Shelton City Council
Meeting Agenda
April 6, 2021 at 6:00 p.m.
Virtual Platform

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

B. Council Reports

C. Consent Agenda (Action)
1. Voucher numbered 104430 in the amount of $7,592.90
2. Vouchers numbered 104431through 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

D. General Public Comment (3-minute time limit)

E. Business Agenda (Study/No Action/Public Comment Taken)
1. Park Property Acquisitions – Presented by Community Development Director Mark Ziegler
2. Shannon Park Property Acquisitions – Presented by Community Development Director Mark Ziegler
3. Traffic Box Wrap Recommendations – Presented by Community Development Director Mark Ziegler
4. Resolution No. 1190-0221 Sweeper Equipment Purchase – Presented by Public Works Technician Jared Welander
5. Streamflow Restoration Planning – Presented by City Engineer Ken Gill

F. Action Agenda (Action/Public Comment Taken)
1. Municipal Code Steering Committee Appointments – Presented by Community Development Director Mark Ziegler
2. Resolution No. 1189-0221 Well 1 Rehab Design Contract Amendment No. 2 – Presented by Public Works Director Jay Harris
3. Veterans Village NEPA Certification – Presented by Senior Planner Jason Dose
4. Resolution No. 1191-0221 SHS Special Use Permit Acceptance – Presented by Senior Planner Jason Dose
5. Resolution No. 1192-0321 Master Fee Schedule Update – Presented by Finance Director Aaron BeMiller

G. Administration Reports
1. City Manager Report

H. New Items for Discussion

I. Announcement of Next Meeting – April 20, 2021 at 6:00 p.m.

J. Adjourn

Special Note for Public Participation

The meeting can be viewed at: masonwebtv.com
The public can provide comments by:
Email: jeff.niten@sheltonwa.gov
Telephone: (360) 432-5105
Joining the Zoom meeting by clicking on the link posted on the City Council's webpage

Your comments will be relayed directly to the Council.

2021 Looking Ahead

(Items and dates are subject to change)

Fri. 4/16		Send notice to The Journal for Public Hearing on 5/4	N/A
Tues. 4/20 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • MyCivic App Demonstration • Water Comprehensive Plan Update Business Agenda • Public Hearing Ordinance No. 1969-0321 Amending SMC Title 13, Stormwater • MOU with SC Johnson • Shelton Skate Park ILA Action Agenda • Park Property Acquisitions • Resolution No. 1190-0221 Sweeper Equipment Purchase • Traffic Box Wrap Recommendations Administration Report •	Packet Items Due: Fri. 4/9 – 5:00 p.m.
Tues. 5/4 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • 2020 Year-End Financials & 2021 1st Quarter Report Business Agenda • Public Hearing Ordinance No. 1961-1220 City of Shelton Code Chapter Consolidation-Utility Taxes • Public Hearing Ordinance No. 1968-0321 Water Comp Plan Adoption Action Agenda • Ordinance No. 1969-0321 Amending SMC Title 13, Stormwater • MOU with SC Johnson • Shelton Skate Park ILA Administration Report •	Packet Items Due: Fri. 4/23 – 5:00 p.m.
Tues. 5/18 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • Action Agenda	Packet Items Due: Fri. 5/7 – 5:00 p.m.

Updated 03/29/2021

		• Ordinance No. 1961-1220 City of Shelton Code Chapter Consolidation-Utility Taxes • Ordinance No. 1968-0321 Water Comp Plan Adoption Administration Report •	
Tues. 6/1 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • Public Hearing Ordinance No. 1963-1220 Franchise Agreement – PUD #3 • Resolution No. 1186-1220 Surplus Computer Equipment • C Street Landfill Update Action Agenda • Administration Report •	Packet Items Due: Fri. 5/21 – 5:00 p.m.
Tues. 6/15 5:45 p.m.	SMPD Meeting	Consent Agenda • Vouchers/Meeting Minutes Business Agenda • Action Agenda • Administration Report •	Packet Items Due: Fri. 6/4 – 5:00 p.m.
Tues. 6/15 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • Action Agenda • Ordinance No. 1963-1220 Franchise Agreement – PUD #3 • Resolution No. 1186-1220 Surplus Computer Equipment Administration Report	Packet Items Due: Fri. 6/4 – 5:00 p.m.
Tues. 7/6 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • Action Agenda • Administration Report •	Packet Items Due: Fri. 6/25 – 5:00 p.m.

Tues. 7/20 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentations • Business Agenda • Action Agenda • Administration Report •	Packet Items Due: Fri. 7/9 – 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 numbered 104430 in the amount of $7,592.90 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 12th of March, 2021.

for Director of Financial Services, Accounting Manager

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 104431 through number 104479 in the total amount of $134,745.68 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 19th of March, 2021.

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 104480 through number 104549 in the total amount of $299,199.96 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 25TH of MARCH, 2021.

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

CITY OF SHELTON, WASHINGTON - CITY COUNCIL
City Council Meeting Minutes
January 19, 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
Public Works Director Jay Harris
Finance Director Aaron BeMiller
Police Chief Carole Beason
Accounting Manager Teri Schnitzer
Senior Planner Jason Dose

CALL TO ORDER

Call to Order: 6:00 p.m.
Pledge of Allegiance – Councilmember Boad
Roll Call: City Clerk Nault – All present, (Mayor Dorcy joined the meeting at 6:11 p.m.)

LATE CHANGES TO THE AGENDA

No late changes.

Deputy Mayor Peterson – The public is able to make comments on both the business and action agenda. There are three options for the public to participate in the meeting: (1) join the Zoom meeting by clicking on the link on the city's website, (2) email jeff.niten@sheltonwa.gov, and (3) by calling 360-432-5105.

COUNCIL REPORTS

City Councilmembers attended or participated in the following:

- State Auditor Exit Interview
- Opioid Use Reduction/Joint Opioid Task Force
- Watershed Restoration and Enhancement Committee Meeting

Councilmember Schmit exercised a point of personal privilege to commend the community on their engagement and thoughtful communications with City Council on the Workforce Housing Project that is currently under discussion.

CONSENT AGENDA

1. Voucher numbered 103842 in the amount of $2,453.59
2. Vouchers numbered 103843 through 103896 in the total amount of $171,953.39
3. Vouchers numbered 103926 through 103934 in the total amount of $20,615.86
4. Quarterly Report-Quixote Communities – Written by Executive Director Jaycie Osterberg

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

PRESENTATIONS

1. Swearing-in Video of Police Chief Carole Beason
   Due to the virtual platform, City Council viewed a videotaped swearing-in ceremony of Shelton Police Chief Beason.

2. Shoreline Master Program Update – Presented by Sr. Planner Jason Dose
   Sr. Planner Dose reported staff is working with the Department of Ecology on its Shoreline Master Program to meet updated laws and requirements mandated by the Washington State Legislature. The update is anticipated to be complete by July 2021. Draft copies of the document are available.

3. Street Standards – Presented by Public Works Director Jay Harris
   Public Works Director Harris provided an overview of the following City of Shelton Street Standards:

   - 2017 City of Shelton Comprehensive Plan Section IV Transportation Element
   - Shelton Municipal Code Title 12 Streets and Sidewalks
   - 2018 International Fire Code
   - 2019 State Department of Ecology Storm Water Management Manual for Western Washington
   - 2019 Shelton Design and Construction Standards

4. 2019 Accountability & Financial Audit – Presented by Finance Manager Teri Schnitzer
   The Washington State Auditor's Office (SAO) concluded their audit process. The audit was clean with no findings or management letters. SAO recommended the following for improvements:

   1. City Credit Cards – four credit card disbursements were not itemized.
   2. Payroll – a miscellaneous code was used without proper supportive documentation.
   3. Procurement – a link to the Labor and Industries website should be included for prevailing wages to provide additional information.
   4. Capital Assets – an improved tracking mechanism should be implemented.

GENERAL PUBLIC COMMENT

No public comment

BUSINESS AGENDA

1. Workforce Housing Development Project – Presented by City Manager Jeff Niten
   City Manager Niten reported there is currently no activity scheduled on the development agreement. The agenda item is to allow for on-going discussion from the public on the proposed project.

   City Manager Niten provided an update on the following:

   - Developer Presentation – February 2, 2021
   - Proposed project overview
   - The Growth Management Act
   - The Workforce Housing Summit
   - The Workforce Housing Coalition
   - Proposed project timeline
   - Public involvement and comment opportunities
   - The application and approval process
   - Legislative steps

City Clerk Nault reported there is a person waiting to make a public comment.

Councilmember Schmit called a point of order. Mayor Dorcy requested Councilmember Schmit state his point. Councilmember Schmit stated at this time City Council is making comment or asking questions of City Manager Niten and not taking general public comments. Mayor Dorcy stated the point was well taken and asked Councilmember Schmit to continue.

Discussion followed.

