Requirements
- Chapter 3 – Description of the Water System
- Chapter 4 – Water Conservation Plan
- Chapter 5 – System Analysis
- Chapter 6 – Water Quality
- Chapter 7 – Source Water Protection
- Chapter 8 – Operations and Maintenance
- Chapter 9 – Capital Improvement Program
- Chapter 10 – Financial Plan
- Next Steps

// Thank you to the City staff members who have contributed to this project

- Jay Harris, Public Works Director.
- Ken Gill, City Engineer.
- Mike Albaugh, Street, Water, EM&R Superintendent.
- Matt Deemer, Water Field Supervisor.

// This Plan is an update to the 2010 Water System Plan





// The Plan documents the current status of the water system and evaluates future needs

- In accordance with WAC 246-290-100, this Plan:
  - Defines the City's water service area.
  - Describes the existing water system.
  - Established minimum performance criteria for the system.
  - Projects future demands within the service area.
  - Identifies system deficiencies.
  - Presents a capital improvements plan.
  - Offers a financing and implementation plan.

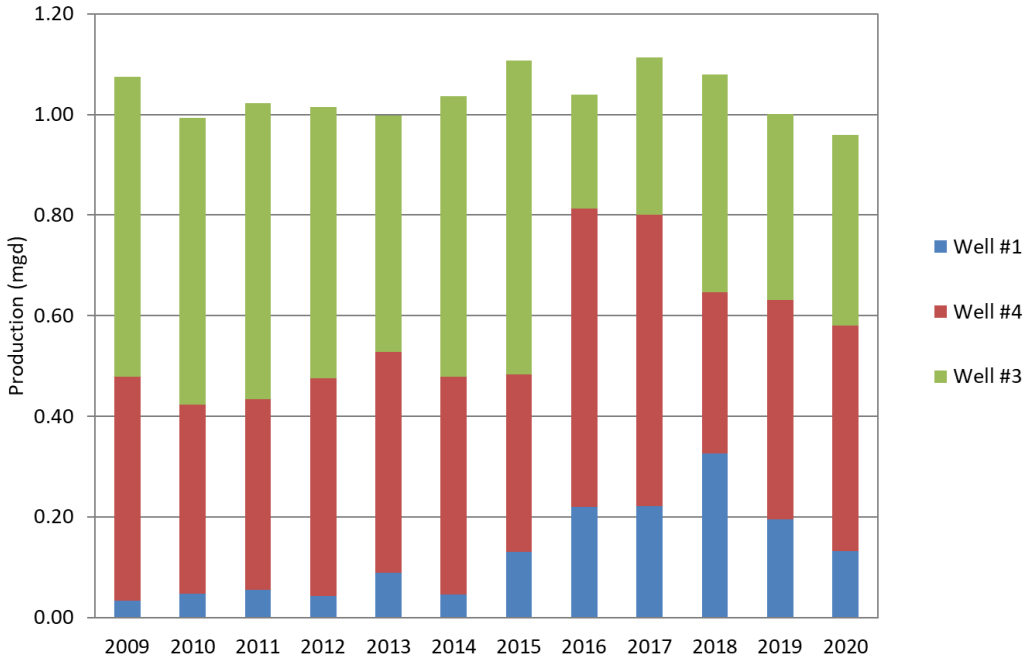
Chapter 1 – Introduction

// Chapter 1 outlines important Plan content

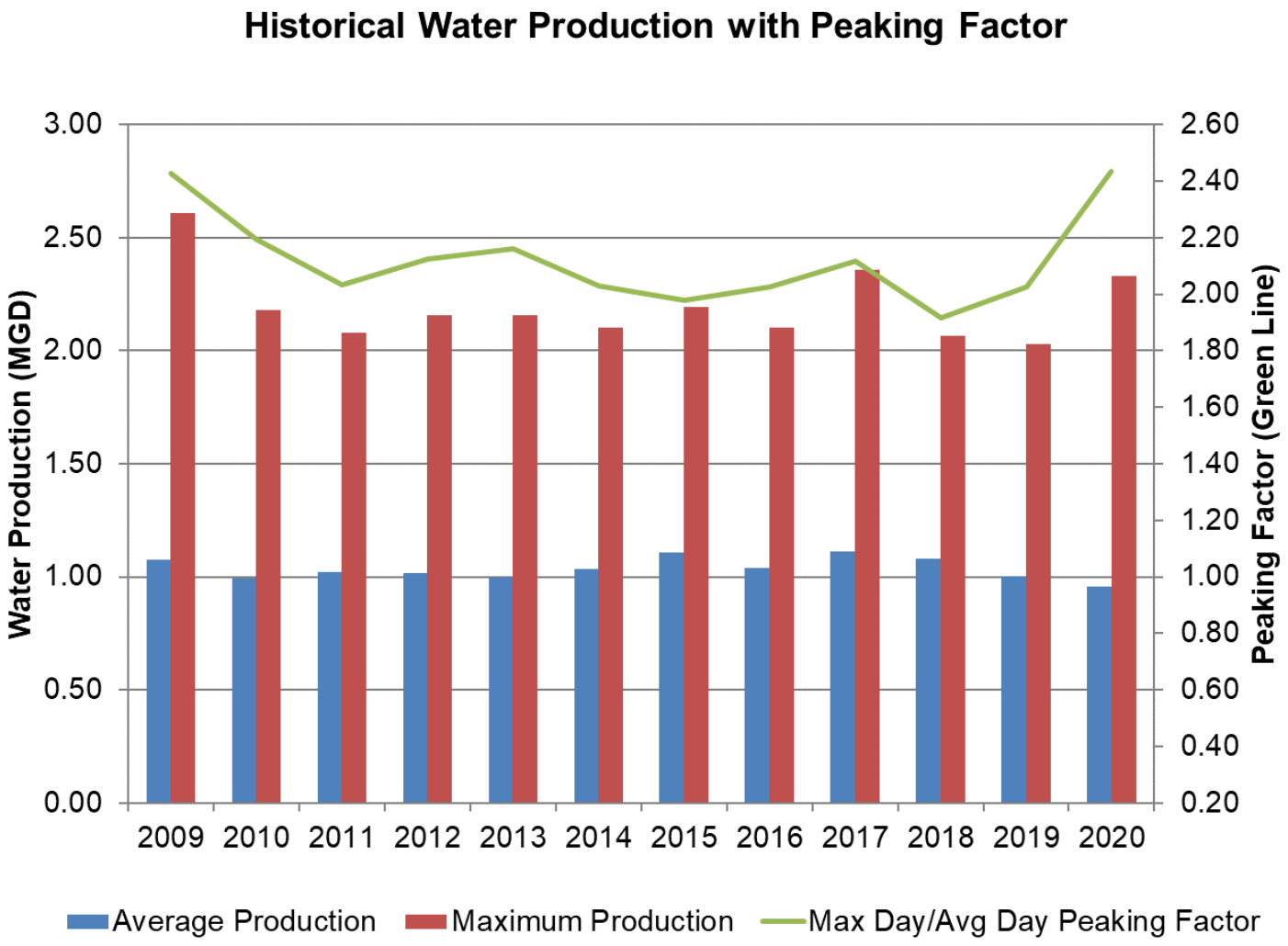
- Summarizes the following:
  - Purpose of the Plan.
  - Plan Objectives.
  - Ownership and management of the water system.
  - Environmental assessment.
  - Approval process.
- Includes the Department of Health (DOH) Water System Plan Checklist.

Chapter 2 – Water Requirements

// The City's water system is supplied by three different wells

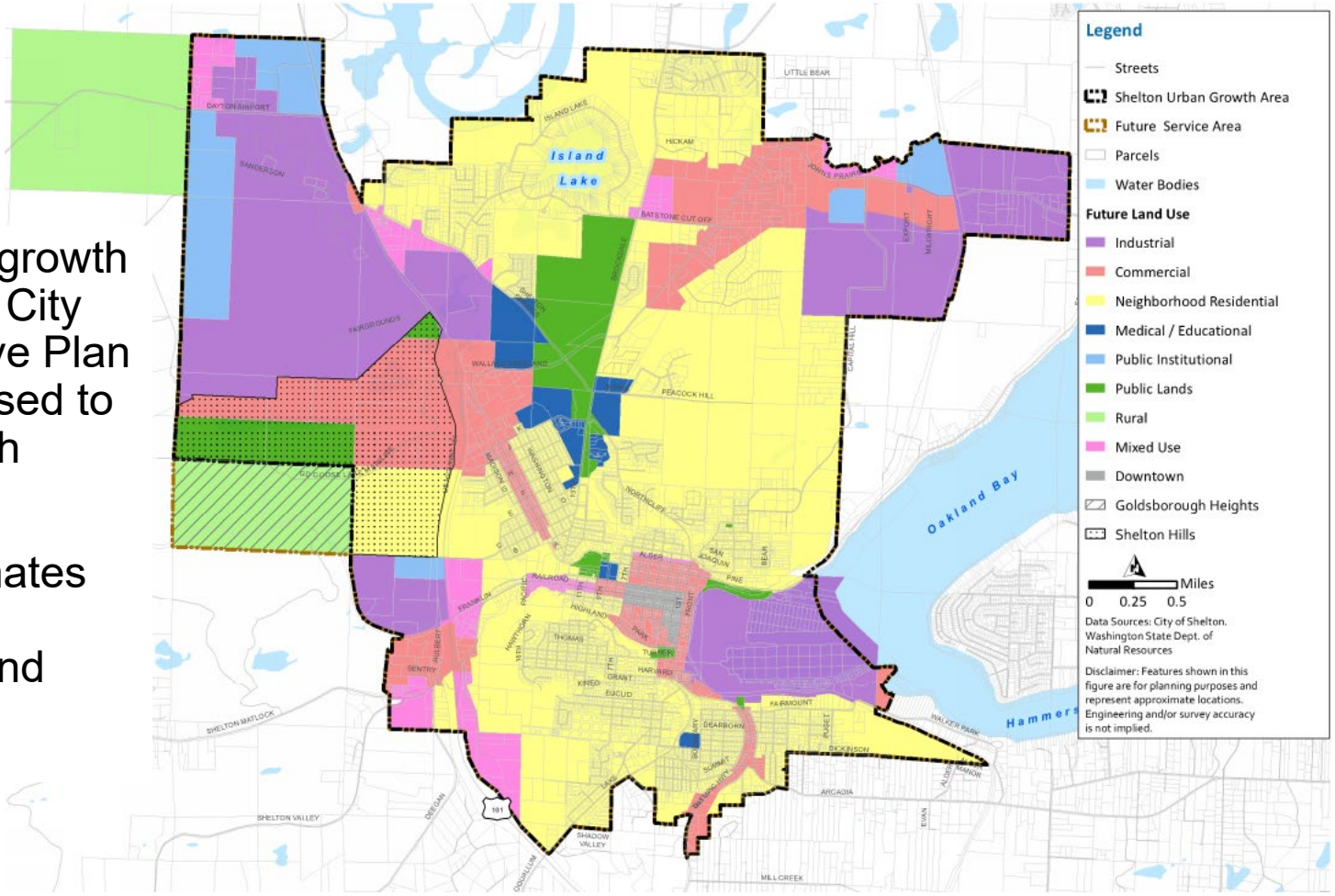


// Historical average water production from 2009 to 2020 remained the same

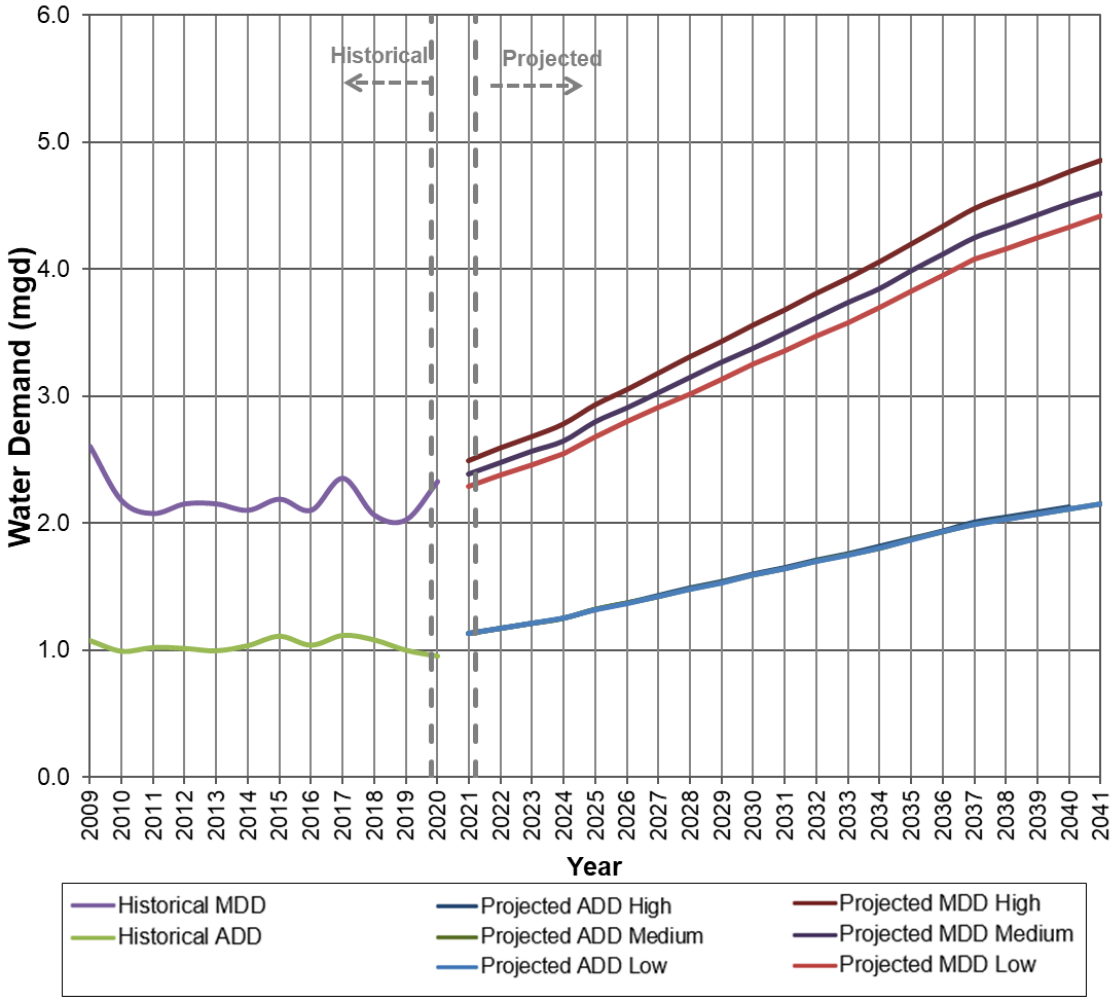


// Zoning, demographic projections, and historical trends inform demand projections

- Demographic growth rates from the City Comprehensive Plan (2017) were used to develop growth rates.
- Includes estimates of population, households, and jobs.

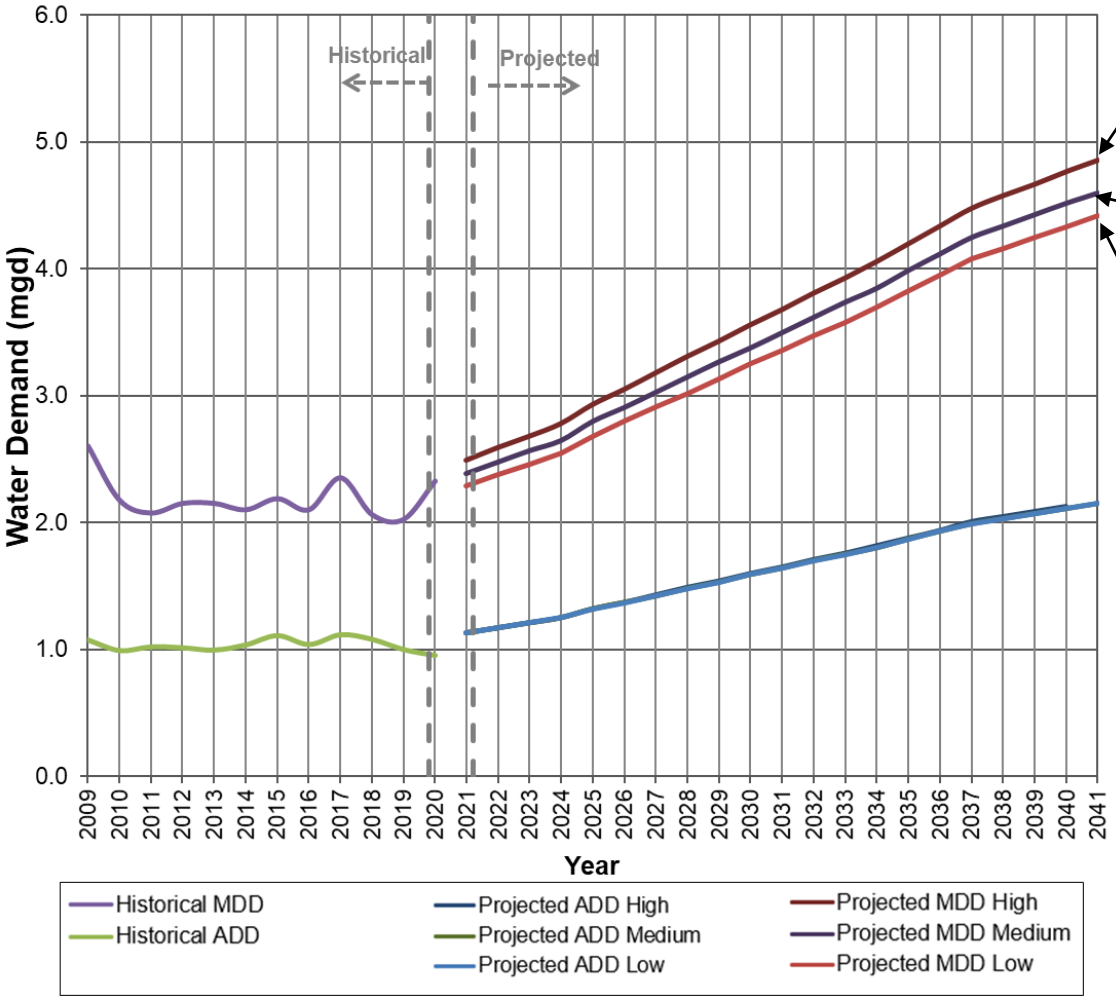


// Projected water demand is the foundational building block for the Plan



Note: ADD is Average Day Demand and MDD is Maximum Day Demand

// Three scenarios encompass the likely range of future water needs



High Scenario

- It is the highest demand the City is likely to experience in the future

Medium Scenario

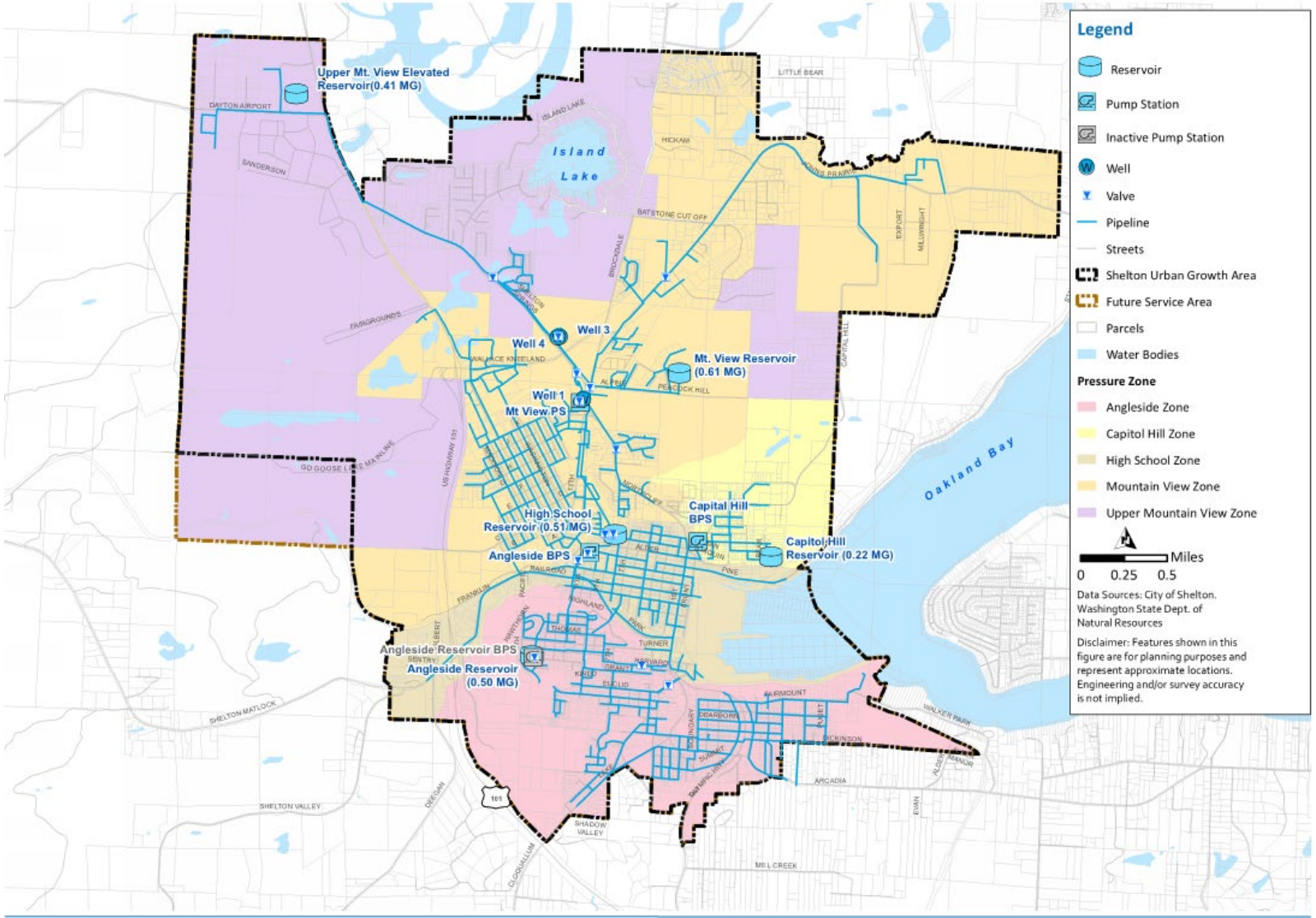
- Medium case that is predicted to most closely match the City's future demands
- Used for system analysis

Low Scenario

- Lower peaking factor
- Lowest future demands the City expects to experience

Chapter 3 – Description of the Water System

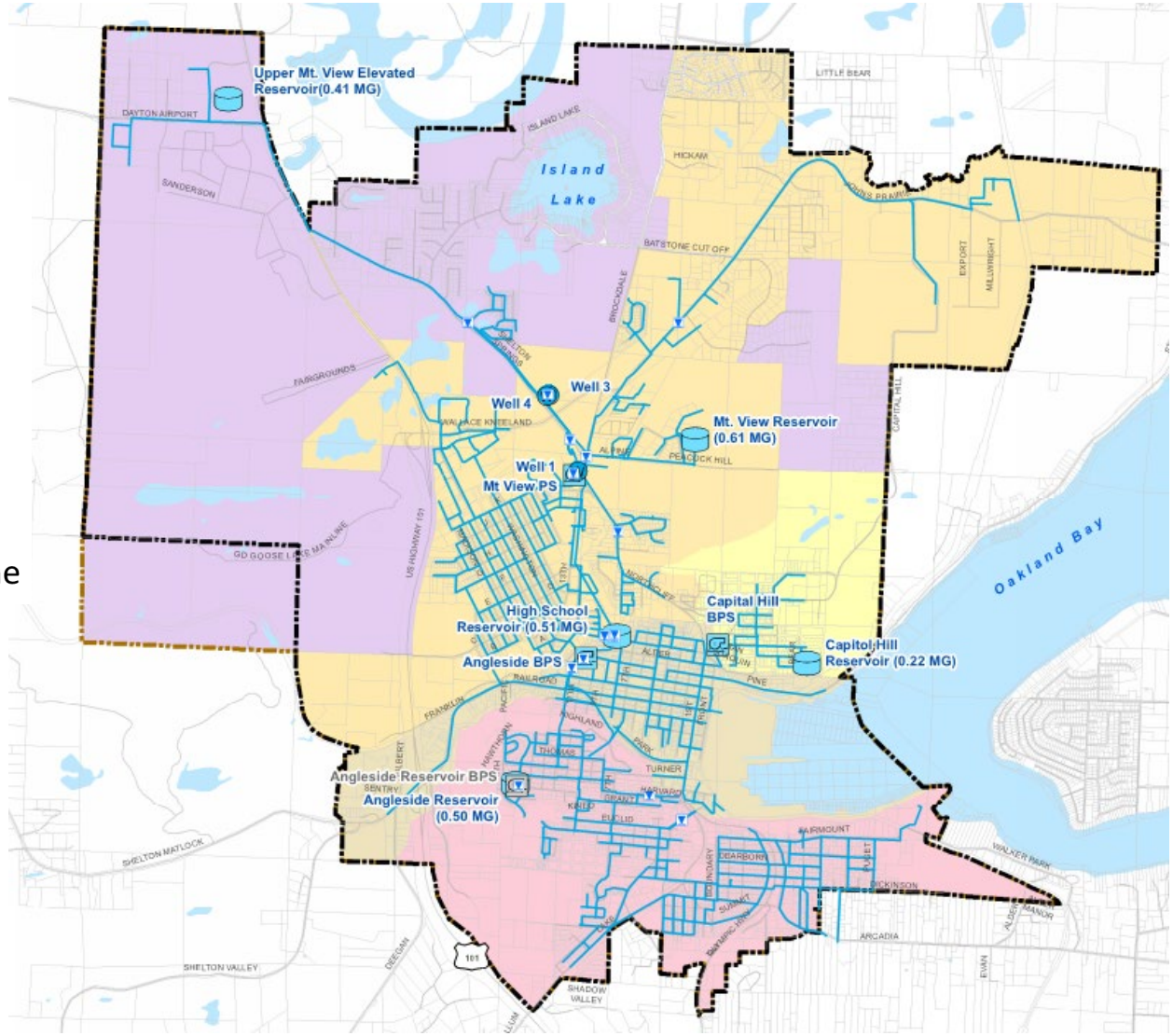
// The future water service area mostly follows the Shelton Urban Growth Area



// The water system is divided into five pressure zones (PZ)

Pressure Zone

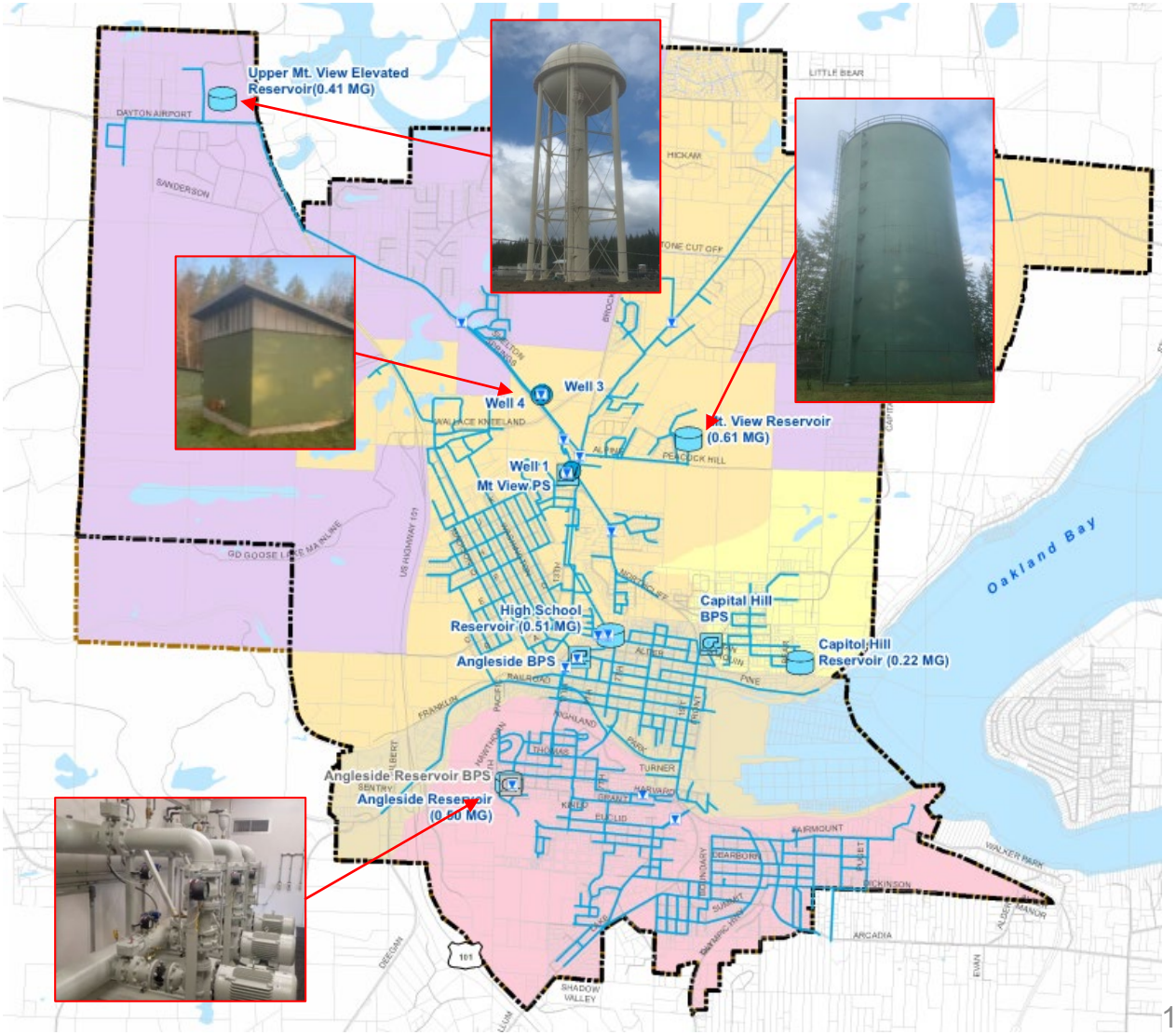
- Angleside Zone
- Capitol Hill Zone
- High School Zone
- Mountain View Zone
- Upper Mountain View Zone



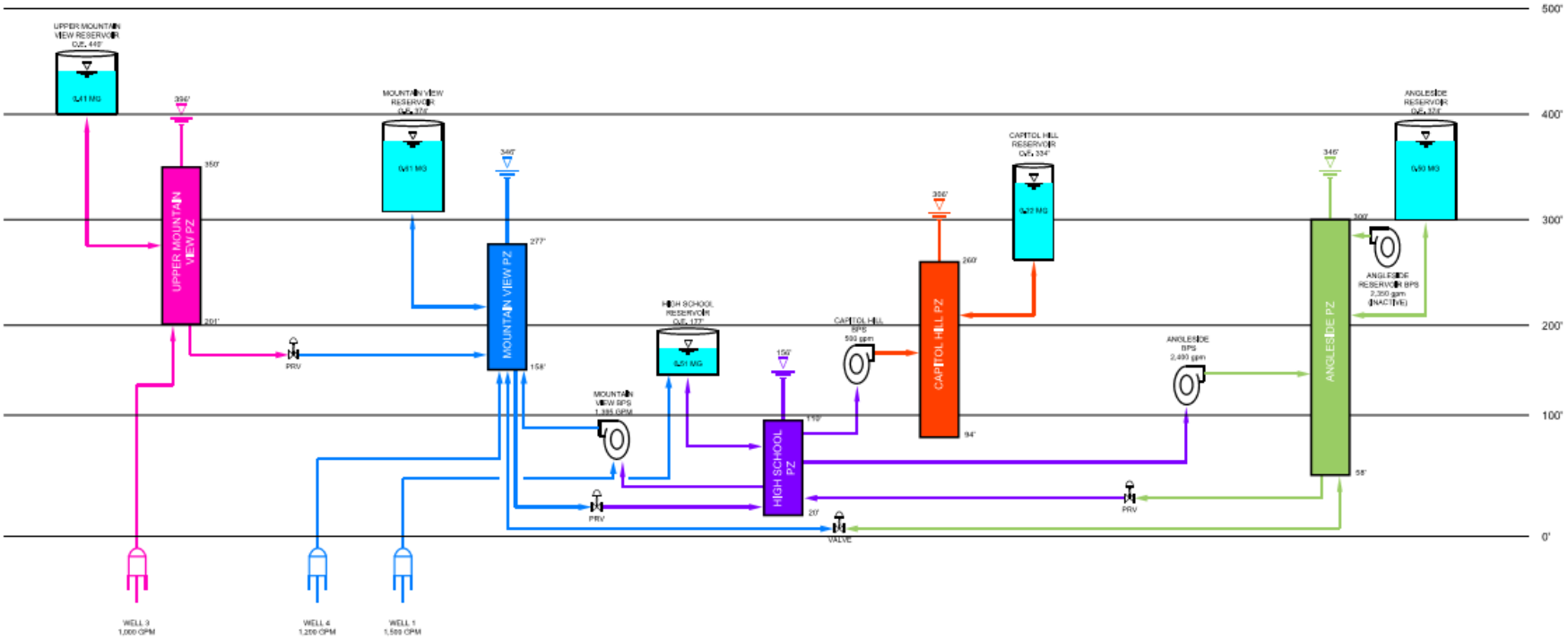
// Facilities that serve the City include:

- 3 active groundwater wells
- 5 active reservoirs
- 4 booster pump stations (BPS)
- 66 miles of pipe

Also includes one emergency source (Shelton Springs)



// The hydraulic profile shows how the system functions



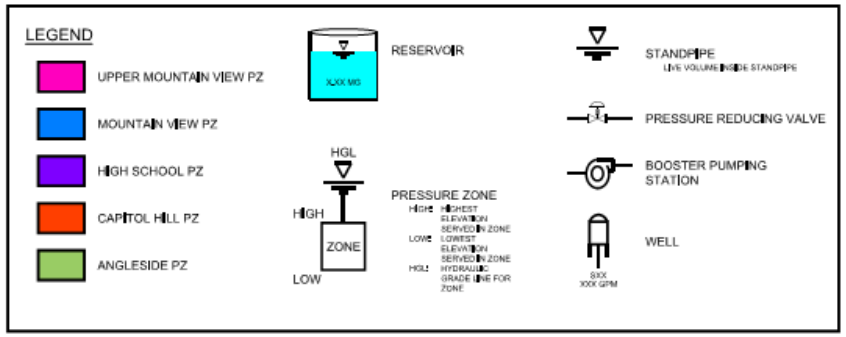


Figure 3.6
HYDRAULIC PROFILE
CITY OF SHELTON
COMPREHENSIVE WATER SYSTEM PLAN

// Chapter 3 also includes summary of planning considerations for water system

- Water service and service extensions, including Duty to Serve.
- System criteria, including facility requirements, reliability recommendations, and fire protection.
- Agency coordination.
- Financial requirements.