PUBLIC COMMENT

Trish McCoy
David Mortensen
Dean McCoy
Mike Fox
Pam Stephens
Cindy Mortensen
Barb Johnson (via email to City Manager Niten)
Gary Miner

At 7:57 p.m., a motion was made by Councilmember Onisko and seconded by Councilmember Schmit to extend the City Council meeting by an additional hour. Passed.

City Clerk Nault reported there is a general comment request.

Councilmember Schmit called a point of order. Mayor Dorcy requested Councilmember Schmit state his point. Councilmember Schmit stated there is another section for public comment to occur under the general public comment section of the agenda. Mayor Dorcy stated the point was well taken.

City Clerk Nault reported another public comment has been requested and asked that anyone with further comments reach out to City Manager Niten by either email or telephone**.**

Mayor Dorcy recessed from the regular meeting to open a public hearing.

2. Public Hearing – Ordinance No. 1964-0121 2020 Supplemental Budget – Presented by Finance Director Aaron BeMiller
   Finance Director BeMiller reported the supplemental Ordinance would increase the expenditure authority of two funds, Bond and Sewer, as necessary to record the payoff of old debt from the October 2020 refunding. No public testimony.

City Clerk Nault provided the first reading of Ordinance No. 1964-0121.

A motion was made by Deputy Mayor Peterson and seconded by Councilmember Fiess to move this item to the February 2, 2021 action agenda. Passed.

Mayor Dorcy closed the public hearing and resumed the regular meeting.

3. Resolution No. 1183-1120 On-Call Qualified Pool List Contracts – Presented by Public Works Director Jay Harris
   Public Works Director Harris reported due to the lengthy process to acquire architecture and engineering services, staff developed a qualified pool of consultants for twelve different categories of work. Staff solicited proposals from consulting firms interested in providing on-call services and eighteen firms' submitted proposals. No public comment.

A motion was made by Deputy Mayor Peterson and seconded by Councilmember Onisko to move this item to the February 2, 2021 action agenda. Passed.

ACTION AGENDA

1. Eagle Point Park Master Plan – Presented by Community Development Director Mark Ziegler
   Community Development Director Ziegler provided an overview of the City's 2016 acquisition of the Eagle Point Park property. The development of a master plan of the site to vet uses and community input is necessary. A request for qualifications was published on September 16, 2020. Ten firms responded with consultant Robert W. Droll having the highest score. Staff is recommending City Council approve a contract with Robert W. Droll for the master plan design of Eagle Point Park. No public comment.

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

2. Ordinance No. 1959-1120 Franchise Agreement Mason County – Presented by Public Works Director Jay Harris
   Public Works Director Harris reported the previous Franchise Agreement was executed in 2007 and expired in 2017. The new Agreement provides an initial ten-year term and will automatically renew for periods of five years, unless cancelled by either party. No public comment.

City Clerk Nault provided the second reading of Ordinance No. 1959-1120.

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

3. Ordinance No. 1960-1220 Amending Shelton Municipal Code Chapter 3.52 – Presented by Finance Director Aaron BeMiller
   Finance Director BeMiller reported the Ordinance would change the B&O Tax exemption for non-profit organizations who are exempt from federal income tax. The Ordinance would change the current exemption to all non-profit organizations as exempt and would be made retroactive to January 1, 2020. No public comment.

City Clerk Nault provided the second reading of Ordinance No. 1960-1220.

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

4. Resolution No. 1184-1120 Master Fee Schedule Update – Presented by Finance Director Aaron BeMiller
   Finance Director BeMiller reported the Resolution represents updates the city annually makes to fees to incorporate changes in the cost to provide services and eliminate fees for services that are no longer relevant. No public comment.

City Clerk Nault provided the reading of Resolution No.1184-1120.

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

A motion was made by Deputy Mayor Peterson and seconded by Councilmember Onisko to extend the City Council meeting until 9:10 p.m. Passed.

5. Contracts for Supplemental Building Code Services – Presented by Community Development Director Mark Ziegler

   Community Development Director Ziegler reported on October 16, 2020 a request for statements of qualifications was made for consultants to provide supplemental building code services. Staff reviewed the qualifications of the consultants and is recommending execution of contracts with Clarity Consulting Engineers and Code Pros, LLC. No public comment.

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

6. City Policy Update – Presented by City Manager Jeff Niten
   City Manager Niten reported the policy update does not include a few department policies for example, administrative services personnel policies. City Council's deliberation policy relating to the three-touch rule in the policy packet is not the updated version and was included by error. There are two new policies the Team Philosophy and Core Ethics policies. No public comment.

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

ADMINISTRATIVE REPORT

City Manager Report – Presented by City Manager Jeff Niten

- Civic Center operations are under the current Safe Start policy initiated by Governor Inslee. A majority of staff continues to work remotely, but is available to the public as needed, and there is always staff available at the Civic Center. This will continue until the Northwest Region achieves the metrics laid out by Governor Inslee.
- A plan for community and stakeholder involvement is in progress for the proposed housing development project.
- The state Building Code Council extended the timeline for cities and counties to adopt the new state Building Code to July 1. Governor Inslee has overridden the extension. On February 16, there will be a presentation and public hearing. An adoption date will be set for March 2, 2021.
- Looking Ahead:
  - Workforce Housing project
  - FCS Stormwater presentation
  - Department of Ecology Stormwater Manual
  - Civic Center Rotating Art Gallery
  - Memorandum of Understanding for the City's Skate Park
  - On-Call Qualified Pool List
  - 2020 Supplemental Budget Ordinance

ANNOUNCEMENT OF NEXT MEETING

February 2, 2021 at 6:00 p.m.

ADJOURN

Mayor Dorcy adjourned the meeting at 9:03.

_____ _____

Mayor Kevin Dorcy City Clerk Donna Nault

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item E1)

Touch Date: 03/16/2021
Brief Date: 04/06/2021
Action Date: 04/20/2021

Department: Community Development

Presented By: Mark Ziegler, Director

APPROVED FOR COUNCIL PACKET:

ROUTE TO:		**REVIEWED:**
☐	Dept. Head	_____
☐	Finance Director	_____
☒	Attorney	_____
☒	City Clerk	_____
☒	City Manager	_____

PROGRAM/PROJECT TITLE:
Park Property Acquisitions

ATTACHMENTS:
Deeds & Covenants
Maps & Photos

Action Requested:

☐	Ordinance
☐	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

The City has been working with Capitol Land Trust (CLT) and Manke Timber Co. 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 ultimately meet several priorities in the Parks, Recreation, Open Space and Trails (PROST) Plan, including development of urban trails, development of nature trails, preserving open space and habitat, and meeting an underserved neighborhood park service area.

The Angle property, comprised of 14.08 acres north of Bayview Avenue, currently has opportunistic trails starting in the residential neighborhood and running down to the creek, where local residents swim, fish and enjoy the forested shorelines of the creek.

CLT is proposing to donate this property to the City of Shelton for the purposes of creating a park that allows for passive recreation including pedestrian trail and nature viewing. CLT would also reserve the right to place signage, or develop signage jointly with the City, that recognizes CLT's involvement in creating the park and interpretive and educational information recognizing the importance of habitat preservation and water quality protection

The Manke property, comprised of 38.22 acres at the top of Turner Avenue, has approximately 10 acres logged on the upper plateau. The remaining property is wooded with mixed mature vegetation. Opportunistic trails exist and connect to the Angle property and Goldsborough Creek, providing for significant passive recreation opportunities. The proposed covenant allows for the enhancement of the passive recreation opportunities and the development of an approximately 2 acre neighborhood park to include a children's play structure, restrooms, parking, picnic facilities and an open grass play area that would address a neighborhood deficiency.

ANALYSIS/OPTIONS/ALTERNATIVES:

On September 17, 2019 the Council decided to not take action on the Angle property acquisition until the Manke property was included for consideration as well.

BUDGET/FISCAL INFORMATION:

The Angle property is a donation; the Manke property is a ten dollar purchase price property. Development of the properties will be included in future capital improvement plans.

PUBLIC INFORMATION REQUIREMENTS:

The acquisitions were unanimously recommended for Council consideration by the Parks and Recreation Citizens Advisory Committee.

STAFF RECOMMENDATION/MOTION:

"I move to forward the approval of the Manke and Angle property acquisitions to the Action Agenda of the April 20 City Council meeting for further consideration."

AFTER RECORDING RETURN TO:

CAPITOL LAND TRUST
4405 7TH Avenue SE, Suite 306
Lacey, WA 98503

DECLARATION OF COVENANT

Grantor: CAPITOL LAND TRUST, a Washington non-profit corporation

Grantee: CITY OF SHELTON, a municipality

Abbreviated Legal: Ptn SW 1/4 NW 1/4 19-20-3W

Additional Legal: Page 12

Assessor's Property Tax Parcel Number: 32019-23-00000

The Capitol Land Trust, a Washington non-profit corporation ("Declarant"), and the City of Shelton, a municipality ("Shelton") enter into this Declaration of Covenants ("Declaration") on _____, 2019, and agree as follows:

RECITALS

A. Declarant is the sole owner in fee simple of the real property located in Mason County, Washington, legally described on Exhibit A ("Property").