Chapter 4 – Water Conservation Plan

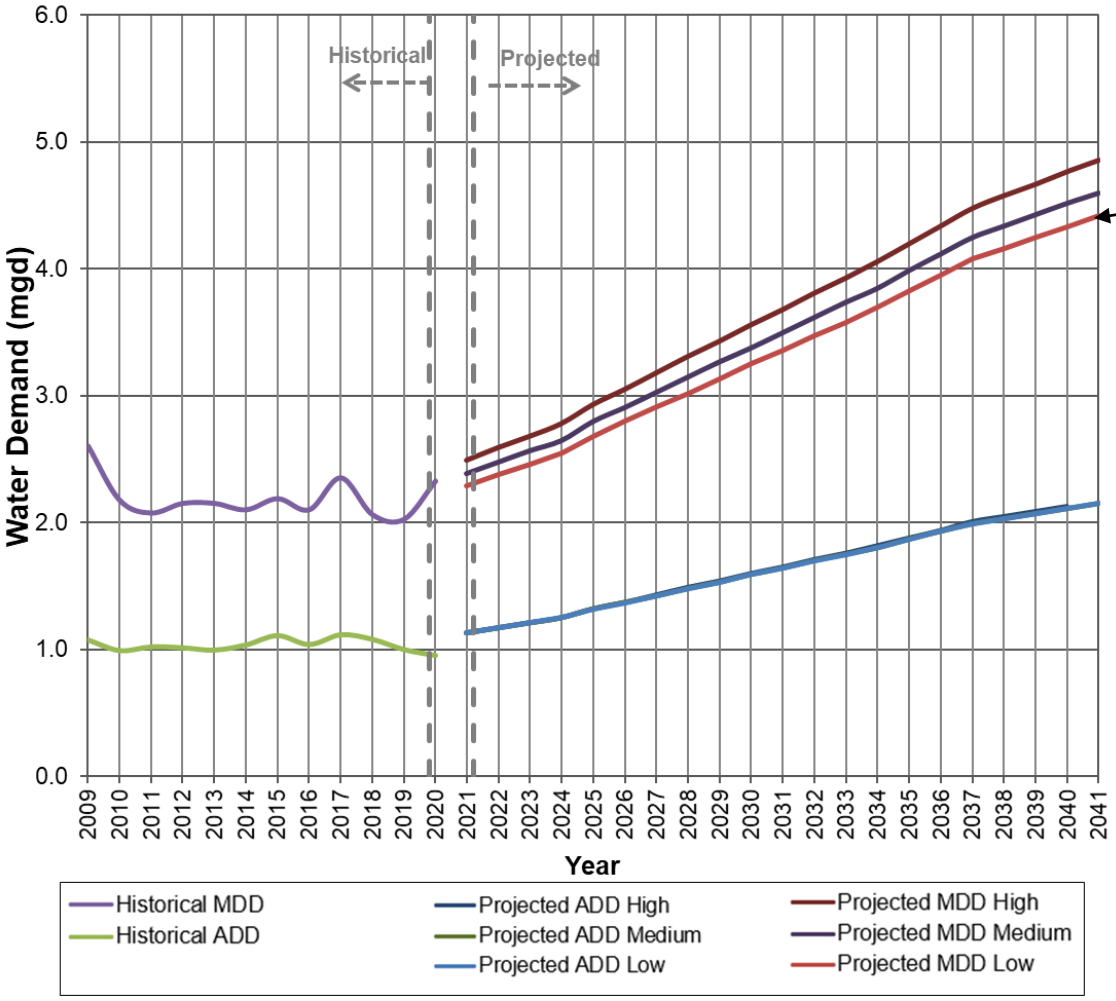
// Chapter 4 presents the City's Conservation and Water Use Efficiency (WUE) Program

- Conservation program consists of the following key parts:
  - Collect data.
  - Forecast demand.
  - Evaluate WUE measures.
  - Calculate distribution system leakage (DSL).
  - Implement a WUE program to meet goals.

// City has three WUE goals and a Water Loss Control Action Plan

- WUE Goals:
  - Goal 1: Reduce total consumption.
  - Goal 2: Maintain low distribution system leakage.
  - Goal 3: Reduce residential water consumption.
- Water Loss Control Action Plan:
  - Conduct a water audit.
  - Perform annual leak detection surveys and prepare leaks.

// WUE Efficiency Program represents low demand scenario



Low Scenario

- Lower peaking factor
- Lowest future demands the City expects to experience

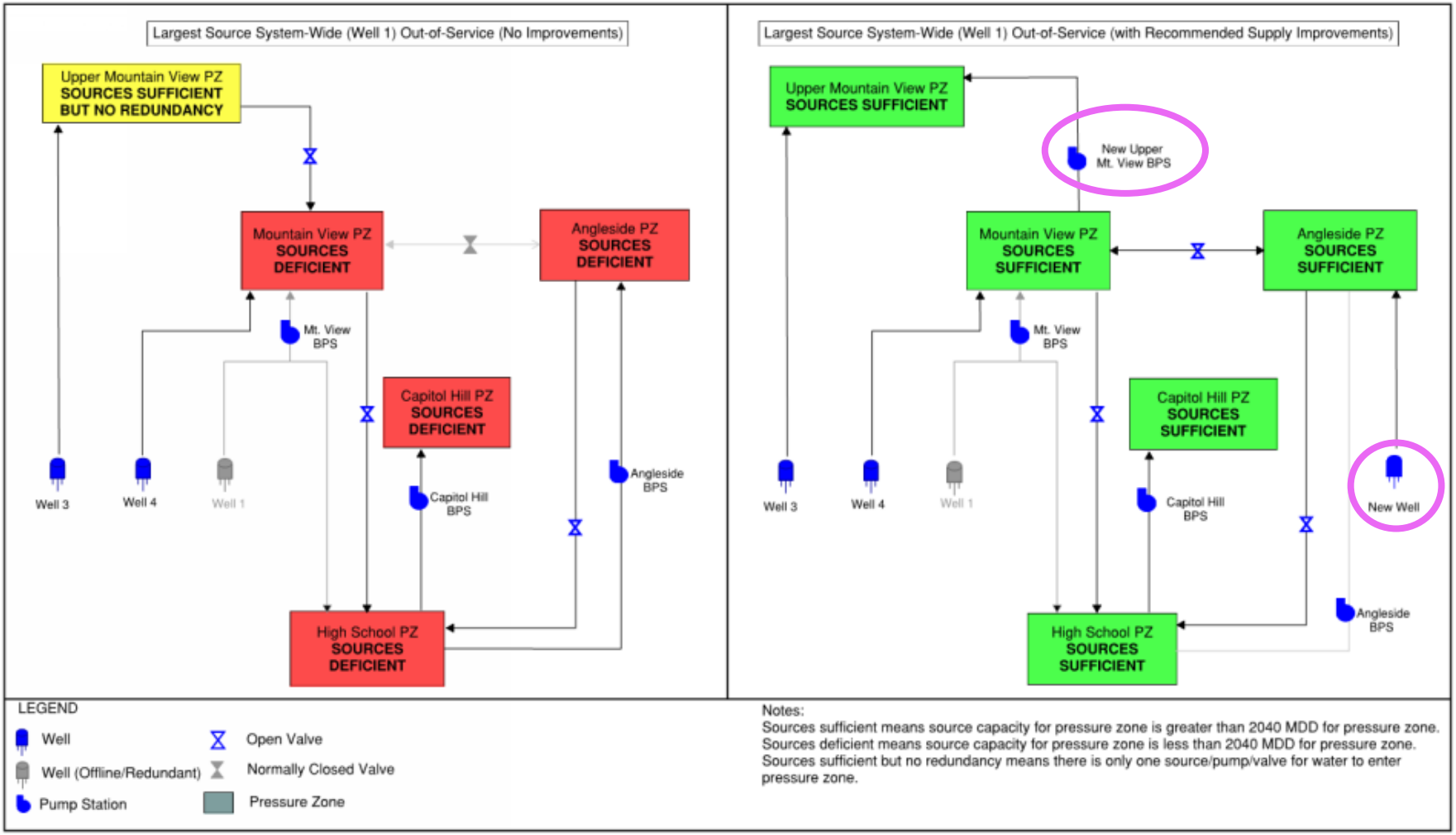
Chapter 5 – System Analysis

// The existing water system was evaluated under 2031 and 2041 future conditions

The planning demand projection scenario was used to evaluate the City's:

- Supply and pumping capacity.
- Reliability and redundancy.
- Storage facility capacities.
- Adequate pressure and velocity.
- Fire flow capacity.

// Recommend new well and new Upper Mt. View BPS to provide supply redundancy

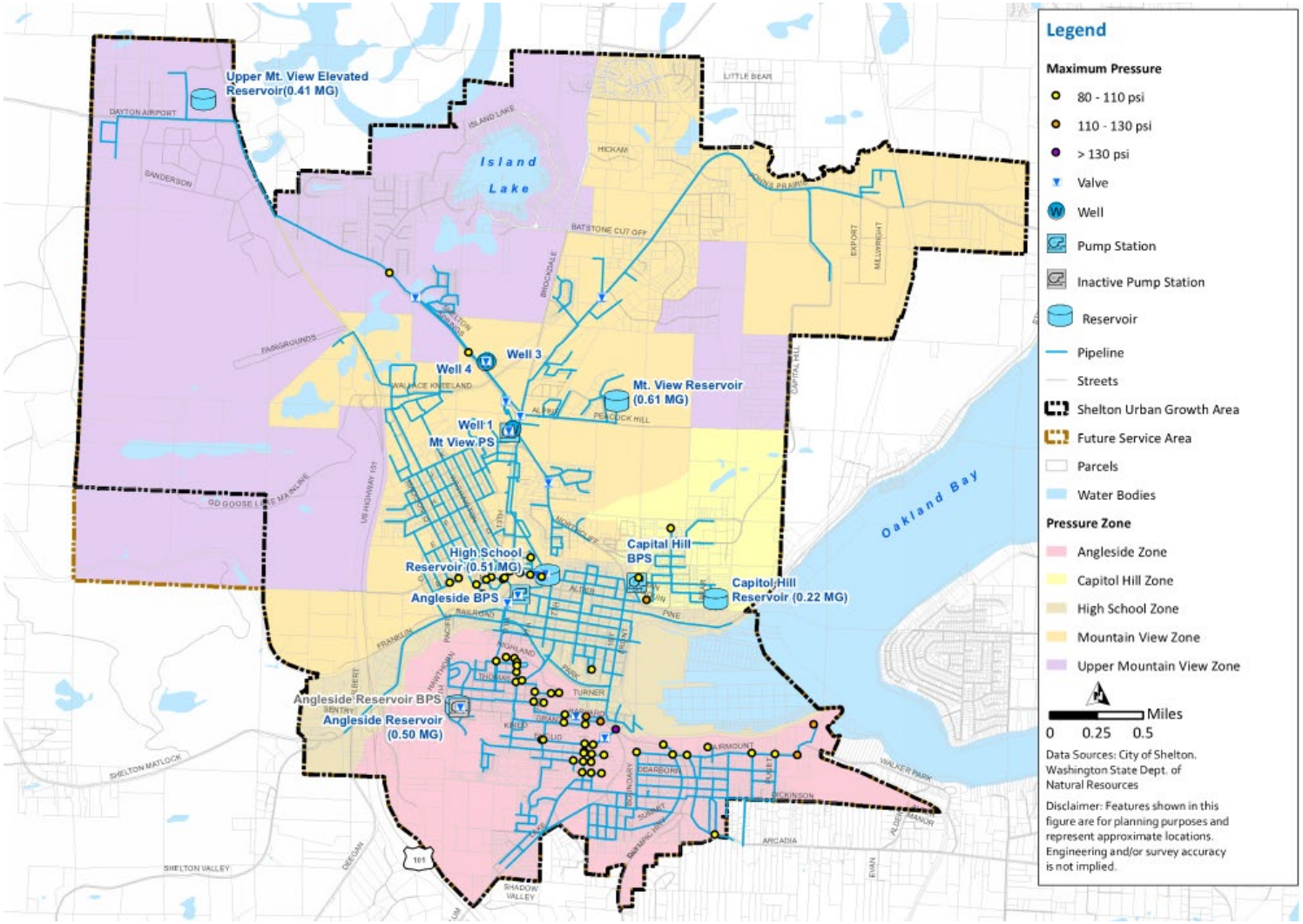


// Storage improvements are recommended to address deficiencies

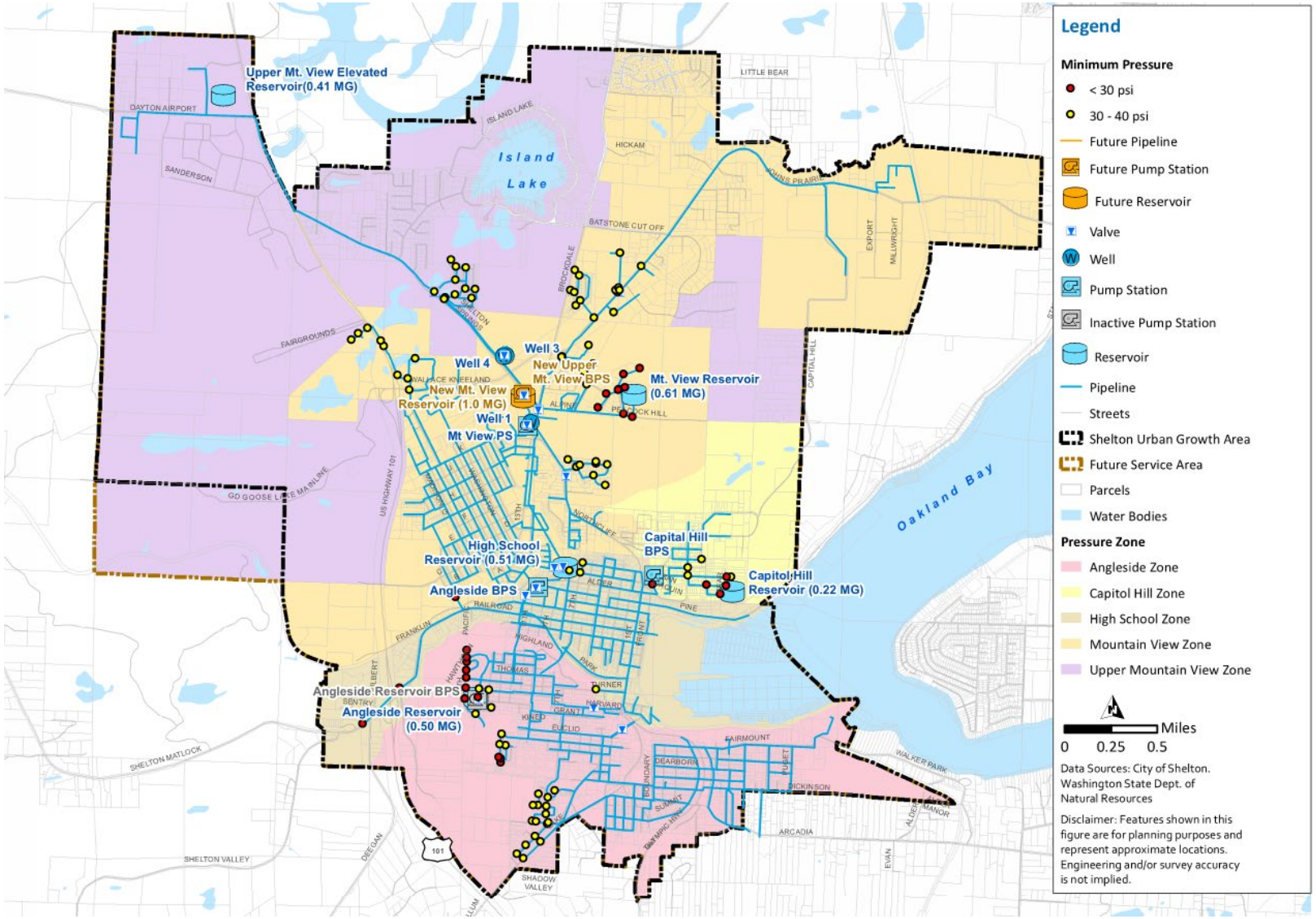
Parameter (MG)	Existing System		With Improvements	
	2031	2041	2031	2041
Total Storage	2.25	2.66	4.25	4.44
Dead Storage	0.88	0.89	0.96	0.84
Available Storage (at 20 psi)	1.37	1.77	3.29	3.60
Total Required Storage	2.42	2.99	2.67	3.12
Excess or (Deficit)	**(1.05)**	**(1.22)**	**0.62**	**0.48**

- Recommended Storage Projects:
  - Upper Mt. View Elevated Reservoir in Shelton Hills when area is developed.
  - New Mt. View Reservoir near Well 1.
  - New Angleside Reservoir.
  - Capitol Hill Reservoir taken offline in year 2040.

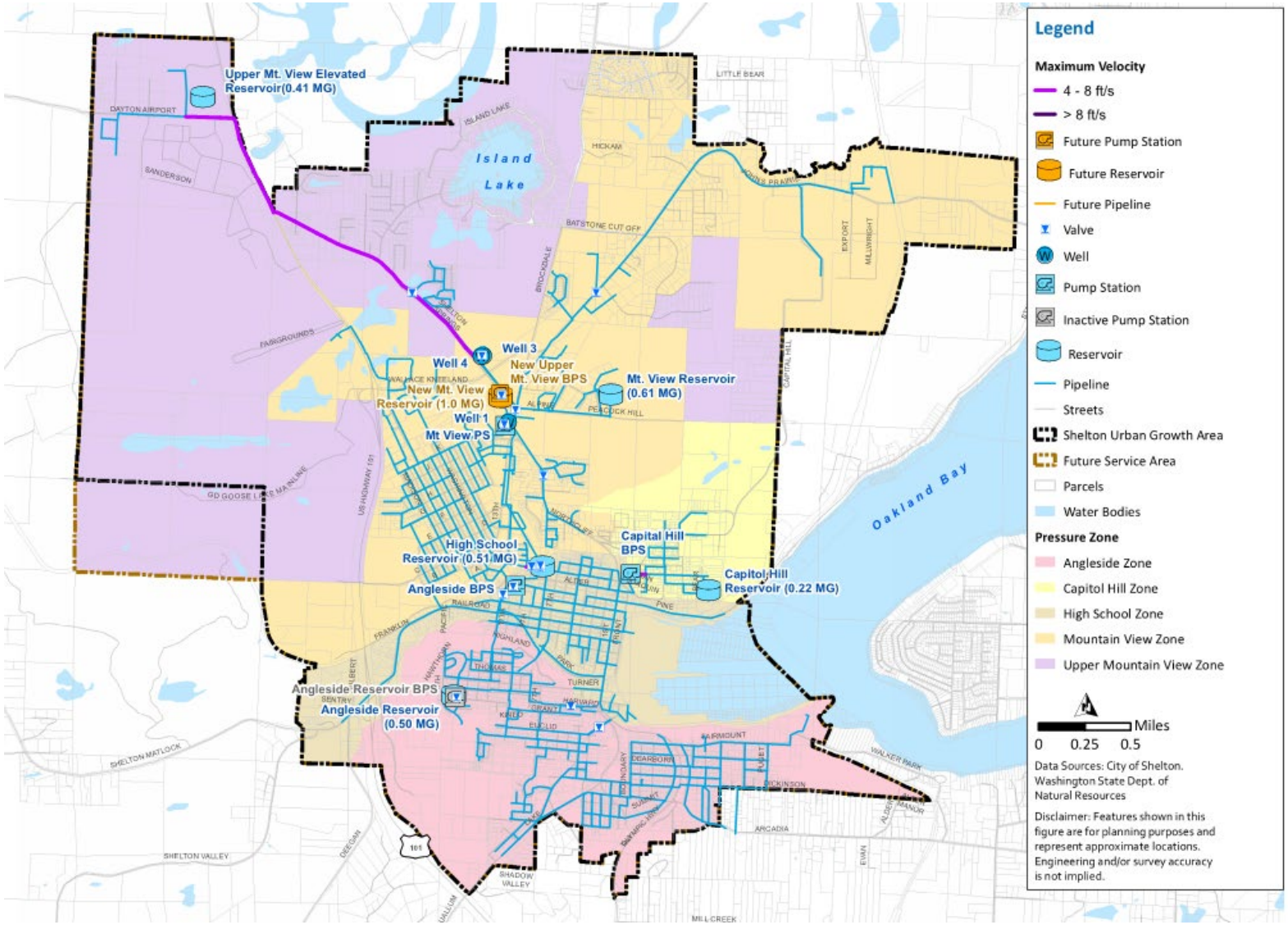
// Hydraulic model indicates some high system pressures in Angleside and High School PZs



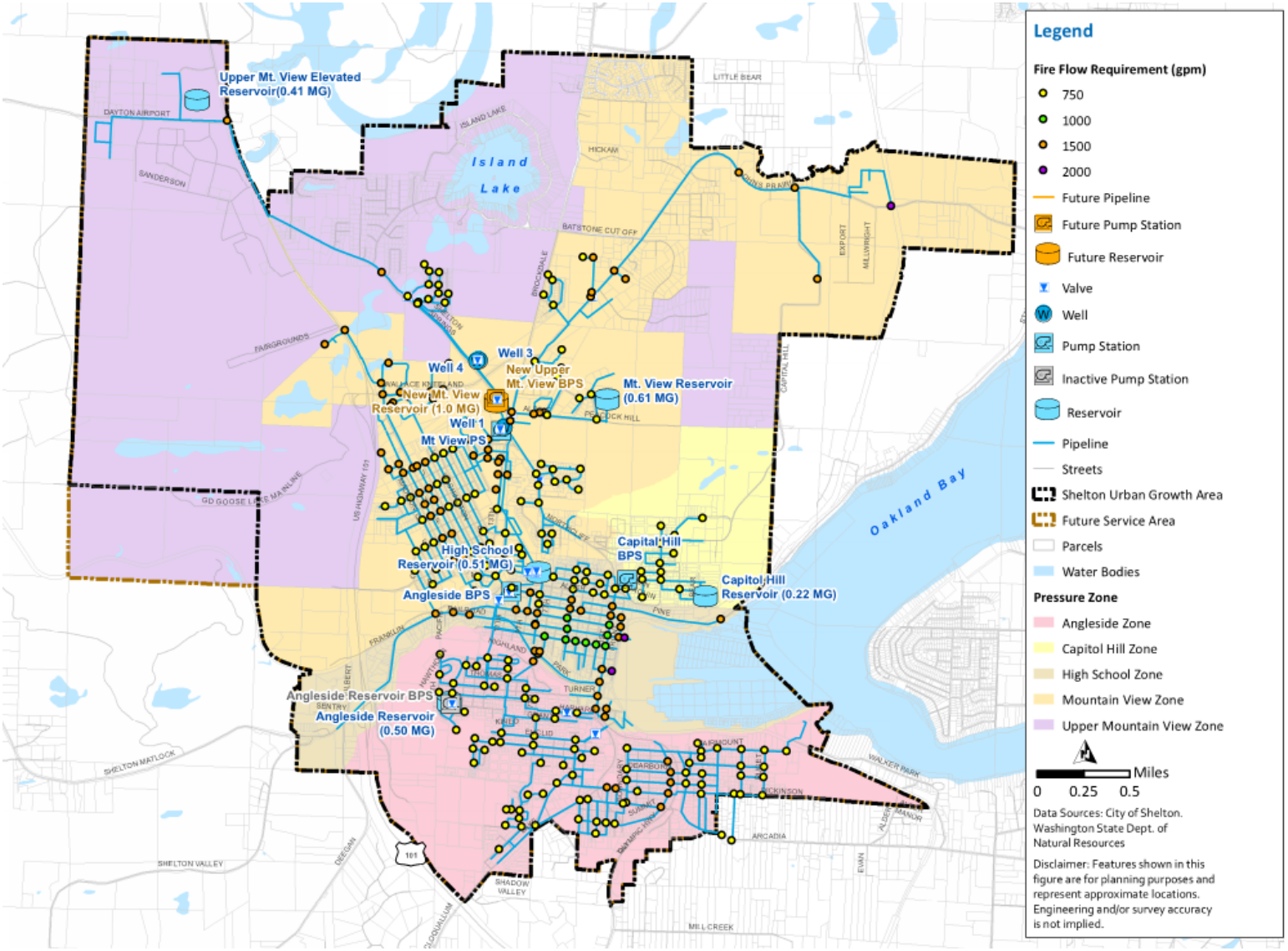
// Areas with low system pressures have recommended improvement projects



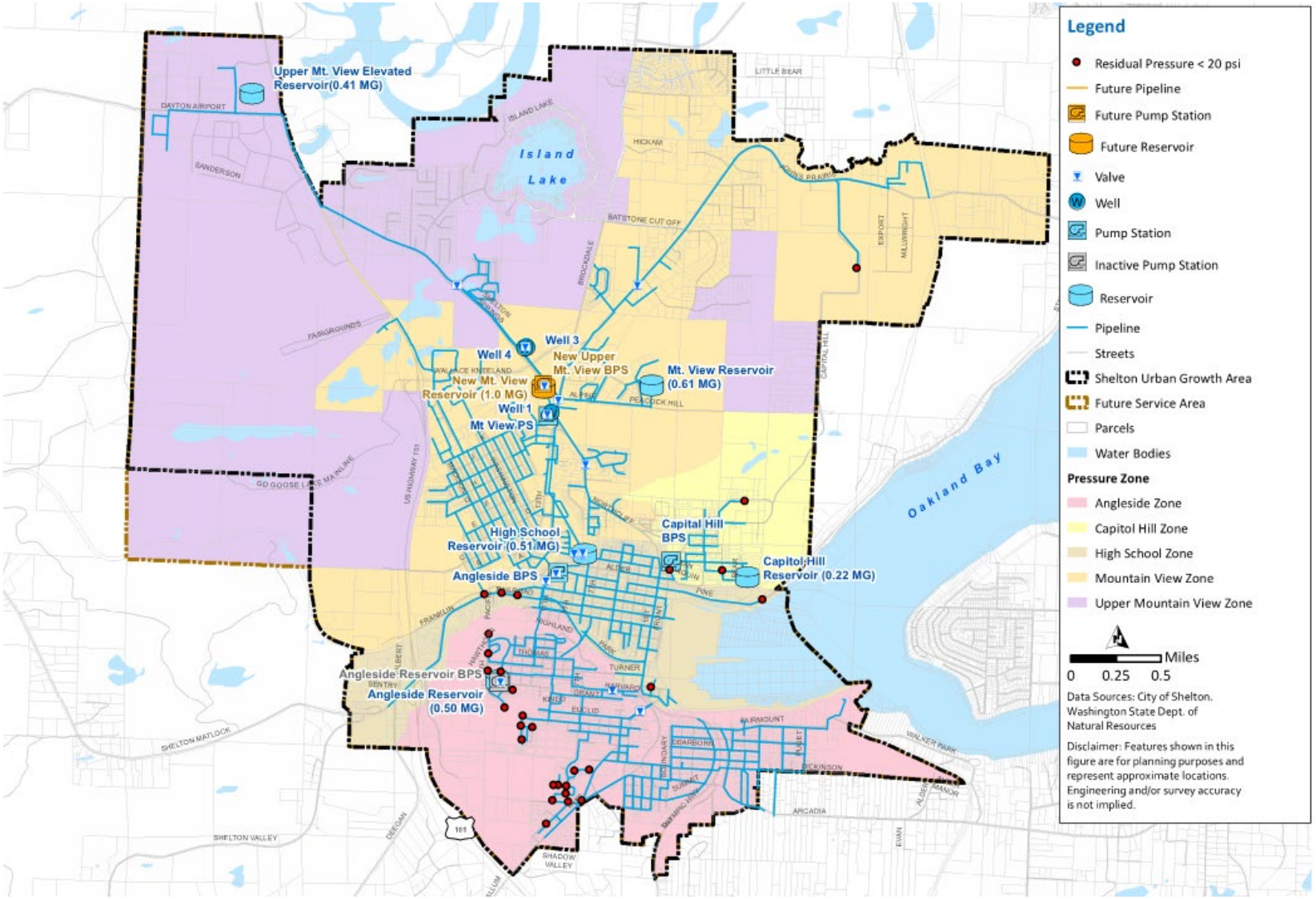
// Hydraulic model shows no maximum velocities above 8 feet per second in pipes



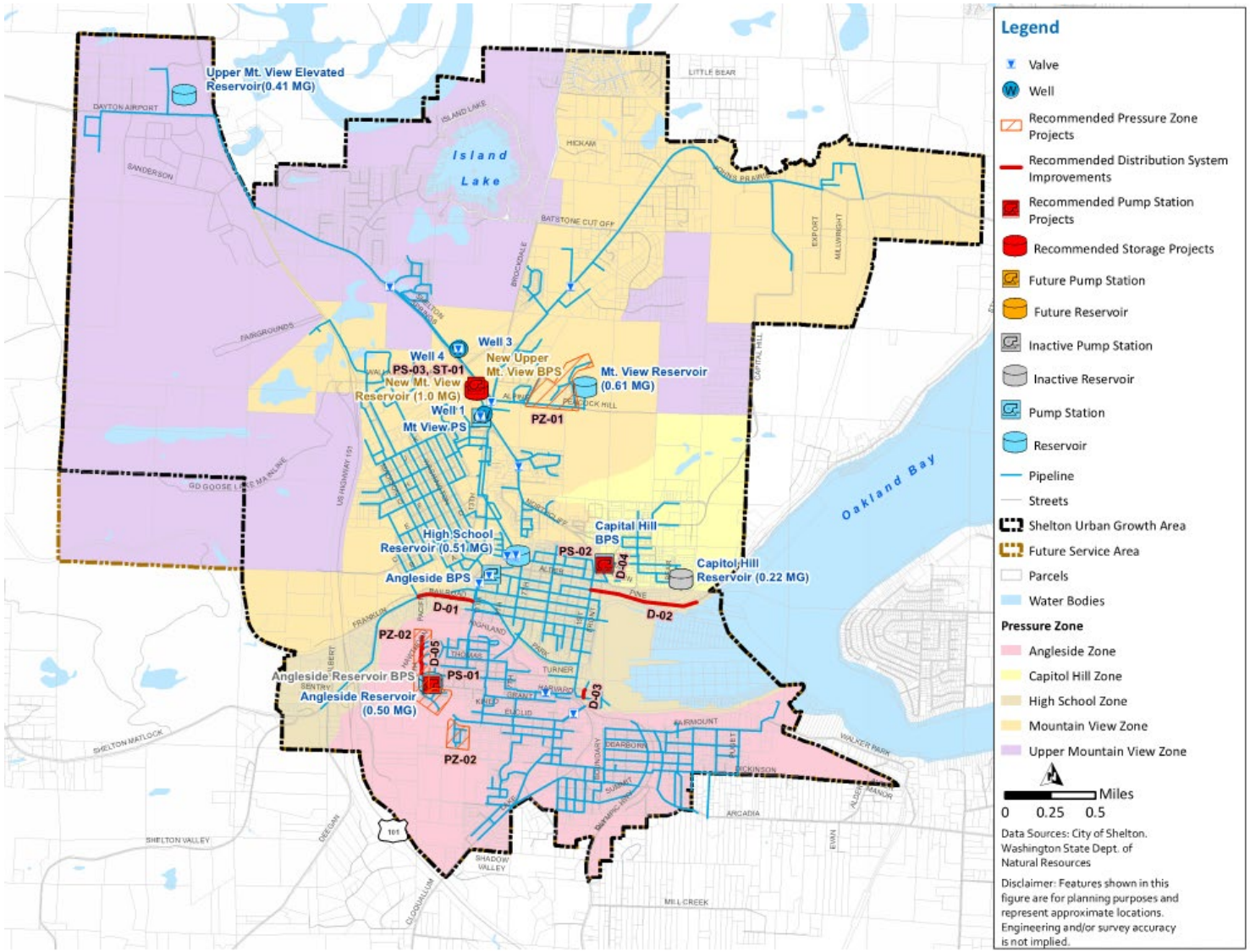
// Fire flow requirements are based on the City's zoning map



// Areas with low available fire flow have recommended improvement projects



// Improvements were recommended to meet deficiencies shown in previous slides

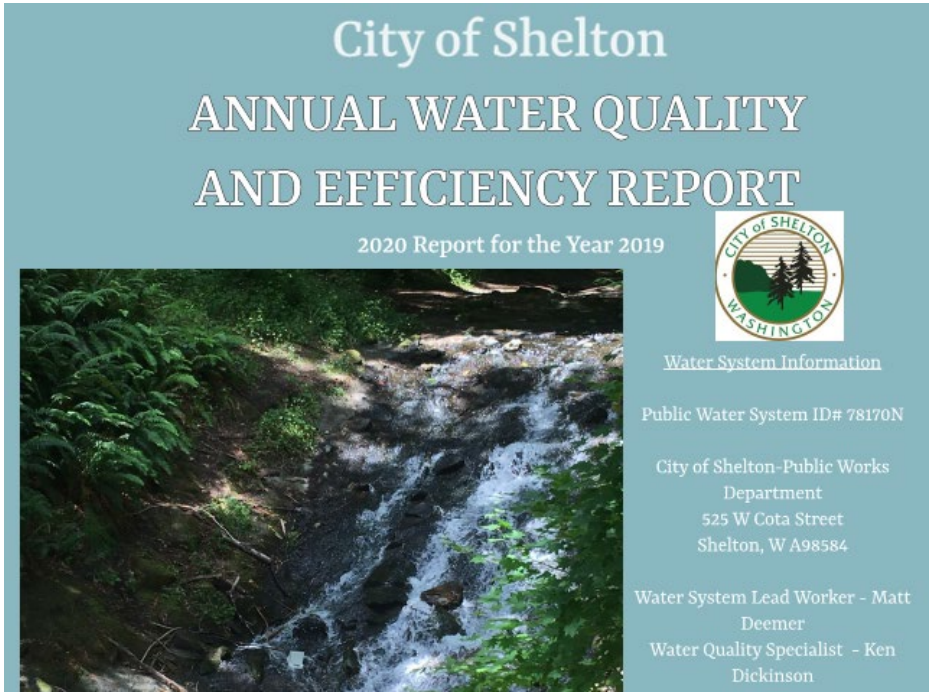


Chapter 6 – Water Quality

// Chapter discusses the City's water quality requirements for sources and distribution

- City has water quality plan and treats its sources.
- City follows state and federal regulatory requirements.
- City monitors new and future water quality rules.