B. The Property possesses natural, open space, and ecological values that are of great

importance to Declarant and Shelton including a) wildlife habitat for a variety of birds, amphibians and mammals; b) a buffer between the residential neighborhood and Goldsborough Creek; c) creek flow maintenance and regulation provided by a undeveloped, forested uplands; and d) the prevention of pollution in the form of runoff, lawn chemicals, and septic effluent. These values are referred to herein as the "Conservation Values" of the Property.

C. Declarant has agreed to convey the Property to Shelton by Quit Claim Deed if Shelton accepts the Property subject to this Declaration which requires Shelton and Shelton's heirs, successors and assigns to conserve the Property in perpetuity for conservation and limited outdoor passive recreational use by, or education of, the general public, in order to preserve habitat functions of the Property including the Conservation Values described in Section B above. Shelton is willing to accept the Property with these restrictions.

D. Declarant is a 501(c)(3) nonprofit organization (Tax ID #91-1413484) with a principal place of business address of 4405 7th Avenue SE, Suite 306, Lacey, WA 98503. Declarant's mission is to promote and implement collaborative and strategic conservation of southwest Washington's essential natural areas and working lands. Declarant was awarded accreditation by the Land Trust Accreditation Commission for meeting national quality standards established by the land trust community. As part of the agreement between Shelton and Declarant regarding the conveyance of the Property, Declarant will reserve certain rights that are described in this Declaration, including, but not limited to, the right to enforce the restrictions contained in this Declaration which will be binding upon Shelton and subsequent property owners.

E. The Goldsborough Creek watershed is one of Declarant's priority watershed areas. Declarant has already protected over 10 miles of shoreline along Goldsborough Creek and its tributaries, along with key associated wetlands, totaling 325 acres of strategic habitat. Additionally, conservation partners such as the South Puget Sound Salmon Enhancement Group, the Squaxin Island Tribe and Mason Conservation District have completed multiple projects to a) address fish passage barriers on important tributaries, b) provide in-stream habitat through large wood placement, and c) re-establish riparian vegetation to reduce water temperature. Well over $15 million dollars in federal, state, local and private conservation funding has been spent in the Goldsborough watershed.

NOW, THEREFORE, in consideration of the foregoing and the covenants, terms, conditions and restrictions contained herein, Declarant, does hereby establish a real property covenant that touches and concerns the Property and runs with the land as follows:

1. Declaration of Real Property Covenant

Declarant voluntarily establishes this Declaration in perpetuity over the Property on the terms and conditions set forth herein for the purpose of conserving the Conservation Values of the Property.

This Declaration shall run with the land and shall be binding upon Shelton and their successors and assigns, and upon any person acquiring the Property, or any portion thereof, or any interest therein, including a leasehold interest, whether by operation of law or otherwise (hereinafter collectively referred to as the "Property Owner"). If a Property Owner sells or transfers all or any portion of its interest, the new owner of the Property or any portion thereof (including, without limitation, any owner who acquires its interest by foreclosure, trustee's sale or otherwise) shall be subject to applicable covenants and requirements under the Deed.

This Declaration may not be removed from the Property or altered unless specific approval has been granted in writing by the Declarant.

2. Purpose

The purpose of this Declaration is to ensure that the Property will be retained in perpetuity in a natural, open space and scenic condition, with limited passive recreational use, and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property. Declarant intends that this Declaration will confine the use of the Property to such activities as are consistent with the Conservation Values and that this Declaration shall run with the land.

3. Permitted Uses and Activities

(a) *Public Access and Passive Recreation*. Property Owners may permit public access to the Property and the Property may be used for limited passive recreational purposes. For purposes of this Declaration, "passive recreational purposes" shall be limited to the use and maintenance of existing trails for hiking and walking. This provision is not intended to prevent reasonable access or further use restrictions that may be reasonably necessary for the safe and effective management of the Property.

(b) *Fence/Buffer.* A fencing and/or vegetative buffer (native plants only) may be installed and maintained around all or a portion of the Property unless the fencing interferes with the Conservation Values.

(c) *Other.* Such activities may be conducted as are necessary to maintain and monitor the Conservation Values and protect public health, property improvements, or human safety, or which are actively required by and subject to compulsion of any governmental agency with authority to require such activity.

4. Prohibited Uses

Any activity on or use of the Property inconsistent with the Conservation Values or other purpose of this Declaration is prohibited, with the exception of those permitted uses and activities listed in Section 3 above. Without limiting the generality of the foregoing, the following activities and uses

are expressly prohibited, except as otherwise expressly permitted herein:

(a) *Construction and Improvements.* Excavation or placement or construction of any buildings, structures, permanent or semi-permanent fixtures or structures, or any other improvements of any kind, including, without limitation, utilities, septic systems, communication lines, communication towers, storage tanks, and pipelines.

(b) *Paving and Road and Trail Construction.* The paving or covering of any portion of the Property with concrete, asphalt, gravel, crushed rock, wood shavings or any other paving or surfacing material or the construction of a road or the construction of a trail, without prior written consent of the designated representatives of Declarant.

(c) *Commercial Development.* Any commercial or industrial use or activity on the Property, including, but not limited to, commercial recreational activities involving active recreation.

(d) *Agricultural Activities.* Any domestic animal grazing or agricultural activities of any kind. The application of biocides except when necessary for the eradication of invasive non-native plant species, such application is by the narrowest spectrum, least persistent material appropriate for the target species, and only with the prior written consent of the designated representatives of Declarant.

(e) *Introduced and Invasive Vegetation*. The planting or introduction of non-native or invasive species of plants.

(f) *Waste Disposal.* The disposal, storage, or release of yard waste, hazardous substances, rubbish, garbage, debris, unregistered vehicles, abandoned equipment, parts thereof, or other unsightly or offensive waste or material on the Property. The term "release" shall mean any release, generation, treatment disposal, storage, dumping, burying, abandonment, or migration from off-site. The term "hazardous substances" as used in this Declaration shall mean any substances, materials, or wastes that are hazardous, toxic, dangerous, harmful or are designed as, or contain components that are, or are designated as, hazardous, toxic, dangerous, or harmful and/or which are subject to regulation as hazardous, toxic, dangerous or harmful or as a pollutant by any federal, state, or local law, regulation, statute, or ordinance, including, but not limited to, petroleum or any petroleum product.

(g) *Active Recreation.* Conducting or allowing activities, such as golf courses, ball fields, motocross, equestrian, team sports, campgrounds, or any other activity involving individuals or the public or private clubs or associations engaging in organized active recreation.

(h) *Hunting*. Conducting or allowing hunting activities, including construction of blinds, camping areas, access trails, and any other hunting related activities.

(i) *Signs.* The placement of commercial signs, billboards, or other commercial advertising material on the Property, except in connection with the sale or lease of the Property or notices that are consistent with the purposes of the real property covenant, such as informational, interpretive, wayfinding, and/or regulatory signs or kiosks.

(j) *Mineral and Aggregate Development.* The exploration for, or development and extraction of, any minerals, aggregate, or hydrocarbons.

(j) *Vehicles.* The operation of motorized vehicles except as part of any habitat restoration or general maintenance activity, emergency vehicles, or as outlined and defined in Section 3.

(k) *Encroachment.* Encroachment by neighboring landowners or other third-party individuals, including homeless encampments.

5. Responsibilities of Property Owner Not Affected.

Other than as specified herein, this Declaration is not intended to impose any legal or other responsibility on the Declarant, or in any way to affect any existing obligation of the owner of the Property. This shall apply to:

(a) *Taxes*. Property Owner shall continue to be solely responsible for payment of all taxes and assessments, if any, levied against the Property.

(b) *Upkeep and Maintenance, Costs, Legal Requirements, and Liabilities.* Property Owner retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property subject to the terms of this real property covenant. Property Owner remains solely responsible for obtaining any applicable governmental permits and approvals for any construction or other activity or use permitted by this real property covenant and conducted by its agents or employees.

(c) *Remediation.* If, at any time, there occurs, or has occurred, a release in, on, or about the Property of any hazardous substances, Property Owner is to take all steps necessary to assure its containment and remediation, including any cleanup that may be required. Should Property Owner become aware of the release of any hazardous substances on the Property, Property Owner shall make best efforts to inform the designated representatives of Declarant of such release as soon as possible.

(d) *Control.* Nothing in this Declaration shall be construed as giving Declarant any right or ability to exercise physical or managerial control over the day-to-day operations of the Property, or any of Property Owner's activities on the Property, or otherwise to become an operator with respect to the Property within the meaning of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), or the Model Toxics Control Act, as amended ("MTCA").

6. Declarant's Right to Restore the Property

As more fully discussed in Section 8 below, in the event that any of the Conservation Values of the Property are impaired, Declarant shall have the right, but not the obligation, to restore all or portions of the Property.

7. Access

No right of access by the general public to any portion of the Property is created or restricted by this real property covenant.