// Consumer Confidence Report is released annually



2019 Test Results for the City of Shelton Total Water System

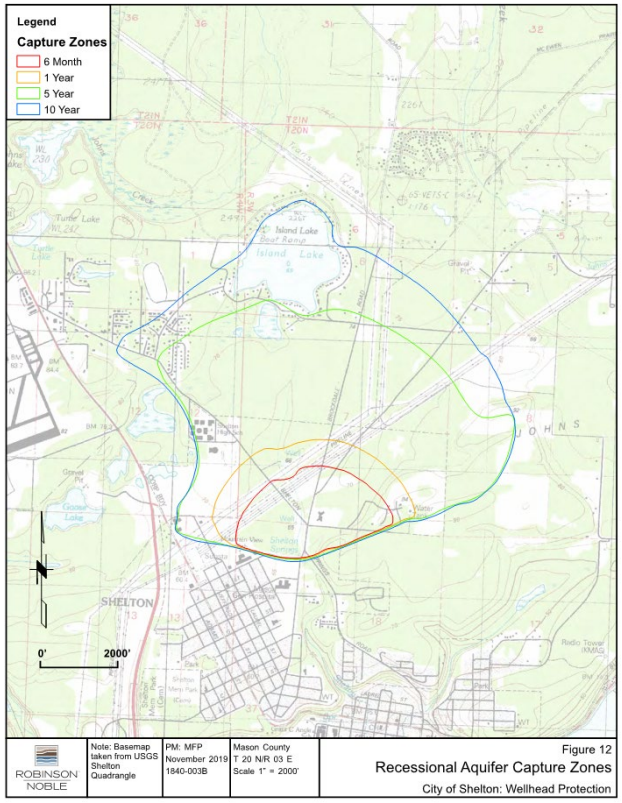
Wells 1, 3, 4	**Compounds Pesticides**	**Results**	**Units**	**MRL**	**Date Collected**
	Chlorpyrifos	ND	Ug/L	0.03	5/19-11/19
	Dimethipin	ND	Ug/L	0.2	5/19-11/19
	Ethoprop	ND	Ug/L	0.03	5/19-11/19
	Oxyfluorfen	ND	Ug/L	0.05	5/19-11/19
	Profenofos	ND	Ug/L	0.3	5/19-11/19
	Tebuconazole	ND	Ug/L	0.2	5/19-11/19
	Permethrin Total	ND	Ug/L	0.04	5/19-11/19
	Compounds SVOCs	**Results**	**Units**	**MRL**	**Date Collected**
	Butylated	ND	Ug/L	0.03	5/19-11/19
	*O-Toluidine	ND	Ug/L	0.007	5/19-11/19
	*Quinoline	ND	Ug/L	0.02	5/19-11/19
	Alcohols	**Results**	**Units**	**MRL**	**Date Collected**
	*1-Butanol	ND	Ug/L	2	5/19-11/19
	*2-Methoxyethanol	ND	Ug/L	0.4	5/19-11/19
	*2-Propen-1-OL	ND	Ug/L	0.5	5/19-11/19
	Compounds Metals	**Results**	**Units**	**MRL**	**Date Collected**
	Germanium	ND	Ug/L	0.3	5/19-11/19
	Manganese	Well 1 15.5, Wells 3, 4 ND	Ug/L	0.4	5/19-11/19
EPA Unregulated Contaminants Level 1, 3, 4	**Compounds**	**Results**	**Units**	**MRL**	**Date Collected**
	Bromide	ND	Ug/L	20	5/19-11/19
	Total Organic Carbon	ND	Ug/L	1000	5/19-11/19

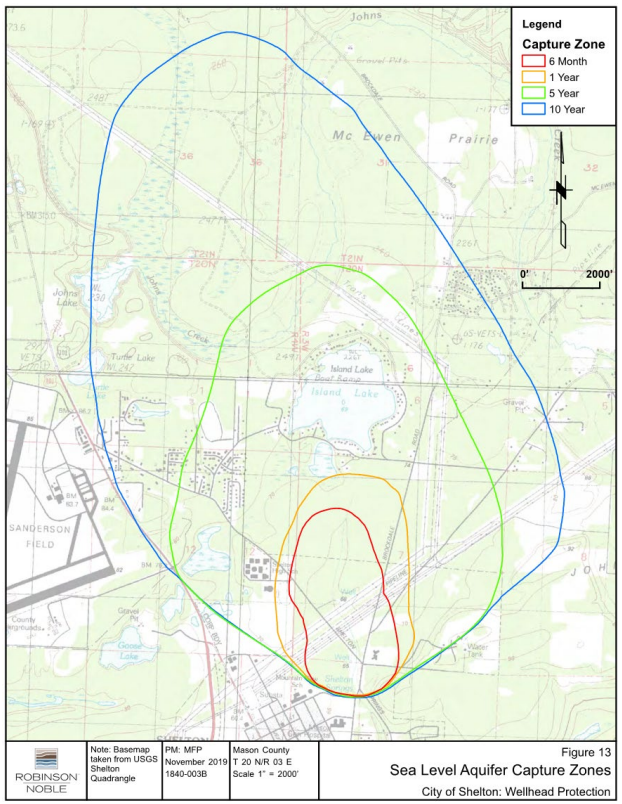
Chapter 7 – Source Water Protection

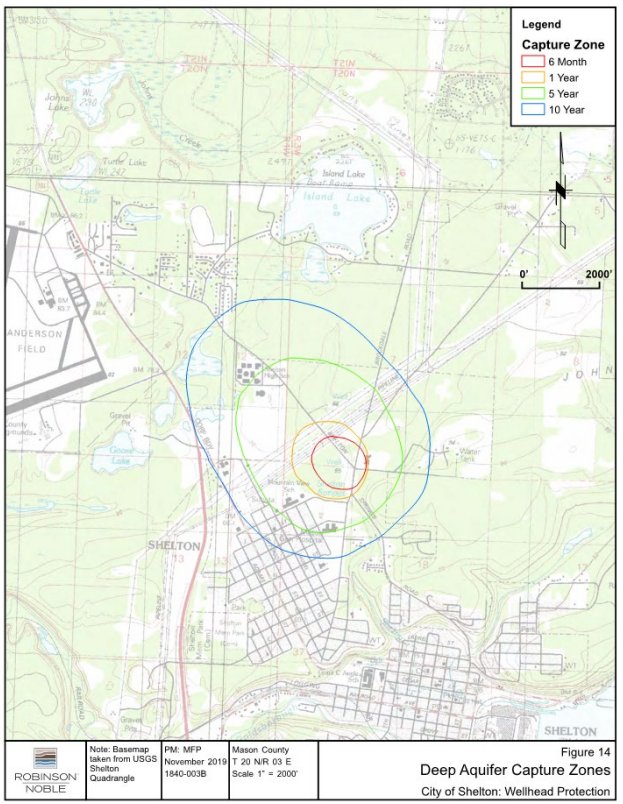
// Robinson Noble updated the City's wellhead protection plan (WHPP)

- WHPP includes:
  - Susceptibility assessment.
  - Wellhead protection area.
  - Inventory of potential contamination threats.
  - Notification letters.
  - Management strategies and implementation tasks.
  - Contingency plan.
  - Spill/Incident response planning.

// Capture zones for the three aquifers that supply the wells are included in WHPP

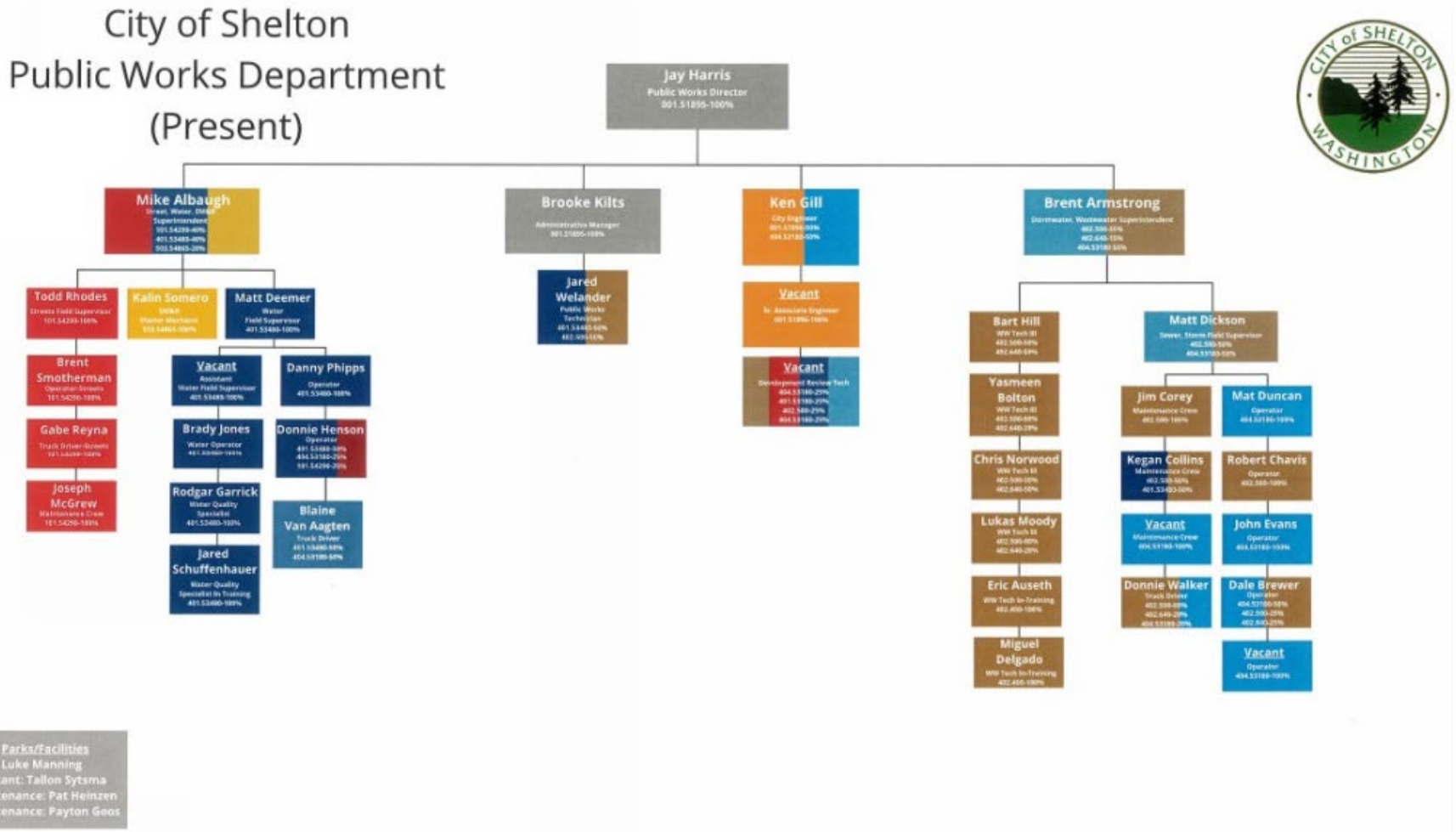






Chapter 8 – Operations & Maintenance

// Public Works Organizational Chart was recently updated

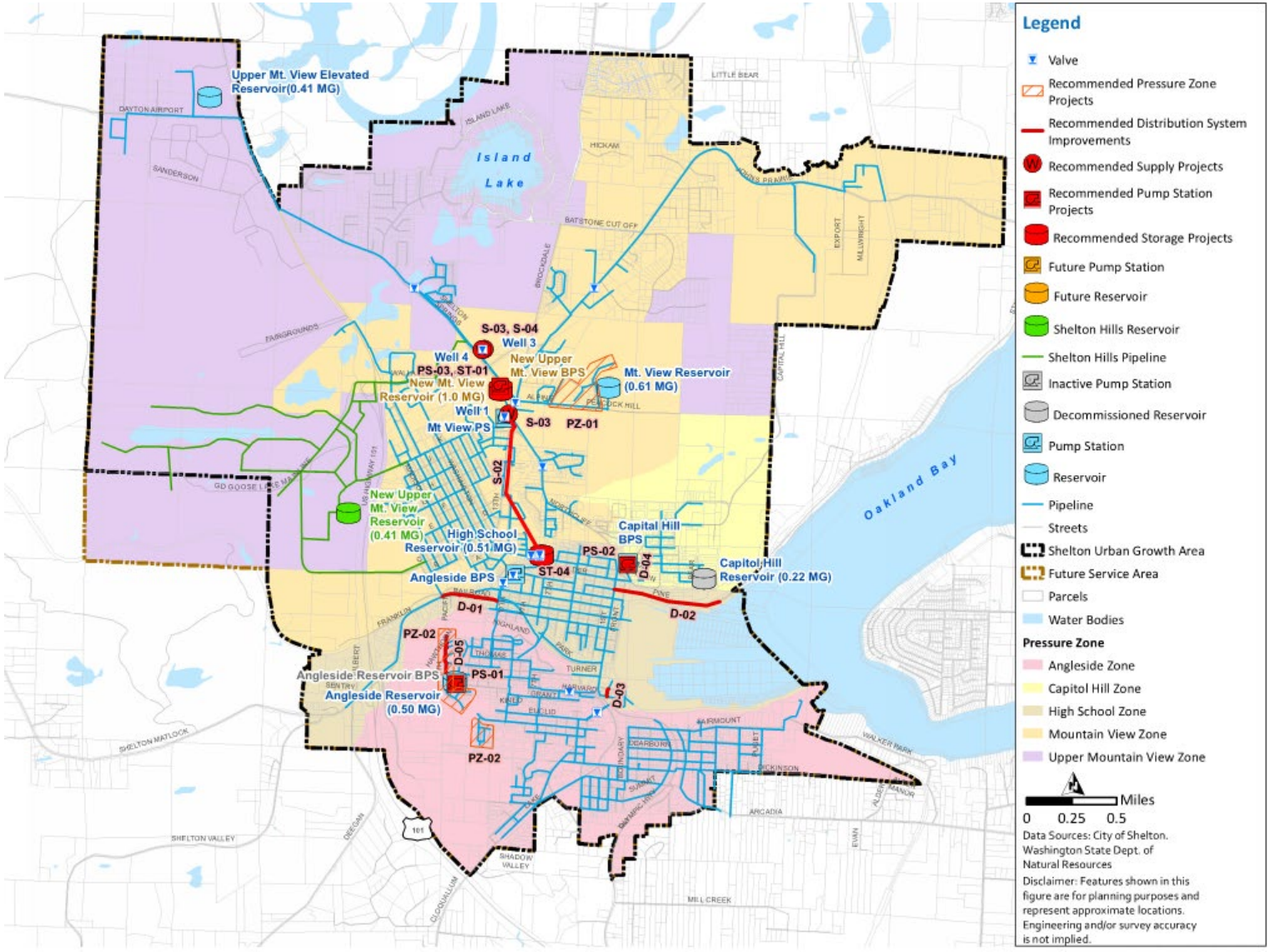


// Operations & Maintenance efforts are documented in the WSP

- Water system management and personnel.
- Operator training.
- Operating procedures and preventative maintenance.
- Water quality sampling procedures and program.
- Emergency Response Program.
- Safety procedures.
- Cross-Connection Control Program.
- Customer Complaint Response Program.
- Record-keeping and reporting.

Chapter 9 – Capital Improvement Program

// The Capital Improvement Program (CIP) helps City prioritize and execute projects



// CIP projects are identified by type of infrastructure involved

- General (G).
- Supply (S).
- Pressure Zone (PZ).
- Storage (ST).
- Pump Station (PS).
- Distribution System (D).

// Capital projects were allocated into three types

- **Growth:** Provide additional system capacity to meet future demand growth.
  - Typically funded by connection fees and developers.
- **Repair & Replacement:** Replacing or maintaining existing infrastructure.
  - Typically funded by rates.
- **Level of service:** Increase level-of-service (redundant pumping, backup power, fire flow, system reliability, etc.)
  - Typically funded by rates.

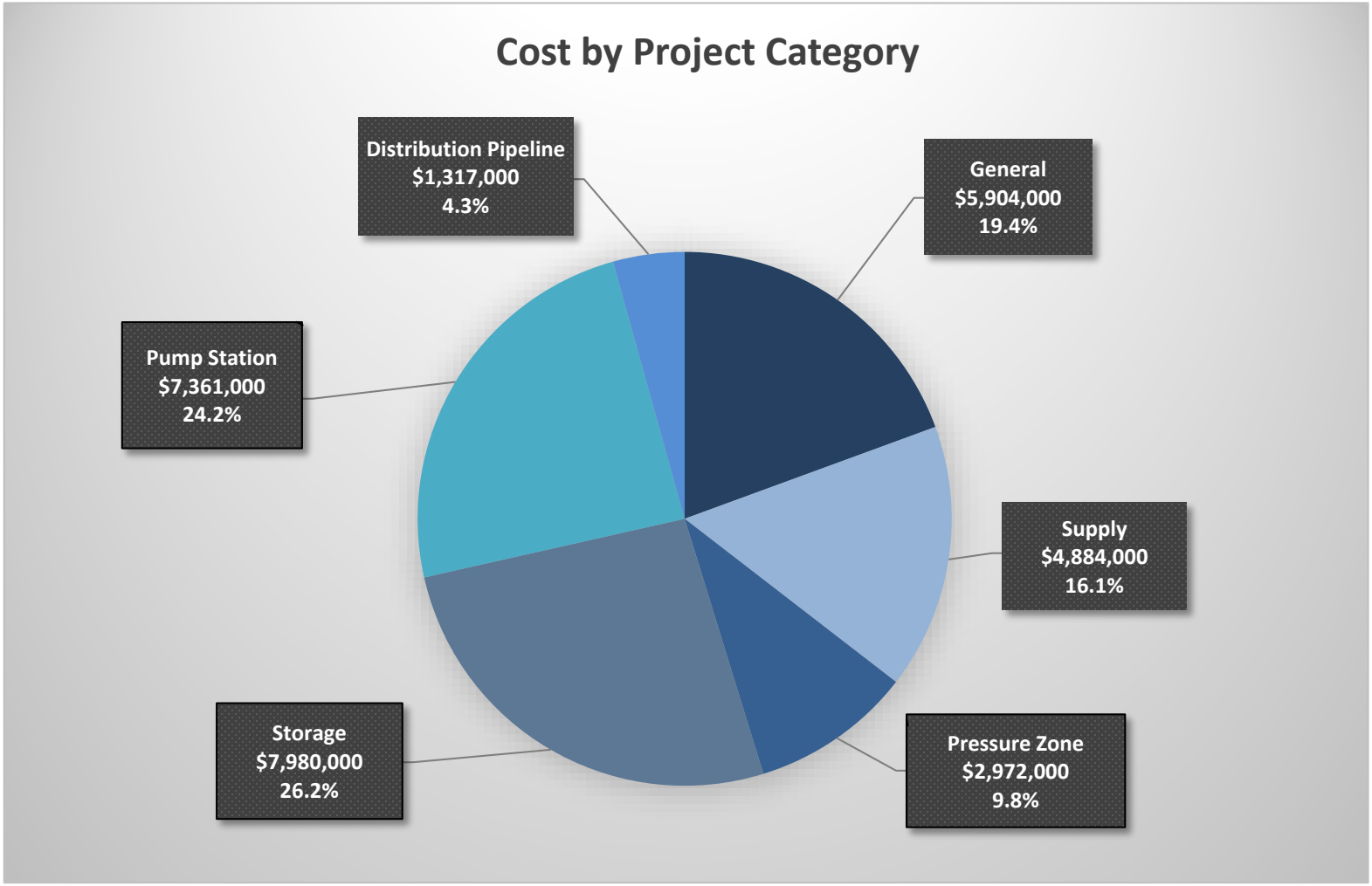
// CIP includes summary of project costs and recommended year for implementation