8. Enforcement

To accomplish the purpose of this Declaration and to prevent and correct violations of the terms of this Declaration, if any, the following rights are vested in and may be exercised by the Declarant, its successors and assigns:

(a) *Conservation Values*. To preserve and protect the Conservation Values of the Property.

(b) *Right of Entry*. To enter upon the Property at reasonable times in order to monitor Property Owner's compliance with and otherwise enforce the terms of this Declaration in accordance with this Section 8.

(c) *Signage.* To place one (1) informational sign, consistent with Section 4(h) above, on the Property after review by designated representative of Property Owner.

(d) *Restoration*. To conduct, with reasonable prior notice to Property Owner, survey, site preparation, removal of invasive non-native vegetation, installation of native plants, and other activities associated with the restoration of the Conservation Values. Nothing herein shall be deemed to imply any obligation to perform such restoration activities.

(e) *Unauthorized Uses*. To prevent any activity on or use of the Property that is inconsistent with the purpose of this Declaration and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use, pursuant to the remedies set forth in this Section 8.

(f) *Notice of Failure*. If Declarant determines that Property Owner is in violation of the terms of this Declaration or that a violation is threatened, Declarant shall give written notice to Property Owner of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with

the purpose of this Declaration, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by the Declarant.

(g) *Property Owner's Failure to Respond*. In addition to the rights granted in this Section 8, including the right of entry, Declarant may bring a legal action as provided in Section 8(h) below if the Property Owner fails to cure the violation within thirty (30) days after receipt of notice thereof from the Declarant; fails to begin curing such violation within the thirty (30) day period under circumstances where the violation cannot reasonably be cured within the thirty (30) day period; or fails to continue diligently to cure such violation until finally cured.

(h) *The Declarant's Action*. Declarant may bring action at law or in equity in a court of competent jurisdiction to enforce the terms of this Declaration, to enjoin the violation, *ex parte* as necessary and as allowed under the applicable civil rules, by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Declaration or injury to any of the Conservation Values protected by this Declaration, including damages for the loss of the Conservation Values; and to require the restoration of the Property to the condition that existed prior to any such injury. Without limiting Property Owner's liability therefore, Declarant, in its sole and absolute discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Property. All such actions for injunctive relief may be taken without Declarant being required to post bond or provide other security.

(i) *Immediate Action Required*. If Declarant, in its sole and absolute discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, it may pursue remedies under this Section 8 without prior notice to Property Owner or without waiting for the period provided for cure to expire.

(j) *Nature of Remedy*. The rights under this Section 8 apply equally in the event of either actual or threatened violations of the terms of this Declaration. Property Owner agrees that the remedies at law for any violation of the terms of this Declaration are inadequate and Declarant shall be entitled to the injunctive relief described in this Section 8 both prohibitive and mandatory, in addition to such other relief to which Declarant may be entitled, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. The remedies described in this Section 8 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

(k) *Costs of Enforcement.* Provided Declarant first provides Property Owner with a Notice of Failure and Property Owner fails to respond, all reasonable costs incurred by Declarant in enforcing the terms of this Declaration against Property Owner, including, without limitation, costs and expenses of suit and reasonable attorneys' fees and reasonable consultant's fees, and any costs of restoration necessitated by Property Owner's violation of the terms of this Declaration shall be borne by Property Owner. The substantially prevailing party in a judicial enforcement action regarding this Declaration shall be entitled to reimbursement of all reasonably incurred attorneys' fees and litigation

expenses.

(l) *Declarant's Discretion*. Any forbearance by Declarant to exercise rights under this Declaration in the event of any violation of any terms of this Declaration shall not be deemed or construed to be a waiver of such term or of any rights under this Declaration. No delay or omission by the Declarant in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

(m) *Acts Beyond Property Owner's Control*. Nothing contained in this Declaration shall be construed to entitle Declarant to bring any action against Property Owner to abate, correct, or restore any condition on the Property or to recover damages for any injury to or change in the Property resulting from causes beyond Property Owner's control, including, without limitation, fire, flood, storm, and earth movement, nor shall Property Owner be required to take steps to abate or mitigate injury to the Property resulting from such causes.

9. Alternate Dispute Resolution

If a dispute arises between Property Owner and Declarant concerning the consistency of any proposed use or activity with this real property covenant, the parties shall attempt to resolve the dispute through informal discussion. The parties may also agree to refer the dispute to mediation and shall select a single mediator to hear the matter. Unless, otherwise agreed, each party shall bear its own costs, including attorneys' fees, and an equal share of the fees and expenses of the mediator.

10. Notice

(a) *Notice.* Whenever notice is required under this Declaration, the party required to give notice ("Notifying Party") shall give written notice a minimum of sixty (60) days prior to the date the Notifying Party intends to undertake the use or activity in question. The notice shall describe the nature, scope, design, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit the other party to make an informed judgment as to its consistency with the purpose and terms of this Declaration.

(b) *Evaluation of Proposed Activities.* The purpose of requiring the Notifying Party to notify the other party prior to undertaking certain permitted uses and activities is to afford the other party an opportunity to ensure that the use or activity in question is designed and carried out in a manner consistent with the purpose and terms of this Declaration.

11. Notice of Transfer of Property by Declarant and Successor and Assigns

Anytime the Property itself, or any interest in it is transferred, or a legal claim is established by Property Owner to a third party, Property Owner, its successors and assigns, shall notify the Declarant

in writing at least 60 days in advance of such action and the document of conveyance, transfer or establishment shall expressly refer to this real property covenant.

12. Economic Value

The fact that the Property may become greatly more economically valuable if it were used in a manner that is either expressly prohibited by this Declaration or inconsistent with the purpose of this Declaration, or that neighboring properties may in the future be put entirely to uses that would not be permitted hereunder, has been considered by the Declarant in granting this real property covenant. It is the intent of Declarant that any such change in the economic value of the Property from other use shall not be assumed to be circumstances justifying the termination or extinguishment of this Declaration pursuant to this section.

13. Modification

This Declaration may be amended only with the concurrence of the Declarant, provided that any such amendment shall be consistent with the purpose of the Declaration and shall not affect its perpetual duration. All amendments shall be in writing, approved by the Declarant and recorded in the real property records of Mason County, Washington.

14. Interpretation

This Declaration shall be interpreted under the laws of Washington, resolving any ambiguities and questions of the validity of specific provisions so as to give maximum effect to its conservation purposes.

15. Perpetual Duration

This Declaration shall be a binding servitude running with the land in perpetuity.

16. Notices

Any notices required by this Declaration shall be in writing and shall be personally delivered or sent by first class mail to the other party, at the following addresses, unless notifying party has been notified of a change of address.

To City of Shelton:

Community Development Director
City of Shelton
525 West Cota Street Shelton, WA 98584
Email: mark.ziegler@sheltonwa.gov

Phone: 360-432-5194

To Declarant:

Conservation Director
Capitol Land Trust
4405 7th Avenue SE, Ste 306
Lacey, WA 98503
Email: info@capitollandtrust.org
Phone: 360-943-3012

17. Severability

If any provision of this Declaration is found to be invalid, illegal or unenforceable, that finding shall not affect the validity, legality or enforceability of the remaining provisions.

18. Entire Agreement

This instrument sets forth the entire agreement of the parties with respect to the terms of this Declaration and supersedes all prior discussions, negotiations, understandings, or agreements relating to the terms of this Agreement, all of which merge herein.

IN WITNESS WHEREOF, the Declarant has set its hands on the date first written above.

Declarant:

By: _____

Name: _____

Title: _____

Date: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

I certify that I know or have satisfactory evidence that _____is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged it as the _____ of Capitol Land Trust to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

_____
Notary Public in and for the state of Washington.
Residing at: _____
My Commission Expires: _____

EXHIBIT A

Legal Description

THAT PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 20 NORTH, RANGE 3 WEST, W.M., IN MASON COUNTY, WASHINGTON, LYING NORTH OF BAYVIEW STREET AND BAYVIEW EXTENSION, AS APPEARS IN THE PLATS OF ANGLESIDE ADDITION NO. 2, AS RECORDED IN VOLUME 2 OF PLATS, PAGE 40, RECORDS OF MASON COUNTY, WASHINGTON AND ANGLESIDE HEIGHTS, AS RECORDED IN VOLUME 4 OF PLATS, PAGES 79 AND 80, RECORDS OF MASON COUNTY, WASHINGTON. EXCEPTING ALL OF BLOCK 4, OF SAID PLAT OF ANGLESIDE HEIGHTS AND EXCEPTING THE FOLLOWING TRACTS:

THAT PART OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 20 NORTH, RANGE 3 WEST, W.M., IN MASON COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF BAYVIEW AVENUE AS SHOWN ON THE PLAT OF ANGLESIDE ADDITION NO. 2 TO SHELTON AS RECORDED IN VOLUME 2 OF PLATS, PAGE 40, NORTH 1°20' EAST, 60 FEET, AND SOUTH 88°40' EAST 60 FEET FROM THE NORTHWEST CORNER OF BLOCK 4 IN SAID PLAT; RUNNING THENCE NORTH 1°20' EAST 100 FEET; THENCE SOUTH 88°40' EAST 65 FEET; THENCE SOUTH 1°20' WEST 100 FEET TO THE NORTH LINE OF SAID BAYVIEW AVENUE; THENCE NORTH 88°40' WEST ALONG SAID NORTH LINE OF BAYVIEW AVENUE 65 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION.

AND

THAT PART OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 20 NORTH, RANGE 3 WEST, W.M., IN MASON COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF BAYVIEW AVENUE NORTH 1°20' EAST 60 FEET FROM THE NORTHEAST CORNER OF BLOCK 4 OF ANGLESIDE ADDITION NO. 2 TO SHELTON AS RECORDED IN VOLUME 2 OF PLATS, PAGE 40; RUNNING THENCE NORTH 1°20' EAST 100 FEET; THENCE NORTH 88°40' WEST 120 FEET; THENCE SOUTH 1°20' WEST 100 FEET TO SAID NORTH LINE OF BAYVIEW AVENUE; THENCE SOUTH 88°40' EAST ALONG SAID NORTH LINE OF BAYVIEW AVENUE 120 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION.

EXCEPTING THEREFROM THE WESTERLY 5 FEET AND A TRACT OF LAND IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 20 NORTH, RANGE 3 WEST, W.M., IN MASON COUNTY, WASHINGTON, PARTICULARLY DESCRIBED AS FOLLOWS:

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ALSO EXCEPTING 12TH STREET AND BUENA VISTA AVENUE.

AFTER RECORDING RETURN TO:

CAPITOL LAND TRUST
4405 7TH Avenue SE, Suite 306
Lacey, WA 98503

QUIT CLAIM DEED

Grantor: CAPITOL LAND TRUST, a Washington non-profit corporation

Grantee: CITY OF SHELTON, a municipality

Abbreviated Legal: Ptn SW 1/4 NW 1/4 19-20-3W

Additional Legal: Page 3

Assessor's Property Tax Parcel Number: 32019-23-00000

GRANTOR, CAPITOL LAND TRUST, for valuable consideration, receipt of which is acknowledged, conveys and quit claims to the CITY OF SHELTON, a municipality, the real property, situated in the County of Mason, State of Washington, together with all after acquired title of the Grantor therein as legally described in Exhibit A ("Property") subject to easements, covenants, conditions, restrictions and reservations of record including, but not limited to, the Declaration of Land Use Restriction and Real Property Covenant dated of even date herewith and recorded under Mason County Auditor's File No. _____.

DATED this _____ day of _____, 2021.

Capitol Land Trust

_____

By: _____

Its: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

I certify that I know or have satisfactory evidence that _____is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged it as the _____ of Capitol Land Trust to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

_____
Notary Public in and for the state of Washington.
Residing at: _____
My Commission Expires: _____

EXHIBIT A

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EXCEPTING THEREFROM THE WESTERLY 5 FEET.

AND

A TRACT OF LAND IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 20 NORTH, RANGE 3 WEST, W.M., IN MASON COUNTY, WASHINGTON, PARTICULARLY DESCRIBED AS FOLLOWS:

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ALSO EXCEPTING 12TH STREET AND BUENA VISTA AVENUE.

IN MASON COUNTY, WASHINGTON

DECLARATION OF LAND USE RESTRICTION
AND REAL PROPERTY COVENANT

Declarant: Manke Timber Company, Inc.
Beneficiary: The Capitol Land Trust, as an Agent for the Public.
Assessor's Tax Parcel ID: 42024 14 90000 and 42024 41 00000

This Declaration of Land Use Restriction and Real Property Covenant (the "real property covenant") is made this_____day of_____, 2021 by Manke Timber Company, Inc. ("Declarant"), as agent for Manke Lumber Company, Inc. for the benefit of the Capitol Land Trust, referred to herein as "the Beneficiary".

WHEREAS, the Declarant makes the following recitals:

A. Declarant is the sole owner in fee simple of the real property located in Mason County, Washington, legally described on Exhibit A (the "Property"). A map of the Property is attached to and made part of this real property covenant, as Exhibit B.

B. The Property possesses natural, open space, and ecological values that are of great importance to Declarant and the Beneficiary including a) abundant, good quality spawning habitat for coho, chum salmon, and steelhead; b) shade, food and nutrient input from vegetation overhanging Goldsborough Creek; c) creek flow maintenance and regulation provided by an undeveloped flood plain; and d) the prevention of pollution in the form of runoff, lawn chemicals, and septic effluent. These values are referred to herein as the "Conservation Values" of the Property.

C. Manke Lumber Company, Inc. ("Manke"), pursuant to the terms and conditions of the Consent Decree by and between Manke and the United States Department of Justice attached as Exhibit C and entered by the Court on January 22, 2020, has agreed to conserve the Property in perpetuity for conservation and limited outdoor passive recreational use by, or education of, the general public, and to record deed restrictions for such purpose in order to preserve habitat functions of the property including the Conservation Values described in Paragraph B, above.

D. The Beneficiary, Capitol Land Trust ("CLT"), is a 501(c)(3) nonprofit organization (Tax ID #91-1413484) with a principal place of business address of 4405 7th Avenue SE, Suite 306, Lacey, WA 98503. CLT's mission is to promote and implement collaborative and strategic conservation of southwest Washington essential natural areas and working lands. CLT was awarded accreditation by the Land Trust Accreditation Commission for meeting national quality standards established by the land trust community. The Goldsborough Creek watershed is one of CLT's priority watershed areas. CLT has already protected over 10 miles of shoreline along Goldsborough Creek and its tributaries, along with key associated wetlands, totaling 325 acres of strategic habitat. Additionally, conservation partners such as the South Puget Sound Salmon Enhancement Group, the Squaxin Island Tribe and Mason Conservation District have completed multiple projects to a) address fish passage barriers on important tributaries, b) provide in-stream habitat through large wood placement, and c) re-establish riparian vegetation to reduce water temperature. Well over $15 million dollars in federal, state, local and private conservation funding has been spent in the

Goldsborough watershed.

NOW, THEREFORE, in consideration of the above and the covenants, terms, conditions and restrictions contained herein, Declarant, does hereby establish a real property covenant that touches and concerns the Property as follows:

1. Declaration of Real Property Covenant

Declarant voluntarily establishes this real property covenant in perpetuity over the Property on the terms and conditions set forth herein exclusively for the purpose of conserving the Conservation Values of the Property.

These covenants run with the land and shall be binding upon the Declarant, its successors and assigns, and upon any person acquiring the Property, or any portion thereof, or any interest therein, including a leasehold interest, whether by operation of law or otherwise (hereinafter "Property Owner"). If the Declarant sells or transfers all or any portion of its interest, the new owner of the Property or any portion thereof (including, without limitation, any owner who acquires its interest by foreclosure, trustee's sale or otherwise) shall be subject to applicable covenants and requirements under the Deed.

These covenants may not be removed from the Property or altered unless specific approval has been granted in writing by the Capitol Land Trust and the United States Environmental Protection Agency.

2. Purpose

It is the purpose of this real property covenant to ensure that the Property will be retained in perpetuity in a natural, open space and scenic condition, with limited passive recreational use, and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property. Declarant and the Beneficiary intend that this real property covenant will confine the use of the Property to such activities as are consistent with the purpose of this real property covenant and that this real property covenant runs with the land.

3. Permitted Uses and Activities

(a) *Public Access and Passive Recreation*. Public access is permitted and the Property may be used for limited passive recreational purposes. For purposes of this real property covenant, "passive recreational purposes" shall be limited to: a) the use and maintenance of existing nature or hiking trails; b) the establishment and/or maintenance of open fields on a portion of the upper 2 acres as depicted on the diagram attached as Exhibit B; and c) the construction and maintenance of the improvements described in Section 3(b) below. This provision is not intended to prevent reasonable access or further use restrictions that may be reasonably necessary for the safe and effective management of the Property.

(b) *Allowed Improvements*. After review and written approval by Capitol Land Trust of all design plans, the following improvements may be constructed, on the southeastern edge of the Property adjacent to the street right of way: 1) a children's play structure not to exceed 6,000 square feet; 2) six

foot wide paths constructed with permeable materials to connect park amenities, except the path connecting the parking lot and the children's play structure may use a non-permeable surface; 3) a grass play area approximately one acre in size; 4) a vehicle parking lot not to exceed 8,000 square feet, which may use a non-permeable pavement provided construction complies with the stormwater requirements for parking lots set forth in the Washington State Department of Ecology's Stormwater Management Manual for Western Washington and all applicable federal, state and local regulations; 5) a restroom facility connected to city utilities not to exceed 500 square feet; 6) an information sign/kiosk; 7) two open air covered picnic shelters not to exceed 300 square feet; and 8) except as otherwise provided herein, all hard surfaces to consist of permeable materials (collectively the "allowed improvements"). The approximate location of the allowed improvements is depicted on Exhibit B.