Capital Improvements Program Summary								
Project		CIP Project Subtotal[1]	Total CIP Cost Estimate	CIP Phasing		Project Type		
				Short-term (2021-2030)	Long-term (2031-2040)	Growth	Repair & Replacement	Level of Service
General								
G-01	Hydrant Improvements	$ 250,000	$ 424,000	$ 424,000	$ -	0%	100%	0%
G-02	Repair & Replacement	$ 2,000,000	$ 3,400,000	$ 1,700,000	$ 1,700,000	0%	100%	0%
G-03	Water System Plan	$ 400,000	$ 560,000	$ -	$ 560,000	0%	100%	0%
G-04	Water Meter AMI Upgrade[2]	$ 2,250,000	$ 850,000	$ 850,000	$ -	0%	100%	0%
G-05	Maintenance Facility Expansion[2]	$ 180,000	$ 530,000	$ 530,000	$ -	0%	0%	100%
G-06	AWIA Risk and Resiliency Assessment[2]	$ 60,000	$ 60,000	$ 60,000	$ -	0%	0%	100%
G-07	AWIA Required Water Emergency Response Plan[2]	$ 60,000	$ 60,000	$ 60,000	$ -	0%	0%	100%
G-08	Rate Study[2]	$ 20,000	$ 20,000	$ 20,000	$ -	0%	0%	100%
	General Subtotal		**$ 5,904,000**	**$ 3,644,000**	**$ 2,260,000**			
Supply								
S-01	New Well in Angleside	$ 2,130,000	$ 3,551,000	$ -	$ 3,551,000	50%	0%	50%
S-02	Well 1 Rehabilitation and Pipeline Pressurization[2]	$ 1,008,000	$ 1,008,000	$ 1,008,000	$ -	0%	0%	100%
S-03	Onsite Chlorine Generation[2]	$ 200,000	$ 200,000	$ 200,000	$ -	0%	0%	100%
S-04	New Generator for Wells 3 & 4[2]	$ 125,000	$ 125,000	$ 125,000	$ -	0%	100%	0%
	Supply Subtotal		**$ 4,884,000**	**$ 1,333,000**	**$ 3,551,000**			
Pressure Zone								
PZ-01	Mountain View PZ Booster Zone	$ 950,000	$ 1,615,000	$ -	$ 1,615,000	0%	0%	100%
PZ-02	Angleside PZ Pressure Improvements	$ 798,400	$ 1,357,000	$ -	$ 1,357,000	0%	0%	100%
	Pressure Zone Subtotal		**$ 2,972,000**	**$ -**	**$ 2,972,000**			
Storage								
ST-01	New Mt. View Ground Storage Tank	$ 1,830,000	$ 3,111,000	$ 3,111,000	$ -	50%	0%	50%
ST-02	New Angleside Reservoir	$ 2,570,000	$ 4,369,000	$ -	$ 4,369,000	50%	0%	50%
ST-03	Shelton Hills Elevated Tank[3]	$ -	$ -	$ -		100%	0%	0%
ST-04	High School Tank Re-Coating[2]	$ 310,000	$ 500,000	$ 500,000		0%	100%	0%
	Storage Subtotal		**$ 7,980,000**	**$ 3,611,000**	**$ 4,369,000**			
Pump Station								
PS-01	Angleside Reservoir PS Control Improvements	$ 450,000	$ 765,000	$ 100,000	$ 665,000	0%	0%	100%
PS-02	Capitol Hill Pressure Improvements	$ 2,030,000	$ 3,451,000	$ -	$ 3,451,000	0%	0%	100%
PS-03	Upper Mt. View Booster Pump Station	$ 1,850,000	$ 3,145,000	$ -	$ 3,145,000	0%	0%	100%
	Pump Station Subtotal		**$ 7,361,000**	**$ 100,000**	**$ 7,261,000**			
Distribution Pipeline								
D-01	W Railroad Ave Pipe Upsize[2]	$ 980,000	$ 980,000	$ 980,000	$ -	0%	0%	100%
D-02	E Pine St Pipe Upsize[3]	$ -	$ -	$ -	$ -	0%	0%	100%
D-03	Alleghany St Pipe Upsize[3]	$ -	$ -	$ -	$ -	0%	0%	100%
D-04	Capitol Hill Hydrant Lateral Relocation	$ 54,000	$ 92,000	$ -	$ 92,000	0%	0%	100%
D-05	S 16th St Pipe Project	$ 144,000	$ 245,000	$ -	$ 245,000	0%	0%	100%
	Distribution Pipeline Subtotal		**$ 1,317,000**	**$ 980,000**	**$ 337,000**			
CIP Total			**$ 30,418,000**	**$ 9,668,000**	**$ 20,750,000**	**$ 5,515,500**	**$ 5,859,000**	**$ 19,043,500**
Annual Cost			$ 1,521,000	$ 967,000	$ 2,075,000	$ 276,000	$ 293,000	$ 952,000

// Looking at CIP by project type and planning horizon helps guide funding decisions

Project Type	Total CIP Cost Estimate	CIP Phasing	
		Short-term (2021 – 2030)	Long-term (2031 – 2041)
Growth	$ 5,515,500	$ 1,555,500	$ 3,960,000
Repair & Replacement	$ 5,859,000	$ 3,599,000	$ 2,260,000
Level of Service	$ 19,043,500	$ 4,513,500	$ 14,530,000
Total Cost	**$ 30,418,000**	**$ 9,668,000**	**$ 20,750,000**
Annual Cost	*$ 1,521,000*	*$ 967,000*	*$ 2,075,000*

// Looking at CIP by infrastructure category shows where funding could be allocated

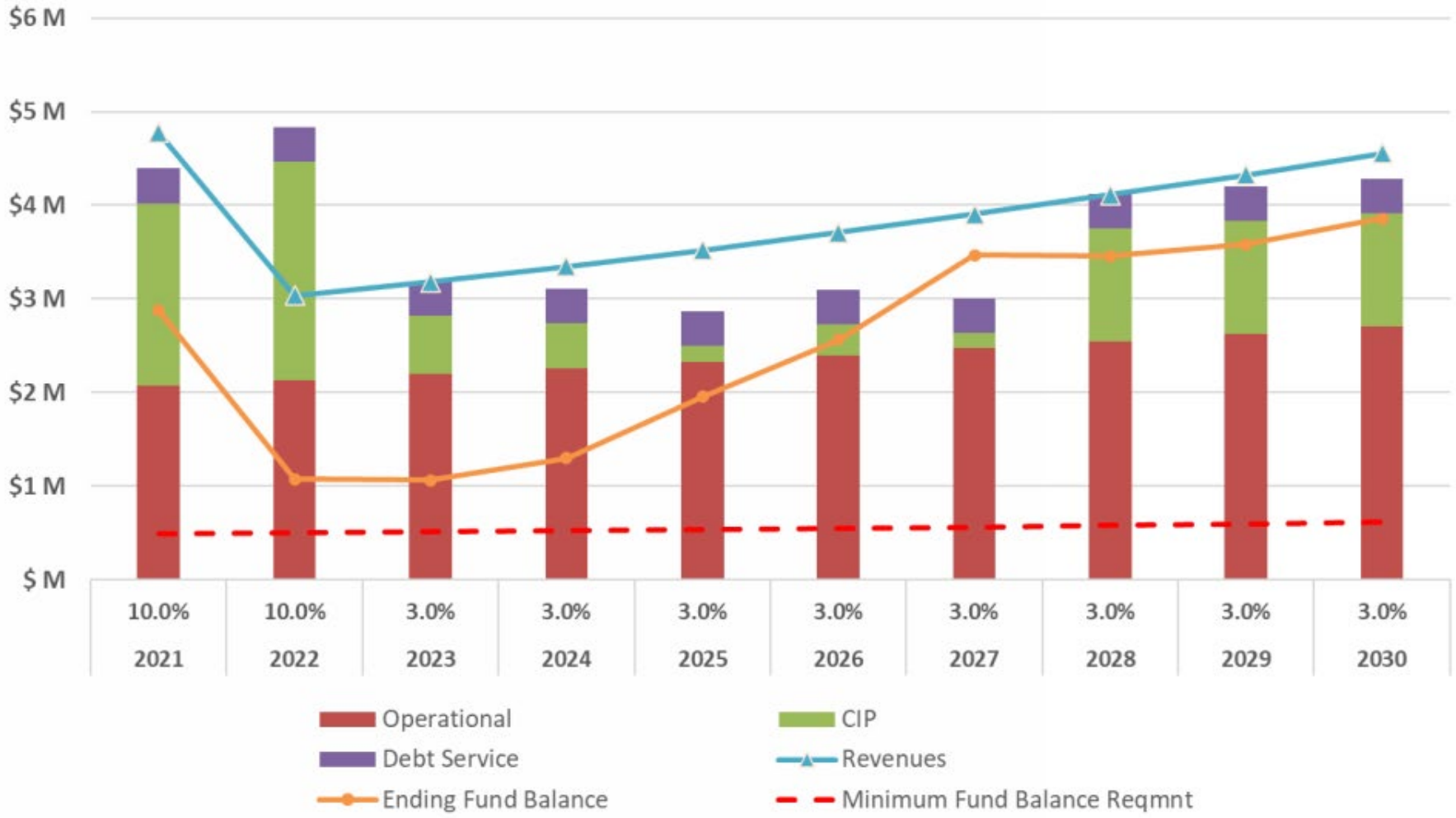


Chapter 10 – Financial Plan

// Financial plan summarizes the financial status of the water utility and ability to finance the CIP

- Financial plan includes:
  - Historical Financial Performance.
    - Water rates, fees, and charges.
    - Outstanding debt.
  - Financial Policies.
  - Financial Forecast.
    - Projected operating revenue and expenditures.
  - Summary and recommendations.

// City will have adequate funds to cover projected operations and CIP costs through 2030



// Conclusion from Financial Plan

- The proposed 2021-2023 biennial capital budget for the State includes $2.05 million for rehabilitating Well 1, including conversion of the water main.
- With State funds, revenue from water rates, and general facility charges, the expected operating costs of the water system through 2030 are met.
- Recommendations:
  - Rate Study.
  - General Facility Charges Study.

Next Steps

// Next Steps

- Plan is sent to DOH for review.
- Plan is also sent to local governments and adjacent utilities.
- Final approval phase after comments are received.
  - Plan will be updated based on comments received.
  - SEPA process and Determination of Non-Significance.
- Final Plan is then ready for both DOH and City Council for final approval.

Questions??

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item F1)

Touch Date: 06/07/2021
Brief Date: 08/03/2021
Action Date: 08/17/2021

Department: Executive

Presented By: Jeff Niten

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:		**REVIEWED:**
☐	Dept. Head	
☐	Finance Director	
☐	Attorney	
☒	City Clerk	
☒	City Manager	JN

PROGRAM/PROJECT TITLE:
PUD 3 Franchise Agreement

ATTACHMENTS:
- Ordinance No. 1963-1220
- PUD 3 Franchise Agreement
- Public Notice

☒	Ordinance
☐	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:
City staff and representatives of PUD 3 have been working toward a Franchise Agreement to benefit the citizens of Shelton, protect the City's interests, as well as the individual utilities' needs.

There is no existing Franchise Agreement; rather this agreement replaces a city-wide Right-of-Way permit issued on February 13, 2017. The City has worked to ensure that provisions contained in this new agreement provide adequate protection of the public Right-of-Way and the City's ability to require movement of utilities consistent with City needs. This agreement grants a non-exclusive Franchise to PUD 3 for a primary term of ten (10) years.

The Franchise Agreements attached comply with Shelton Municipal Code (SMC) Chapter 5.44 and all applicable State and Federal regulations.

ANALYSIS/OPTIONS/ALTERNATIVES:
City staff propose the following as alternatives:
- Adopt the agreements as presented
- Request Staff re-enter negotiations over modifications to terms
- Take no action at this time

BUDGET/FISCAL INFORMATION:
None, other than applicable permit fees associated with specific projects.

PUBLIC INFORMATION REQUIREMENTS:
Information can be obtained through the City Clerk.

STAFF RECOMMENDATION/MOTION:
A recommended motion is: "I move to forward Ordinance No. 1963-1220 to the Action Agenda for the Council meeting on August 17, 2021 for further consideration."

ORDINANCE NO. 1963-1220

AN ORDINANCE OF THE CITY OF SHELTON, WASHINGTON, GRANTING A NONEXCLUSIVE FRANCHISE FOR THE TRANSMISSION, DISTRIBUTION AND SALE OF ELECTRICITY

This Electricity and Telecommunication Franchise ("Franchise") is entered into in Shelton, Washington, this 17th day of August 2021, by and between the City of Shelton, Washington, a municipal corporation, (hereinafter "City") and Public Utility District No. 3 of Mason County. (hereinafter "PUD 3"). The City and PUD 3 are sometimes referred to hereinafter collectively as the "parties."

WHEREAS, PUD 3 has applied for a nonexclusive Franchise to construct, operate, and maintain an electric line system in, across, over, upon, along, and under City of Shelton Rights-of-Way; and

WHEREAS, PUD 3 has applied for a nonexclusive Franchise to construct, operate, and maintain a telecommunication system in, across, over, upon, along and under City of Shelton Right-of-Way; and

WHEREAS, the City has reviewed PUD 3's performance, has identified the future electricity and telecommunication-related needs and interests of the City and its citizens, has considered the financial, technical and legal qualifications of PUD 3, and has determined that PUD 3's plans for constructing, operating and maintaining its System are adequate, in a full public proceeding affording due process to all concerned; and

WHEREAS, the public has had adequate notice and opportunity to comment on PUD 3's proposal to provide electricity and telecommunication services within the City; and

WHEREAS, the City has a legitimate and necessary regulatory role in ensuring the availability of electricity and telecommunication services in the franchise area; and

WHEREAS, the City is authorized by applicable law to grant one or more nonexclusive franchises to construct, operate and maintain electricity and telecommunication system or systems within the boundaries of the City.

NOW, THEREFORE, in consideration of the mutual promises made herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the City and PUD 3 do hereby agree as follows:

SECTION 1 GRANT OF FRANCHISE

The City hereby grants to PUD 3 a right and Franchise for the period of ten (10) years from and after the effective date of Ordinance 1963-1220 to construct, operate and maintain in, over, upon, and under the present and future Right-of-Way and easements within the present and future limits of the City, communication lines, electric power lines, and all necessary and desirable appurtenances thereto, for the purpose of providing communications and transmitting electric power and energy.

SECTION 2 FRANCHISE NONEXCLUSIVE

This Franchise shall be nonexclusive. The City may at any time grant authorization to use the Rights-of-Way for any purpose not incompatible with PUD 3's authority under this Franchise and for such additional franchises as the City deems appropriate.

SECTION 3 INDEMNIFICATION AND INSURANCE REQUIREMENTS

3.1 Indemnification

(A) General Indemnification. PUD 3 shall indemnify, defend and hold harmless the City, and its officers, officials, boards, commissions, agents and employees (while acting in an official capacity) from any action, claim, damage, loss, liability, cost or expense, including court and appeal costs and reasonable attorneys' fees and expenses, arising from any action, neglect, omission or inaction of PUD 3 its agents or employees including, but not limited to, delays on City construction projects caused by or arising out of PUD 3's failure to relocate its facilities in a timely manner. PUD 3 shall consult and cooperate with the City while conducting its defense of the City. If any such claim or demand is subject to RCW 4.24.115 and caused by or results from the concurrent negligence of (a) the City, its elected or appointed officials, or its agents or employees and (b) PUD 3, or its agents or employees, then in such event the defense and indemnity provisions provided for in the preceding paragraph 9.1 shall be valid and enforceable only to the extent of PUD 3's negligence. The City shall indemnify, defend and hold harmless PUD 3, and its officers, officials, boards, commissions, agents and employees (while acting in an official capacity) from any action, claim, damage, loss, liability, cost or expense, including court and appeal costs and reasonable attorneys' fees and expenses, arising from any action, neglect, omission or inaction of the City its agents or employees including, but not limited to, delays on PUD 3 construction projects caused by or arising out of City's failure to relocate its facilities in a timely manner. The City shall consult and cooperate with PUD 3 while conducting its defense of PUD 3. If any such claim or demand is subject to RCW 4.24.115 and caused by or results from the concurrent negligence of (a) PUD 3, its elected or appointed officials, or its agents or employees and (b) the City, or its agents or employees, then in such event the defense and indemnity provisions provided for in the preceding paragraph 9.1 shall be valid and enforceable only to the extent of the City's negligence.

(B) Procedures and Defense. The indemnified party shall give the other party timely written notice of any claim or of the commencement of any action, suit or other proceeding covered by the indemnity in this Section. If a claim or action arises, indemnified party shall then tender the defense of the claim to other within six (6) business days of receipt of such notice, which defense shall be at the indemnifying party's expense. The indemnified party may participate in the defense of a claim and, in any event, the Indemnifying party may not agree to any settlement of claims financially affecting the indemnified party without the indemnified party's prior written approval, which approval shall not be unreasonably withheld.

(C) Expenses. If separate representation to fully protect the interests of both parties is necessary, such as a conflict of interest between the indemnified party and the counsel selected

by indemnifying party to represent the indemnified party, the indemnifying party shall pay the expenses incurred by the indemnified party in defending itself with regard to any action, suit or proceeding indemnified. The indemnified party's expenses shall include all out of-pocket expenses that are necessary for the indemnified party defense, such as consultants' fees, and shall also include the reasonable value of any services rendered by the General Counsel/City Attorney or his/her assistants or any employees of the indemnified party or its agents but shall not include outside attorneys' fees for services that are unnecessarily duplicative of services provided the indemnified party by the indemnifying party.

3.2 Insurance Requirements

(A) General Requirement. PUD 3 must have adequate insurance during the entire term of this Franchise (and for a period of twelve [12] months thereafter) to protect the City against claims for death or injuries to Persons or damages to property or equipment which in any way relate to, arise from or are connected with this Franchise, or involve PUD 3, its agents, representatives, contractors, subcontractors and their employees.

(B) Minimum Insurance Limits. PUD 3 must keep insurance in effect in accordance with the minimum insurance limits herein set forth:

(1) Commercial General Liability: Two million dollars ($2,000,000) per occurrence and five million dollars ($5,000,000) general aggregate for bodily injury, personal injury and property damage.

(2) Automobile Liability: Three million dollars ($3,000,000) combined single limit per accident for bodily injury and property damage.

(3) Workers Compensation Insurance: In accordance with State law requirements.

(4) Excess Liability or Umbrella Coverage: One million dollars ($1,000,000).

The amounts listed above are the minimum deemed necessary by the City to protect the City's interests in this matter. The City has made no recommendation to PUD 3 as to the amount of insurance coverage necessary to protect PUD 3's interests. Any decision by PUD 3 to carry or not carry insurance amounts in excess of the above is solely that of PUD 3.

(C) Endorsements.