(c) *Native Plants.* The open area depicted on Exhibit B may be cleared and re-planted with native trees or native plants. Non-native species may be planted only after receiving written permission from the designated representatives of the United States Environmental Protection Agency and Capitol Land Trust. No fertilizers, pesticides or insecticides will be used without prior written approval by designated representatives of Capitol Land Trust and the United States Environmental Protection Agency as they can lead to damaging runoff.

(d) *Fence/Buffer.* A fencing and/or vegetative buffer (native plants only) may be installed and maintained around all or a portion of the Property unless the fencing interferes with the Conservation Value, general habitat or ecological values, or any other provisions of this real property covenant.

(e) *Other.* Such activities may be conducted as are necessary to maintain and monitor the Conservation Values and protect public health, property improvements, or human safety, or which are actively required by and subject to compulsion of any governmental agency with authority to require such activity.

4. Prohibited Uses

Any activity on or use of the Property inconsistent with the purpose of this real property covenant is prohibited, with the exception of those permitted uses and activities listed in Section 3 above. Without limiting the generality of the foregoing, the following activities and uses are expressly prohibited, except as otherwise expressly permitted herein:

(a) *Construction and Improvements.* Excavation or placement or construction of any buildings, structures, permanent or semi-permanent fixtures or structures, or any other improvements of any kind, including, without limitation, utilities, septic systems, communication lines, communication towers, storage tanks and pipelines.

(b) *Paving and Road and Trail Construction.* The paving or covering of any portion of the Property with concrete, asphalt, gravel, crushed rock, wood shavings or any other paving or surfacing material or the construction of a road or the construction of a trail, without prior written consent of the designated representatives of the United States Environmental Protection Agency and Capitol Land Trust.

(c) *Commercial Development.* Any commercial or industrial use or activity on the Property,

including, but not limited to, commercial recreational activities involving active recreation.

(d) *Agricultural Activities.* Any domestic animal grazing or agricultural activities of any kind. The application of biocides except when necessary for the eradication of invasive non- native plant species, such application is by the narrowest spectrum, least persistent material appropriate for the target species, and only with the prior written consent of the designated representatives of the United States Environmental Protection Agency and Capitol Land Trust.

(e) *Introduced and Invasive Vegetation.* The planting or introduction of non-native or invasive species of plants.

(f) *Waste Disposal.* The disposal, storage, or release of yard waste, hazardous substances, rubbish, garbage, debris, unregistered vehicles, abandoned equipment, parts thereof, or other unsightly or offensive waste or material on the Property. The term "release" shall mean any release, generation, treatment disposal, storage, dumping, burying, abandonment, or migration from off-site. The term "hazardous substances" as used in this real property covenant shall mean any substances, materials, or wastes that are hazardous, toxic, dangerous, harmful or are designed as, or contain components that are, or are designated as, hazardous, toxic, dangerous, or harmful and/or which are subject to regulation as hazardous, toxic, dangerous or harmful or as a pollutant by any federal, state, or local law, regulation, statute, or ordinance, including, but not limited to, petroleum or any petroleum product.

(g) *Active Recreation.* Conducting or allowing activities, such as golf courses, ball fields, motocross, equestrian, team sports, campgrounds, or any other activity involving individuals or the public or private clubs or associations engaging in organized active recreation.

(h) *Hunting*. Conducting or allowing hunting activities, including construction of blinds, camping areas, access trails, and any other hunting related activities.

(j) *Signs.* The placement of commercial signs, billboards, or other commercial advertising material on the Property, except in connection with the sale or lease of the Property or notices that are consistent with the purposes of the real property covenant, such as an informational, interpretive, wayfinding, and/or regulatory signs or kiosks.

(k) *Mineral and Aggregate Development.* The exploration for, or development and extraction of, any minerals, aggregate, or hydrocarbons.

(l) *Vehicles.* The operation of motorized vehicles except as part of any habitat restoration or general maintenance activity, emergency vehicles, or as outlined and defined in Section 3 and as depicted on Exhibit B.

(m) *Encroachment.* Encroachment by neighboring landowners or other third-party individuals.

(n) *Timber harvesting*. The harvesting of any timber for any reason other than to protect Conservation Value, general habitat or ecological values, or public safety.

5. Responsibilities of Property Owner Not Affected.

Other than as specified herein, this real property covenant is not intended to impose any legal or

other responsibility on the Beneficiary, or in any way to affect any existing obligation of the Property Owner of the Property. This shall apply to:

(a) *Taxes*. Property Owner shall continue to be solely responsible for payment of all taxes and assessments, if any, levied against the Property.

(b) *Upkeep and Maintenance, Costs, Legal Requirements, and Liabilities.* The Property Owner retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property subject to the terms of this real property covenant. Property Owner remains solely responsible for obtaining any applicable governmental permits and approvals for any construction or other activity or use permitted by this real property covenant and conducted by its agents or employees.

(c) *Remediation.* If, at any time, there occurs, or has occurred, a release in, on, or about the Property of any hazardous substances, Property Owner is to take all steps necessary to assure its containment and remediation, including any cleanup that may be required. Should Property Owner become aware of the release of any hazardous substances on the Property, Property Owner shall make best efforts to inform the designated representatives of the United States Environmental Protection Agency and Capitol Land Trust of such release as soon as possible.

(d) *Control.* Nothing in this real property covenant shall be construed as giving rise to any right or ability in the United States Environmental Protection Agency or the Capitol Land Trust to exercise physical or managerial control over the day-to-day operations of the Property, or any of Property Owner's activities on the Property, or otherwise to become an operator with respect to the Property within the meaning of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), or the Model Toxics Control Act, as amended ("MTCA").

6. Beneficiary's Right to Restore the Property

As more fully discussed in Section 8 below, in the event that any of the Conservation Values of the Property are impaired, Capitol Land Trust as Beneficiary shall have the right, but not the obligation, to restore all or portions of the Property

7. Access

No right of access by the general public to any portion of the Property is created or restricted by this real property covenant.

8. Enforcement

To accomplish the purpose of this real property covenant and to prevent and correct violations of the terms of this real property covenant, if any, the following rights are vested in and may be exercised by the Beneficiary, Capitol Land Trust, its successors and assigns:

(a) *Conservation Values*. To preserve and protect the Conservation Values and general habitat and ecological values of the Property.

(b) *Right of Entry*. To enter upon the Property at reasonable times in order to monitor Property Owner's compliance with and otherwise enforce the terms of this real property covenant in accordance with this Section 8.

(c) *Signage.* To place one (1) informational sign, consistent with Section 4(h) above, on the Property after review by designated representative of Property Owner.

(d) *Restoration*. To conduct, with reasonable prior notice to Property Owner, survey, site preparation, removal of invasive non-native vegetation, installation of native plants, and other activities associated with the restoration of the Conservation Values. Nothing herein shall be deemed to imply any obligation to perform such restoration activities.

(e) *Unauthorized Uses*. To prevent any activity on or use of the Property that is inconsistent with the purpose of this real property covenant and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use, pursuant to the remedies set forth in this Section 8.

(f) *Notice of Failure*. If the Beneficiary determines that Property Owner is in violation of the terms of this real property covenant or that a violation is threatened, the Beneficiary may give written notice to Property Owner of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the purpose of this real property covenant, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by the Beneficiary.

(g) *Property Owner's Failure to Respond*. In addition to the rights granted in this Section 8, including the right of entry, the Beneficiary may bring a legal action as provided in Section 8(g) below if the Property Owner fails to cure the violation within thirty (30) days after receipt of notice thereof from the Beneficiary; fails to begin curing such violation within the thirty (30) day period under circumstances where the violation cannot reasonably be cured within the thirty (30) day period; or fails to continue diligently to cure such violation until finally cured.

(h) *The Beneficiary's Action*. The Beneficiary may bring action at law or in equity in a court of competent jurisdiction to enforce the terms of this real property covenant, to enjoin the violation, *ex parte* as necessary and as allowed under the applicable civil rules, by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this real property covenant or injury to any of the Conservation Values protected by this real property covenant, including damages for the loss of the Conservation Values; and to require the restoration of the Property to the condition that existed prior to any such injury. Without limiting Property Owner's liability therefore, the Beneficiary, in its sole and absolute discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Property. All such actions for injunctive relief may be taken without the Beneficiary being required to post bond or provide other security.

(i) *Immediate Action Required*. If the Beneficiary, in its sole and absolute discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the

Conservation Values of the Property, it may pursue remedies under this Section 8 without prior notice to Property Owner or without waiting for the period provided for cure to expire.

(j) *Nature of Remedy*. The rights under this Section 8 apply equally in the event of either actual or threatened violations of the terms of this real property covenant. Property Owner agrees that the remedies at law for any violation of the terms of this real property covenant are inadequate and Beneficiary shall be entitled to the injunctive relief described in this Section 8 both prohibitive and mandatory, in addition to such other relief to which Beneficiary may be entitled, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. The remedies described in this Section 8 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

(k) *Costs of Enforcement.* Provided the Beneficiary first provides Property Owner with a Notice of Failure and Property Owner fails to respond, all reasonable costs incurred by the Beneficiary in enforcing the terms of this real property covenant against Property Owner, including, without limitation, costs and expenses of suit and reasonable attorney's fees and reasonable consultant's fees, and any costs of restoration necessitated by Property Owner's violation of the terms of this real property covenant shall be borne by Property Owner. The substantially prevailing party in a judicial enforcement action regarding this real property covenant shall be entitled to reimbursement of all reasonably incurred attorney's fees and litigation expenses.

(l) *The Beneficiary's Discretion*. Any forbearance by the Beneficiary to exercise rights under this real property covenant in the event of any violation of any terms of this real property covenant shall not be deemed or construed to be a waiver of such term or of any rights under this real property covenant. No delay or omission by the Beneficiary in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

(m) *Acts Beyond Property Owner's Control*. Nothing contained in this real property covenant shall be construed to entitle the Beneficiary to bring any action against Property Owner to abate, correct, or restore any condition on the Property or to recover damages for any injury to or change in the Property resulting from causes beyond Property Owner's control, including, without limitation, fire, flood, storm, and earth movement, nor shall Property Owner be required to take steps to abate or mitigate injury to the Property resulting from such causes.

9. Alternate Dispute Resolution

If a dispute arises between Property Owner and Beneficiary concerning the consistency of any proposed use or activity with this real property covenant, the parties shall attempt to resolve the dispute through informal discussion. The parties may also agree to refer the dispute to mediation and shall select a single mediator to hear the matter. Unless, otherwise agreed, each party shall bear its own costs, including attorney's fees, and an equal share of the fees and expenses of the mediator.

10. Notice

(a) *Notice.* Whenever notice is required under this real property covenant, the party required to give notice ("Notifying Party") shall give written notice a minimum of sixty (60) days prior to the date the Notifying Party intends to undertake the use or activity in question. The notice shall describe the

nature, scope, design, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit the other party to make an informed judgment as to its consistency with the purpose and terms of this real property covenant.

(b) *Evaluation of Proposed Activities.* The purpose of requiring the Notifying Party to notify the other party prior to undertaking certain permitted uses and activities is to afford the other party an opportunity to ensure that the use or activity in question is designed and carried out in a manner consistent with the purpose and terms of this real property covenant.

11. Notice of Transfer of Property by Declarant and Successor and Assigns

Anytime the Property itself, or any interest in it is transferred, or a legal claim is established by Property Owner to a third party, Property Owner, its successors and assigns, shall notify the Beneficiary in writing at least 60 days in advance of such action and the document of conveyance, transfer or establishment shall expressly refer to this real property covenant.

12. Economic Value

The fact that the Property may become greatly more economically valuable if it were used in a manner that is either expressly prohibited by this real property covenant or inconsistent with the purpose of this real property covenant, or that neighboring properties may in the future be put entirely to uses that would not be permitted hereunder, has been considered by the Declarant in granting this real property covenant. It is the intent of both Declarant and the Beneficiary that any such change in the economic value of the Property from other use shall not be assumed to be circumstances justifying the termination or extinguishment of this real property covenant pursuant to this section.

13. Modification

This real property covenant may be amended only with the concurrence of the Beneficiary and the Unites States Environmental Protection Agency, provided that any such amendment shall be consistent with the purpose of the real property covenant and shall not affect its perpetual duration. All amendments shall be in writing, approved by the Beneficiaries and recorded in the real property records of Mason County, Washington.

14. Interpretation

This real property covenant shall be interpreted under the laws of Washington, resolving any ambiguities and questions of the validity of specific provisions so as to give maximum effect to its conservation purposes.

15. Perpetual Duration

This real property covenant shall be a binding servitude running with the land in perpetuity.

16. Notices

Any notices required by this real property covenant shall be in writing and shall be personally delivered or sent by first class mail to the other party, at the following addresses, unless notifying party has been notified of a change of address.

To City of Shelton:

Community Development Director
City of Shelton
525 West Cota Street Shelton, WA 98584
Email: mark.ziegler@sheltonwa.gov
Phone: 360-432-5194

To Capitol Land Trust:

Conservation Director
Capitol Land Trust
4405 7th Avenue SE, Ste 306
Lacey, WA 98503
Email: info@capitollandtrust.org
Phone: 360-943-3012

To Environmental Protection Agency, Region 10

Enforcement and Compliance Assurance Division
1200 Sixth Avenue, ECAD-20-CO4
Seattle, Washington 98101

17. Severability

If any provision of this real property covenant is found to be invalid, illegal or unenforceable, that finding shall not affect the validity, legality or enforceability of the remaining provisions.

18. Entire Agreement

This instrument sets forth the entire agreement of the parties with respect to the terms of this Agreement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the terms of this Agreement, all of which merge herein.

IN WITNESS WHEREOF, the Declarant has set its hands on the date first written above.

Declarant:

By: _____

Name: _____

Title: _____

STATE OF WASHINGTON)
)ss
County of Mason)

On this_____day of_____, 2021, before me the undersigned, a Notary Public for the State of Washington, personally appeared _____ who stated on oath that he is_____and authorized to execute the within instrument on behalf of said company and acknowledged said instrument as the free and voluntary act of the company for the uses and purposes mentioned therein.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year hereinabove first written.

_____
Notary Public for the State of Washington
Residing at_____
My Commission expires: _____

EXHIBIT A

Legal Description

Tract D of Short Subdivision No. 355, recorded December 7, 1977, Auditor's File No. 337535, and being a portion of the Southeast Quarter of the Northeast Quarter, and of the Northeast Quarter of the Southeast Quarter, all in Section 24, Township 20 North, Range 4 West.

EXCEPTING therefrom all that portion thereof conveyed to the City of Shelton in instrument recorded June 20, 1975, and SUBJECT TO easements, reservations, rights, covenants, conditions and restrictions of record, including but not limited to the Restrictive Covenant recorded _____, 2019 under Mason County Auditor's File No. _____.

ALSO, EXCEPTING therefrom, all those portions thereof in said Northeast quarter (NE ¼) of the Southeast quarter (SE ¼), particularly described as follows:

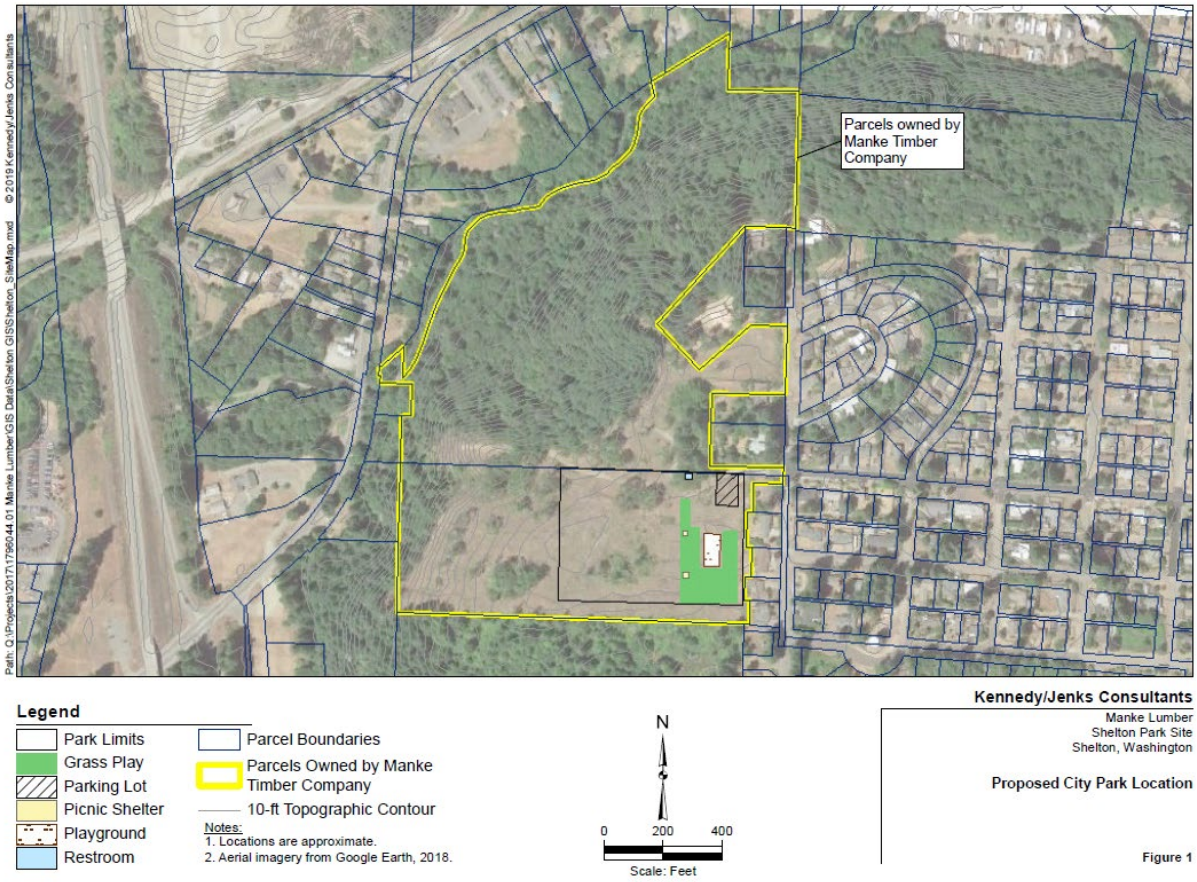
a) COMMENCING at the East quarter corner of said Section twentyfour (24); thence South 1 degree 39' East, along the East line of said Section twentyfour (24), 355 feet; thence North 88 degrees 40' West, 120 feet, to the POINT OF BEGINNING of the tract of land hereby described; thence continuing North 88 degrees 40' West, 20 feet; thence South 1 degree 39' East, 82.5 feet; thence South 88 degrees 40' East, 20 feet; thence North 1 degree 39' West, 82.5 feet, more or less, to the POINT OF BEGINNING.