(1) All policies shall contain, or shall be endorsed so that:

(a) The City shall be designated as an additional insured;

(b) Any insurance or self-insurance maintained by the City, its officers, officials, boards, commissions, employees and agents shall be in excess of PUD 3's primary insurance and shall not contribute to it; and

(c) The policy shall contain a severability of interests provision. PUD 3's insurance shall apply separately to each insured against whom a claim is made or lawsuit is brought, except with respect to the limits of the insurer's liability.

(2) The insurance provided herein shall not be cancelled or the limits reduced so as to be out of compliance with the requirements of this Section without forty-five (45) days written notice first being given to the City. If the insurance is cancelled PUD 3 shall provide a replacement policy. PUD 3 agrees to maintain continuous uninterrupted insurance coverage, in the amounts required, for the duration of this Franchise (and as specified above, thereafter).

(D) Acceptability of Insurers. The City has reviewed PUD 3's self-insurance pool coverage and accepts the same.

(E) Verification of Coverage. PUD 3 shall furnish the City with certificates of insurance. The certificate for each insurance policy is to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificate for each insurance policy must be on standard forms or on such forms as are consistent with standard industry practices, and are to be provided to the City upon acceptance of this Franchise. PUD 3 hereby warrants that its insurance policies satisfy the requirements of this Franchise.

(F) Verification of Additional Insured Coverage. PUD 3 shall furnish the City with a written copy of the contract of additional insured coverage in a form acceptable to the City. If the additional insured coverage is part of PUD 3's insurance policy, then PUD 3 shall furnish a copy of those pages of its policy showing the City is covered as an additional insured to the City.

SECTION 4 GENERAL RIGHTS-OF-WAY USE AND CONSTRUCTION

4.1 Right to Construct

Subject to generally applicable laws, regulations, rules, resolutions, and ordinances of the City and the provisions of this Franchise, PUD 3 may perform all construction in the Rights-of-Way for any facility needed for the maintenance, operation or extension of PUD 3's Electrical System and/or Telecommunications System. Construction shall include repair, replacement, or installation that is needed to provide for the safe and reliable operations of electricity distribution and transmission facilities and fiber optic communications facilities within the right of way. Permissible activities may include:

- Emergency response (e.g., electrical or fiber outage response, downed power lines and/or replacement of poles due to weather or accidents);
- Tree trimming;
- Replacement, repair, or installation of street and/or security lighting;
- Replacement, repair, or installation of conductor (underground and overhead);
- Replacement, repair, or installation of transformers (pole and pad mounted) and/or overcurrent, regulation, capacitance, or sectionalizing devices;
- Replacement, repair, or installation of poles;
- Replacement, repair, or installation of guy wires;
- Replacement, repair, or installation of fiber or electric service drops;

- Replacement, repair, or installation or fiber optic communications or electrical distribution systems (e.g., transformers, protection devices, distribution huts, splice cases, service terminals, vaults, cabinets, poles, etc.)

4.2 Rights-of-Way Meetings

Subject to receiving advance notice, PUD 3 shall make reasonable efforts to attend and participate in meetings of the City regarding Rights-of-Way issues that may impact the Electricity and Telecommunication System.

4.3 General Standards

All work authorized and required hereunder shall be done in a safe, thorough and workmanlike manner. All installations of equipment shall be durable and installed in accordance with good engineering practices and in compliance with all federal, State, and local laws and regulations. PUD 3 shall promptly respond to any construction issues raised by the City and remedy any construction-related problems in a timely and responsive manner. To the maximum extent possible, PUD 3 shall utilize existing facilities in lieu of installing new equipment such as conduit, poles, or wires. This Franchise does not grant, give or convey to PUD 3 the right or privilege to install its facilities in any manner on specific utility poles or equipment owned by the City or any private third party. Equipment associated with PUD 3's Electricity and/or Telecommunication Systems may be in appropriate housing upon the surface of the ground. Nothing in this Franchise shall be construed to require PUD 3 to construct, operate, or maintain underground any ground-mounted appurtenances such as pedestals, provided that such facilities must be placed in accordance with City Code and any permit requirements.

4.4 Joint Trenching/Boring

To the extent it is economically feasible, PUD 3 shall joint trench or share bores or cuts and work with other providers (such as, but not limited to, gas, water, sanitary sewer), licensees, permittees, and franchisees so as to reduce the number of Rights-of-Way cuts within the City. PUD 3 shall follow all State law requirements for trench safety, including RCW 39.04.180.

4.5 Movement of Facilities During Emergencies

In the case of fire, disaster, or other emergency, the City may move, remove, or disconnect PUD 3's facilities and equipment located in the Rights-of-Way or on any other property of the City. The City shall provide reasonable notice to PUD 3 prior to taking such action and shall provide PUD 3 with the opportunity to perform such action unless, in the City's sole judgment, the imminent threat to public health, safety or welfare makes such notice impractical.

For the safety of all, a Qualified Worker meeting Washington State Labor & Industries requirements must be used to perform work that falls under this provision.

4.6 One Call

The Parties will maintain membership in good standing with the Utilities Underground Location Center or other similar or successor organization which is designated to coordinate underground equipment locations and installations. Parties shall abide by the State's "Underground Utilities" statutes (Chapter

19.122 RCW) and will further comply with and adhere to City regulations related to the One Call locator service program.

4.7 Permits Required for Construction

Prior to doing any work in the Rights-of-Way or other public property, PUD 3 shall apply for and obtain any permits necessary from the City. As part of the permitting process, the City may impose such conditions and regulations as are necessary for protecting any structures in such Rights-of-Way, for restoration of such Rights-of-Way, and for protection of the public and the continuity of pedestrian or vehicular traffic. PUD 3 shall pay all generally applicable fees for the requisite City permits.

4.8 Emergency Permits

In the event that emergency repairs are necessary, PUD 3 shall immediately notify the City of the need for such repairs. PUD 3 may initiate such emergency repairs and shall apply for appropriate permits within forty-eight (48) hours after completion of the repair.

4.9 Compliance with Applicable Codes

(A) City Codes. PUD 3 shall comply with all lawful and applicable City codes, including, without limitation, construction codes, building codes, the Fire Code, and zoning codes and regulations that do not conflict with PUD 3's contractual rights under this Franchise.

(B) Regulations and Safety Codes. PUD 3 shall comply with all lawful and applicable federal, State, and City safety requirements, rules, regulations, laws, and practices. By way of illustration and not limitation, PUD 3 shall comply with the National Electric Code, National Electrical Safety Code, and Occupational Safety and Health Administration (OSHA) Standards.

4.10 Least Interference

Work in the Rights-of-Way, or on other public property, shall be done in a manner that causes the least interference with the rights and reasonable convenience of adjacent property owners. PUD 3's Electricity System and Telecommunications System shall be located, erected, and maintained so as not to endanger the lives of Persons, or to interfere with new improvements the City may deem proper to make, or to unnecessarily hinder or obstruct the free use of the Rights-of-Way or other public property, and shall not unreasonably interfere with travel and use of public places by persons during the construction, repair, operation, or removal thereof. The City may require the removal or relocation of PUD 3's lines, cables, equipment, and other appurtenances that are in violation of this Section from the property in question at PUD 3's expense.

4.11 Prevent Injury/Safety

PUD 3 shall provide and use any equipment and facilities necessary to control and carry PUD 3's signals so as to prevent injury to the City's property or property belonging to any Person. PUD 3, at its own expense, shall repair, renew, change, and improve its facilities to keep them in good repair, and safe and presentable condition. All excavations made by PUD 3 in the Rights-of-Way shall be properly safeguarded for the prevention of accidents.

4.12 Notice to Private Property Owners

Except in the case of an emergency involving public safety or an outage, or service interruption to a large number of customers or subscribers, PUD 3 shall give reasonable advance notice to private property owners of construction work on or in adjacent Rights-of-Way. If PUD 3's work is a result of a larger City project, other public project, or a private developer project, Notice to Property Owners and detailed project information that my affect their property shall be the responsibility of the lead agency, or the City. PUD 3 may, at its discretion, supplement other customer communication regarding the impact of PUD 3's facilities and operations.

4.13 Clear Zone Requirements

PUD 3 recognizes the need for the City to maintain adequate width for installation and maintenance of sanitary sewer, water, and storm drainage utilities owned by the City, and other public utility providers.

Thus, the City reserves the right to maintain clear zones with the Rights-of-Way for installation and maintenance of said utilities. The clear zones for each Rights-of-Way segment shall be noted and conditioned with the issuance of each Rights-of-Way permit. If adequate clear zones are unable to be achieved on a particular Right-of-Way, PUD 3 shall locate in an alternate Right-of-Way or propose alternate construction methods which maintain and/or enhance the existing clear zones.

4.14 Underground Construction; Location & Relocation of Facilities

PUD 3 will cooperate with the City, developers, and with other affected utilities in the underground construction of new electricity distribution and telecommunications facilities within the franchise area, which shall be at developer or requestor expense.

A. PUD 3 shall, at its sole expense, relocate its overhead facilities upon request by the City if:

    (1) Necessary to accommodate City capital projects, provided that the City has reasonably complied with the notification requirements of this Section, and provided that if the City requests relocation for a second time in a five year period, the City shall bear the costs of the second relocation; or
    (2) Due to unforeseen emergencies as necessary to protect the public health, welfare, and safety.

B. If the City requests that existing PUD 3 facilities be relocated underground, the City shall reimburse the PUD the incremental cost of underground construction compared to aerial relocation. The PUD 3 shall comply with all federal, state, and local regulations on undergrounding.

C. If the City determines that a City project necessitates the relocation of PUD 3's existing facilities, then:

    (1) Within a reasonable time, which shall be no less than 90 days prior to the necessary relocation, the City shall provide PUD 3 with written notice requiring relocation; provided that in the event of an emergency beyond the control of the City and which

will result in severe financial consequences to the City or its citizens or businesses, the City shall give PUD 3 as much advance written notice as is practicable;

(2) When City projects are under consideration and/or preliminary Funding Application Level Design (e.g. “10% Design”) begins, the City will contact PUD 3 to schedule an initial project scope meeting so tentative plans, system impact studies, community partnerships, and enhanced communication can begin with as much preparation time as possible.

(2) The City shall provide PUD 3 with copies of information for such improvement project and a proposed location for PUD 3’s facilities so that PUD 3 may relocate its facilities in the Rights-of-Way in order to accommodate the project; and

(3) In calculating the date that relocation must be completed, the City shall consult with PUD 3 and other franchise holders and consider the extent of facilities to be relocated, the service requirements, and the construction sequence for the relocation, within the City's overall project construction sequence and constraints, to safely complete the relocation. PUD 3 shall complete the relocation by the date specified, unless the City establishes a later date for completion, after a showing by PUD 3 that the relocation cannot be completed by the date specified using best efforts and meeting safety and service requirements. In the event of an emergency as described in this Section, PUD 3 shall relocate its facilities within a reasonable time period specified by the City.

(4) The City and/or Requestor shall provide traffic-control, permitting, trenching, backfill, and restoration for the relocation of PUD 3’s facilities if the new facilities are to be placed underground. The undergrounding of the electric or telecommunications underground infrastructure may extend outside of the project boundaries in order to accommodate the request, and this must be included in eligible relocation costs and plans.

(5) To ensure proper space and availability in a supplied joint trench, PUD 3 shall pay for the work (time and materials) necessary to complete Electric System and/or Telecommunications related engineering and coordination with the other utilities involved in the project.

D. PUD 3 may, after receipt of written notice requesting a relocation of its facilities, submit to the City written alternatives to such relocation. The City shall evaluate such alternatives and advise PUD 3 in writing if one or more of the alternatives are suitable to accommodate the work, which would otherwise necessitate relocation of the facilities. If so requested by the City, PUD 3 shall submit additional information to assist the City in making such evaluation. The City shall give each alternative proposed by PUD 3 full and fair consideration, within a reasonable time, so as to allow for the relocation work to be performed in a timely manner. In the event the City ultimately determines that there is no other reasonable alternative, PUD 3 shall relocate its facilities as otherwise provided in this Section.

E. In the event that the City requests PUD 3 to relocate its facilities for a project which is primarily for benefit of a third-party, the PUD 3 shall relocate its facilities contingent upon permit approvals from the City and the third party's entry into a reimbursement agreement with PUD 3.

F. In the event the City establishes a Local Improvement District (LID) to fund a relocation or conversion project, PUD 3 shall be reimbursed by the LID for all expenses incurred as a result of the project.

At the City's request, PUD 3 shall supply drawings or other documentation indicating the location of its facilities within City streets and rights-of-way.

4.15 Additional Ducts and Conduits

PUD 3 and the City recognize that situations may occur in the future where the City may desire to place its own fiber optic cable in trenches or bores opened by PUD 3. PUD 3 agrees to cooperate with the City in any construction that involves trenching or boring, provided that the City has first provided reasonable notice to PUD 3 in some manner that it is interested in sharing the trenches or bores in the area where PUD 3's construction is occurring. PUD 3 shall allow the City to lay City conduit in PUD 3's trenches and bores, provided that the City shares pro rata in the cost of the trenching and boring with PUD 3. The City shall be responsible for maintaining its respective conduit, which is buried in PUD 3's trenches and bores. The City agrees that any conduit placed in these projects shall not now or throughout the term of this Franchise be utilized to provide services that interfere with the services provided by PUD 3 or be provided for access by a private, for-profit electricity or telecommunications company.

(A) If PUD 3 is constructing, relocating, or placing ducts or conduits in the Rights-of-Way and upon request by the City, additional duct or conduit and related structures necessary to access the duct or conduit shall be provided for the City, subject to the following conditions:

(1) The City shall not require that the additional duct or conduit space be connected to the access structures and vaults of PUD 3.

(2) Upon written request by the City for a cost estimate to share a trench or bore within a Right-of-Way, PUD 3 shall prepare such estimate and present the same to the City within sixty (60) days thereafter regarding the incremental costs and Fully Allocated Costs of providing the City with ducts, conduits, and related structures necessary to access the conduit or duct and of the date such construction, relocation, or placement will begin. If PUD 3 and the City disagree regarding the appropriateness of the proposed incremental and Fully Allocated Costs, the parties may negotiate.

(3) The City may require PUD 3 to furnish such additional duct or conduit and the related structures necessary to access the conduit or duct for the incremental costs by so notifying PUD 3 no later than sixty (60) days after the information referred to in subsection (B) is provided by PUD 3 or a court.

(4) If the City requires PUD 3 to furnish additional duct, conduit, or related structures pursuant to this subsection, PUD 3 shall construct the facilities to the same standards as PUD 3's other new facilities, and shall turn such additional duct, conduit or related

structures over to the City upon completion of same and satisfactory inspection thereof by the City.

(5) Any duct or conduit and related structures necessary to access the duct or conduit that are furnished by PUD 3 to the City pursuant to this Section shall be used exclusively by, and directly for, the City for any commercial or noncommercial purposes.

All provisions for the placement of Additional Ducts and Conduits within this section bilaterally also apply to the City's open trench and/or directional bore projects. The City shall notify PUD 3 of all such projects prior to 90 days before work commencement, or during preliminary designs, whichever is sooner.

4.16 Restoration of Property

(A) PUD 3 shall protect public and private property from damage. If damage occurs, PUD 3 shall promptly notify the property owner within twenty-four (24) hours.

(B) In the event PUD 3 disturbs or damages any Rights-of-Way or other public property, PUD 3 shall promptly restore the Rights-of-Way or property to at least its prior condition, normal wear and tear excepted.

(C) PUD 3 shall warrant any street restoration work performed by or for PUD 3 in the Rights-of-Way or on other public property for the greater of one (1) year or for the life of the asphalt street patch until overlay occurs, provided that no action by a third party or acts of nature materially affects the integrity of PUD 3's street cut work, unless a different period is required by the City Code. If street cut work is not satisfactorily performed by PUD 3 within a reasonable time, the City may, after prior notice to PUD 3, or without notice where the disturbance or damage may create a risk to public health or safety, cause the work to be done and recover the reasonable cost of the work from PUD 3. Within forty-five (45) days of receipt of an itemized list of those costs, including the costs of labor, materials and equipment, PUD 3 shall pay the City.

(D) Upon completion of the work that caused any disturbance or damage, PUD 3 shall promptly commence restoration of the property, and will use its best efforts to complete temporary restoration within twenty-four (24) hours, and permanent restoration within 90 days, considering the nature of the work that must be performed.

4.17 Discontinuing Use

Whenever PUD 3 intends to discontinue using any facility within the Rights-of-Way, PUD 3 shall notify the City of its intention. PUD 3 may remove the facility or request that the City permit it to remain in place. Notwithstanding PUD 3's request that any such facility remain in place, the City may require PUD 3 to remove the facility from the Rights-of-Way or modify the facility to protect the public health, welfare or safety. The City may require PUD 3 to perform a reasonable combination of modification and removal of the facility. PUD 3 shall complete such removal and/or modification respectively in accordance with a schedule reasonably set by the City. Until such time as PUD 3 removes or modifies the facility as reasonably directed by the City, or until the rights to and responsibility for the facility are accepted by another Person having authority to use, construct and/or maintain such facility, PUD 3 shall

retain all liability for such facility and shall remain responsible for all necessary repairs and relocations of the facility in the same manner and degree as if the facility were in active use.

4.18 LED Street Lights

PUD 3 shall keep the LED streetlight system in good repair and working condition. PUD 3 shall charge the City at PUD 3's Schedule 41 rate for outdoor lighting as now adopted or hereinafter amended. All PUD 3 electrical service rules and regulations shall apply to billings and payments. City-owned LED streetlight poles shall not be subject to PUD 3 charges and assessments.

PUD 3 shall perform maintenance on the City-owned streetlight poles as needed and upon request by the City, subject to PUD 3's then existing labor and equipment rates, and scheduling availability.

Upon request from the City, PUD 3 shall install or replace the City's streetlight poles, vaults, and/or conduits, and bill the City for the work at PUD 3's then existing labor and equipment rates. In such projects, the City shall provide all traffic control, trenching, backfilling, restoration, permitting, and easements, and shall work with PUD 3 to determine acceptable locations and specifications of infrastructure. All staking of agreed upon pole locations shall be provided by the City.

The City shall have priority to utilize GFI outlets on the light poles for Christmas decorations or other uses. The City shall notify PUD 3 of the dates of installation and removal of lighted decorations, along with the actual wattage and count of each fixture. Unmetered electricity shall be billed to the City, or its designee, at PUD 3's Schedule 20 (small commercial) rate or Unmetered Device rate, at PUD 3's discretion.

4.19 Movement of System Facilities for Other Franchise or Permit Holders

If any removal, replacement, modification or disconnection of the Electricity System and/or Telecommunication System is required to accommodate the construction, operation, or repair of the facilities or equipment of another City franchise or permit holder, PUD 3 shall, after at least forty-five (45) days advance written notice, take action to effect the necessary changes requested by the responsible entity. PUD 3 may require that the costs associated with the removal, replacement, modification, or disconnection of the Electricity System and/or Telecommunication System be paid by the benefited party, and PUD 3 may require a reasonable deposit of the estimated payment in advance.

4.20 Reservation of City Use of Rights-of-Way

Nothing in this Franchise shall prevent the City from constructing sewers; grading, paving, repairing or altering any Rights-of-Way; laying down, repairing or removing water mains; installing conduit or fiber optic cable; or constructing or establishing any other public work or improvement. All such work shall be done, insofar as practicable, so as not to obstruct, injure or prevent the use and operation of PUD 3's Electricity System and/or Telecommunication System.

4.21 Tree Trimming

PUD 3 may prune or cause to be pruned, using proper pruning practices, any tree in the Rights-of-Way which interferes with the reliability, construction, operations, and maintenance of PUD 3's Electricity System and/or Telecommunication System. PUD 3 shall comply with any and all City regulations regarding tree trimming, including obtaining a permit, if required, to remove Right-of-Way trees.

Except in emergencies, before pruning trees at a point below fifteen and a half (15.5) feet above the sidewalk grade, PUD 3 will make a reasonable attempt to contact the owner or occupant of the premises abutting the rights of way in or over which the tree is growing. For purposes of this subsection, emergencies exist when it is necessary to prune to protect the public or PUD 3's facilities from imminent danger.

4.22 Inspection of Construction and Facilities

The City may inspect any of PUD 3's facilities, equipment, or construction within the Rights-of-Way and on other public property in the franchise area. If an unsafe condition is found to exist, the City, in addition to taking any other action permitted under applicable law, may order PUD 3, in writing, to make the necessary repairs and alterations specified therein forthwith to correct the unsafe condition within a reasonable amount of time established by the City. The City has the right to inspect, repair, and correct the unsafe condition if PUD 3 fails to do so, and to reasonably charge PUD 3 therefore.

For the safety of all, a Qualified Worker meeting Washington State Labor & Industries requirements must be used to perform work that falls under this provision.

4.23 Stop Work

On notice from the City that any work is being performed contrary to the provisions of this Franchise, or in an unsafe or dangerous manner as reasonably determined by the City, or in violation of the terms of any regulations or permits issued, then the work may immediately be stopped by the City.

The stop work order shall:

(1) Be in writing;

(2) Be given to the person doing the work, or be posted on the work site;

(3) Submitted via email to PUD 3’s Director of Engineering & Utility Services and Operations Manager;

(4) Indicate the nature of the alleged violation or unsafe condition;

(5) Establish conditions under which work may be resumed; and

(6) Provide the name and contact information for the representative of the City for further discussion.

4.24 Nonconforming or Unauthorized Conditions

Whenever the City determines that PUD 3 has taken any action or caused any condition within the franchise area in violation of the City Code that results in or produces any unsafe, nonconforming, or unauthorized condition, the City may order the correction or discontinuance of such condition or any activity causing such condition, or order the taking of any other remedial action, pursuant to applicable provisions of the City Code.

4.25 Work of Contractors and Subcontractors

PUD 3's contractors and subcontractors shall be licensed and bonded in accordance with the City's generally applicable regulations. Work by contractors and subcontractors is subject to the same restrictions, limitations and conditions as if the work were performed by PUD 3. PUD 3 shall be responsible for all work performed by its contractors and subcontractors and others performing work on its behalf as if the work were performed by it, and shall ensure that all such work is performed in compliance with this Franchise and other applicable laws, and shall be jointly and severally liable for all damages and correcting all damage caused by them. It is PUD 3's responsibility to ensure that contractors, subcontractors, or other Persons performing work on PUD 3's behalf are familiar with the requirements of this Franchise and other applicable laws governing the work performed by them.

SECTION 5 FRANCHISE FEES AND UTILITY TAX

5.1 Franchise Fees

As specifically provided by RCW 35.21.860, the City may not impose a franchise fee or any other fee or charge of whatever nature or description upon PUD 3. However, as provided in RCW 35.21.860, PUD 3 shall reimburse and pay the City's actual administrative expenses incurred by the City that are directly related to: (i) receiving and approving a permit or license, (ii) inspecting plans and construction, or (iii) preparing detailed statement pursuant to Chapter 43.21C RCW.

5.2 Tax Liability

Utility Tax. PUD 3 acknowledges that the City is authorized under RCW 35.21.870, as amended, and Shelton Municipal Code 3.38 and 3.48, to impose a utility tax on PUD 3 for provision of electrical services. Nothing in this Franchise shall exempt nor be construed to exempt PUD 3 from payment of the City's utility tax, currently 6% of total gross receipts for both electrical and non-exempt telecommunications, in accordance with the City's Code.

SECTION 6 MISCELLANEOUS PROVISIONS

6.1 Local Employment Efforts

PUD 3 shall use reasonable efforts to utilize qualified local contractors, including minority business enterprises and woman business enterprises, whenever PUD 3 employs contractors to perform work under this Franchise.

6.2 Notices

Throughout the term of this Franchise, each party shall maintain and file with the other a local address for the service of notices by mail. All notices shall be sent to such respective address, and such notices shall be effective upon the date of mailing. At the effective date of this Franchise:

PUD 3's address shall be:

Mason PUD 3
Attention: General Manager; and Director of Engineering & Utility Services
PO Box 2148

2621 E Johns Prairie Road
Shelton, WA 98584

The City's address shall be:

City of Shelton
Attention: City Clerk; Finance Director; and City Manager
525 W. Cota Street
Shelton, WA 98584

6.3 Cumulative Rights

Subject to applicable law, all rights and remedies given to the City by this Franchise or retained by the City herein shall be in addition to and cumulative with any and all other rights and remedies, existing or implied, now or hereafter available to the City, at law or in equity, and such rights and remedies shall not be exclusive, but each and every right and remedy specifically given by this Franchise or otherwise existing may be exercised from time to time and as often and in such order as may be deemed expedient by the City, and the exercise of one or more rights or remedies shall not be deemed a waiver of the right to exercise at the same time or thereafter any other right or remedy.

6.4 Binding Effect – Cancellation of Interlocal Agreements

This Franchise shall be binding upon the parties hereto, their permitted successors and assigns. The 2017 Interlocal Agreement for Recurring Annual Right of Way Permit is cancelled and of no further effect.

The following interlocal agreements for LED Street and Pedestrian Lighting are superseded and therefore cancelled:

1. 2018 Interlocal Agreement for LED Street and Pedestrian Lighting
2. 2015 Amended Interlocal Agreement for LED Street Lighting
3. 2013 Interlocal Agreement for LED Street Lighting Project

6.5 Authority to Amend

This Franchise may also be amended at any time by mutual written agreement between the parties.

6.6 Disputes and Venue

If any disputes shall arise concerning application or interpretation of this Agreement, the Parties shall first attempt to resolve the dispute through negotiation, with or without the help of a professional mediator. Venue for any dispute related to this Franchise shall be in Mason County Superior Court.

6.7 Governing Laws

This Franchise shall be governed, construed and enforced in accordance with the laws of the State of Washington (as amended), and any other applicable local, State and federal laws, rules, regulations, legislation or orders (as such now exist, are later amended or subsequently adopted).

6.8 No Joint Venture

Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the parties, and neither party is authorized to, nor shall either party act toward third persons or the public in any manner which would indicate any such relationship with the other.

6.9 Waiver

The failure of the City at any time to require performance by PUD 3 of any provision hereof shall in no way affect the right of the City hereafter to enforce the same, nor shall the waiver by the City of any breach of any provision hereof be taken or held to be a waiver of any succeeding breach of such provision, or as a waiver of the provision itself or any other provision.

6.10 Severability

If any Section, subsection, paragraph or provision of this Franchise is determined to be illegal, invalid or unconstitutional by any court or agency of competent jurisdiction, such determination shall have no effect on the validity of any other Section, subsection, paragraph or provision of this Franchise, all of which will remain in full force and effect for the term of the Franchise.

6.11 Entire Agreement

This Franchise and Exhibit represent the entire understanding and agreement between the parties hereto with respect to the subject matter hereof and supersede all prior oral and written negotiations between the parties.

6.12 Force Majeure

In the event PUD 3 is prevented or delayed in the performance of any of its obligations under this Franchise by a reason beyond the control of PUD 3, PUD 3 shall have a reasonable time, under the circumstances, to perform the affected obligation under this Franchise or to procure a substitute for such obligation which is satisfactory to the City. Those conditions which are not within the control of PUD 3 include, but are not limited to, natural disasters, civil disturbances, severe or unusual weather conditions which have a direct and substantial impact on PUD 3's ability to provide Electricity Service and/or Telecommunication Services in the City, work delays caused by waiting for utility providers to service or perform make-ready services on their utility poles or other facilities to which PUD 3's Electricity System and/or Telecommunication System is attached, and PUD 3's inability to obtain federal, State or railroad permits despite PUD 3's best efforts to do so. If PUD 3 believes that a reason beyond its control has prevented or delayed its compliance with the provisions of this Franchise, PUD 3 shall provide documentation as reasonably required by the City to substantiate PUD 3's claim. If PUD 3 has not yet cured the deficiency, PUD 3 shall also provide the City with its proposed plan for remediation, including the timing for such cure.

6.13 Attorneys' Fees

If any action or suit arises in connection with this Franchise, the Parties shall bear their own expenses, including attorney fees and court costs.

6.14 Actions of the City or PUD 3

In any action by the City or PUD 3 mandated or permitted under the terms hereof, it shall act in a reasonable, expeditious and timely manner. Furthermore, in any instance where approval or consent is required under the terms hereof, such approval or consent shall not be unreasonably withheld.

6.15 Acceptance

Within thirty (30) days of receipt of the Franchise after its execution by the City, this Franchise shall be formally adopted by PUD 3's legislative body in accordance with PUD 3's procedures and State law.

IN WITNESS WHEREOF, this Franchise is signed in the name of the City of Shelton, Washington, this ____ day of _____ 20____.

CITY OF SHELTON

By _____.

Mayor

ATTEST:

_____.

City Clerk

APPROVED AS TO FORM:

_____.

City Attorney

ACCEPTED AND APPROVED this _____ day of _____ 20_____.

Mason PUD 3

By _____.

Its _____.

CITY OF SHELTON
525 W. COTA ST.
SHELTON, WA 98584

TO: Shelton-Mason County Journal

DATE: July 19, 2021

Please publish the following notice on July 22, 2021

NOTICE OF PUBLIC HEARING
for the
CITY OF SHELTON

ORDINANCE NO. 1963-1220

AN ORDINANCE OF THE CITY OF SHELTON, WASHINGTON, GRANTING A NONEXCLUSIVE FRANCHISE FOR THE TRANSMISSION, DISTRIBUTION AND SALE OF ELECTRICITY

The City Council will conduct a public hearing on August 3, 2021 at 6:00 p.m. to consider adoption of a Franchise Agreement with PUD 3. The public is invited to comment on the above referenced matters, or provide written testimony to the City Clerk.

Donna Nault
City Clerk
(360) 810-0351

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item G1)

Touch Date: 07/06/2021
Brief Date: 07/20/2021
Action Date: 08/03/2021

Department: Finance

Presented By: Aaron BeMiller

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:		**REVIEWED:**
☐	Dept. Head	
☒	Finance Director	6/3/2021
☒	Attorney	6/3/2021
☒	City Clerk	6/3/2021
☒	City Manager	6/3/2021

PROGRAM/PROJECT TITLE:
Sewer Averaging for Summer Consumption
ATTACHMENTS:
Ordinance No. 1972-0621

☒	Ordinance
☐	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:
Shelton Municipal Code section 14.28 establishes that for the months of June, July, August, and September the consumption charge for each such month shall be based on the average water consumption of the preceding billings for the months of November, December, January, February, and March.

Due to large number of misreads in September and October 2020, a number of customers November bill was higher than it normally would have been. In the interest of fairness to all customers, this Ordinance will eliminate the month of November from the 2021 summer sewer averaging calculation. This Ordinance will become null and void beginning November 1, 2021, the point in which summer averaging ends for 2021.

ANALYSIS/OPTIONS/ALTERNATIVES:

BUDGET/FISCAL INFORMATION:

PUBLIC INFORMATION REQUIREMENTS:
Information can be obtained from the City Clerk.

STAFF RECOMMENDATION/MOTION:
“I move that we approve Ordinance No. 1972-0621 as presented”.

ORDINANCE NO. 1972-0621

AN ORDINANCE OF THE CITY OF SHELTON, WASHINGTON, TEMPORARILY ADJUSTING SEWER AVERAGING FOR SUMMER CONSUMPTION CHARGE FOR CALENDAR YEAR 2021

WHEREAS, the City has duly passed Ordinances basing summer sewer rates in part on an averaging of winter water consumption; and

WHEREAS, Shelton Municipal Code Chapter 14.28 assigns the months of November, December, January, February, and March as the months for calculating the average summer consumption charge; and

WHEREAS, due to necessary adjustments that increased the November billing for many customers, the City Council, in the interest of fairness to customers, wishes to temporarily modify the averaging to exclude the month of November 2020 in the calculation for 2021; and

WHEREAS, this Ordinance will be in effect only for the months June, July, August, September, and October 2021 after which the Ordinance will be null and void.

NOW, THEREFORE, be it ordained by the City Council of the City of Shelton, Washington, as follows:

Section 1.

The averaging methodology contained in 14.28.020 (C) and 14.28.040 (C) of the Shelton Municipal Code is temporarily suspended. During the billing months of June, July, August, September, and October of 2021, the consumption charge for each such month shall be based on the average water consumption of the preceding billing months of December 2020 and January, February, and March of 2021 recorded for that account.

Section 2.

This Ordinance will become null and void on November 1, 2021, at which point City staff shall resume application of existing Shelton Municipal Code Chapter 14.28.020 (C) and 14.28.040 (C).

Section 3.

This ordinance shall become effective five days from the date of passage and publication.

INTRODUCED the 20th day of July 2021.

ADOPTED by the City Council of the City of Shelton, Mason County, Washington at a regular open public meeting held the 3rd day of August 2021.

Passed this _____ day of _____ 2021.

_____
Kevin Dorcy, Mayor

AUTHENTICATED:

_____
Donna Nault, City Clerk

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item G2)

Touch Date: 06/14/2021
Brief Date: 07/20/2021
Action Date: 08/03/2021

Department: Public Works (EM&R)

Presented By: Jay Harris

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:		**REVIEWED:**
☒	Dept. Head	JOH
☐	Finance Director	
☐	Attorney	
☒	City Clerk	
☐	City Manager	

PROGRAM/PROJECT TITLE:
Roller Surplus

ATTACHMENTS:
Resolution No. 1203-0621

☐	Ordinance
☒	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:
The EM&R Department is requesting authorization from Council to surplus its 1995 – Bomag BW 120 AD Double Drum Roller. The EM&R Department purchased a new 47" Bomag BW 120 SL-5 Double Drum Roller last year and no longer needs this aging vehicle in the fleet. The newer roller provides increased efficiency due to greater compaction, greater ergonomic controls and an improved water spray bar assembly. The O&M (Operations and Maintenance) costs and purchase of the newer more efficient equipment have driven this decision. The EM&R Department will send the Bomag BW 120 AD to the Department of Enterprise Services for them to surplus the roller.

Asset Information: Vehicle 1995 Bomag BW 120 AD Double Drum Roller, Asset # 1261C, VIN #101170510420, 1,076 Hours. Per Machinerytrader.com worth about $6,000.00 if sold to a private party.

ANALYSIS/OPTIONS/ALTERNATIVES:
Council can choose to not surplus this piece of equipment but the value can potentially decrease the longer it remains a City asset.

BUDGET/FISCAL INFORMATION:
Estimated value $6,000.00.

PUBLIC INFORMATION REQUIREMENTS:
Further information can be obtained through the Public Works Department

STAFF RECOMMENDATION/MOTION:
Staff requests a reading of Resolution No. 1203-0621 and: "*I move to adopt Resolution Number 1203-0621, a resolution declaring a 1995 Bomag double drum roller surplus and authorizing its disposal in a manner provided by law*".

RESOLUTION NO. 1203-0621

A RESOLUTION OF THE CITY OF SHELTON, WASHINGTON DECLARING CITY PROPERTY SURPLUS TO THE NEEDS OF THE CITY, AND DISPOSING OF SUCH PROPERTY FOR THE COMMON BENEFIT.

WHEREAS, RCW 35A.11.010 and 35A.79.010 allow a municipal code city to dispose of property for the common benefit; and

WHEREAS, the City owns equipment that is no longer needed in order to perform the business of the EM&R Department; and

WHEREAS, a public hearing is not required for the surplus of this item, as it was not originally purchased for a public utility.

NOW, THEREFORE BE IT RESOLVED, by the City Council of the City of Shelton, Washington, as follows:

Section 1.

1. The property of the City of Shelton EM&R Department, shown below, is hereby declared surplus to the needs of the City and no longer necessary for City of Shelton service:

Vehicle	License#	Asset#	VIN#	Mileage	Surplus	Est. Value
1995 Bomag BW 120AD3 double drum roller	N/A	1261C	101170510420	1,076 Hrs	Complete Roller	$6,000.00

2. Disposal of property listed above is declared to be for the common benefit.

3. Disposal of the property herein declared surplus will be disposed of in the manner provided by law.

INTRODUCED on this 20th day of July 2021 and **PASSED** by the City Council of the City of Shelton on this 3rd day of August 2021.

ATTEST: Mayor Dorcy

City Clerk