b) COMMENCING at the East quarter corner of said Section twentyfour (24); thence South 1 degree 39' East, along the East line of said Section twentyfour (24), 30 feet; thence North 88 degrees 40' West, 120 feet; thence South 1 degree 39' East, 100 feet, to the POINT OF BEGINNING of the tract of land hereby described; thence South 88 degrees 40' East, 100 feet; thence South 1 degree 39' East, 20 feet; thence North 88 degrees 40' West, 100 feet; thence South 1 degree 39' East, 100 feet; thence North 88 degrees 40' West, 20 feet; thence North 1 degree 39' West, 120 feet, more or less, to a point North 88 degrees 40' West, 20 feet from the point of beginning; thence South 88 degrees 40' East, 20 feet, to the POINT OF BEGINNING. Said land being also known and described as the resulting Parcel 1 of Boundary Line Adjustment No. 16-21 recorded September 15, 2016, Auditor's File No. 2062295.

Assessor's Property Tax Parcel/Account Numbers: 42024-14-90000 and 42024-41-00000

EXHIBIT B

Property Map



AFTER RECORDING MAIL TO:

McGavick Graves, P.S.
Attn: Gregory A. Jacoby
1102 Broadway, Ste 500
Tacoma, WA 98402

Quit Claim Deed

THE GRANTOR, MANKE TIMBER COMPANY, INC. for and in consideration of TEN DOLLARS ($10.00) AND OTHER VALUABLE CONSIDERATION, conveys and quit claims to CITY OF SHELTON, the following described real estate, situated in the County of Mason, State of Washington, together with all after acquired title of the grantor therein:

Tract D of Short Subdivision No. 355, recorded December 7, 1977, Auditor's File No. 337535, and being a portion of the Southeast Quarter of the Northeast Quarter, and of the Northeast Quarter of the Southeast Quarter, all in Section 24, Township 20 North, Range 4 West.

EXCEPTING therefrom all that portion thereof conveyed to the City of Shelton in instrument recorded June 20, 1975, and SUBJECT TO easements, reservations, rights, covenants, conditions and restrictions of record, including but not limited to the Restrictive Covenant recorded _____, 2019 under Mason County Auditor's File No. _____.

ALSO, EXCEPTING therefrom, all those portions thereof in said Northeast quarter (NE ¼) of the Southeast quarter (SE ¼), particularly described as follows:

a) COMMENCING at the East quarter corner of said Section twentyfour (24); thence South 1 degree 39' East, along the East line of said Section twentyfour (24), 355 feet; thence North 88 degrees 40' West, 120 feet, to the POINT OF BEGINNING of the tract of land hereby described; thence continuing North 88 degrees 40' West, 20 feet; thence South 1 degree 39' East, 82.5 feet; thence South 88 degrees 40' East, 20 feet; thence North 1 degree 39' West, 82.5 feet, more or less, to the POINT OF BEGINNING.

b) COMMENCING at the East quarter corner of said Section twentyfour (24); thence South 1 degree 39' East, along the East line of said Section twentyfour (24), 30 feet; thence North 88 degrees 40' West, 120 feet; thence South 1 degree 39' East, 100 feet, to the POINT OF BEGINNING of the tract of land hereby described; thence South 88 degrees 40' East, 100 feet; thence South 1 degree 39' East, 20 feet; thence North 88 degrees 40' West, 100 feet; thence South 1 degree 39' East, 100 feet; thence North 88 degrees 40' West, 20 feet; thence North 1 degree 39' West, 120 feet, more or less, to a point North 88 degrees 40' West, 20 feet from the point of beginning; thence South 88 degrees 40' East, 20 feet, to the POINT OF BEGINNING. Said land being also known and described as the resulting Parcel 1 of Boundary Line Adjustment No. 16-21 recorded September 15, 2016, Auditor's File No. 2062295.

Assessor's Property Tax Parcel/Account Numbers: 42024-14-90000 and 42024-41-00000

DATED this _____ day of _____, 2021.

_____

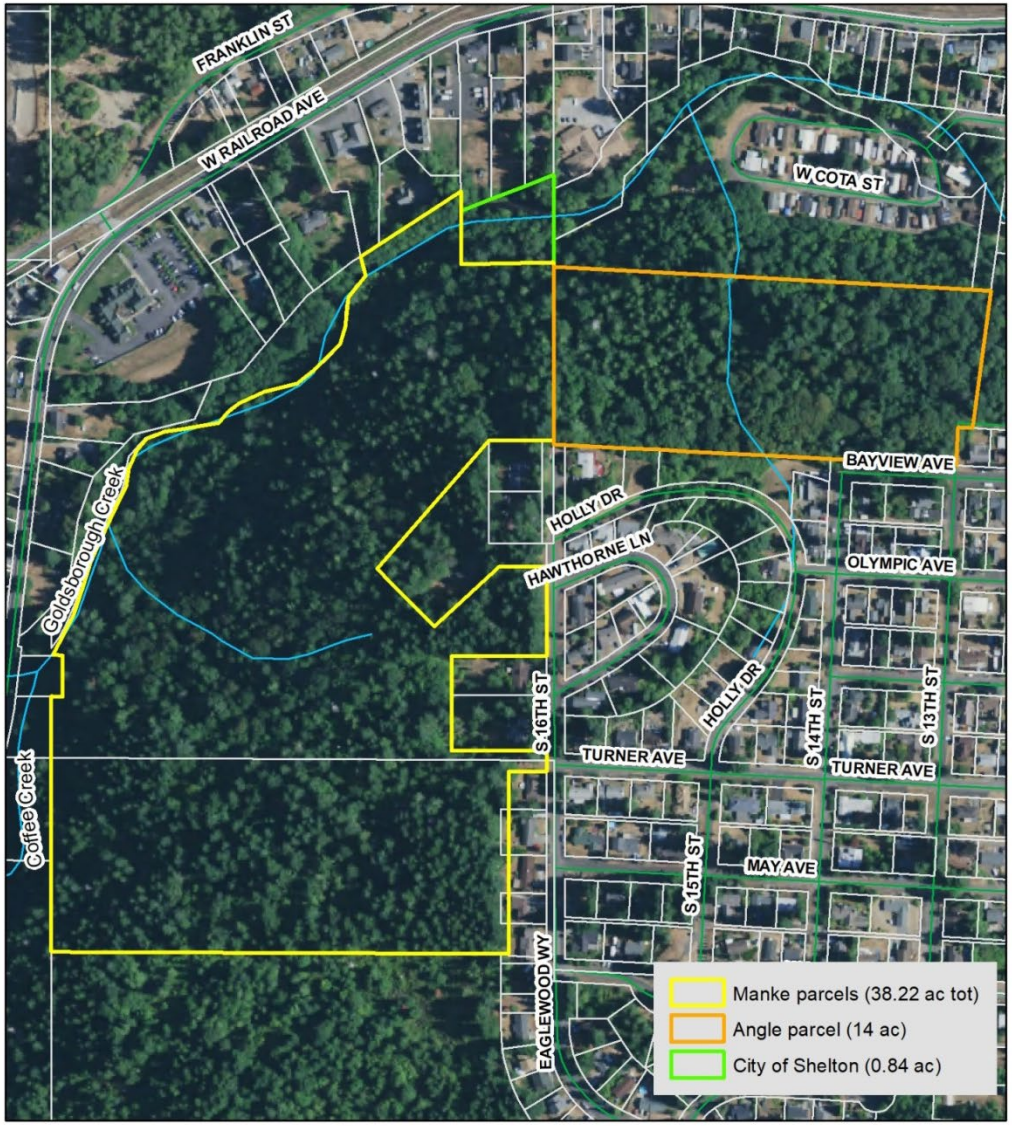
STATE OF WASHINGTON)
) ss.
COUNTY OF PIERCE / MASON)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he is authorized to execute the instrument and acknowledged it as the _____ of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in this instrument.

DATED: _____, 2021.

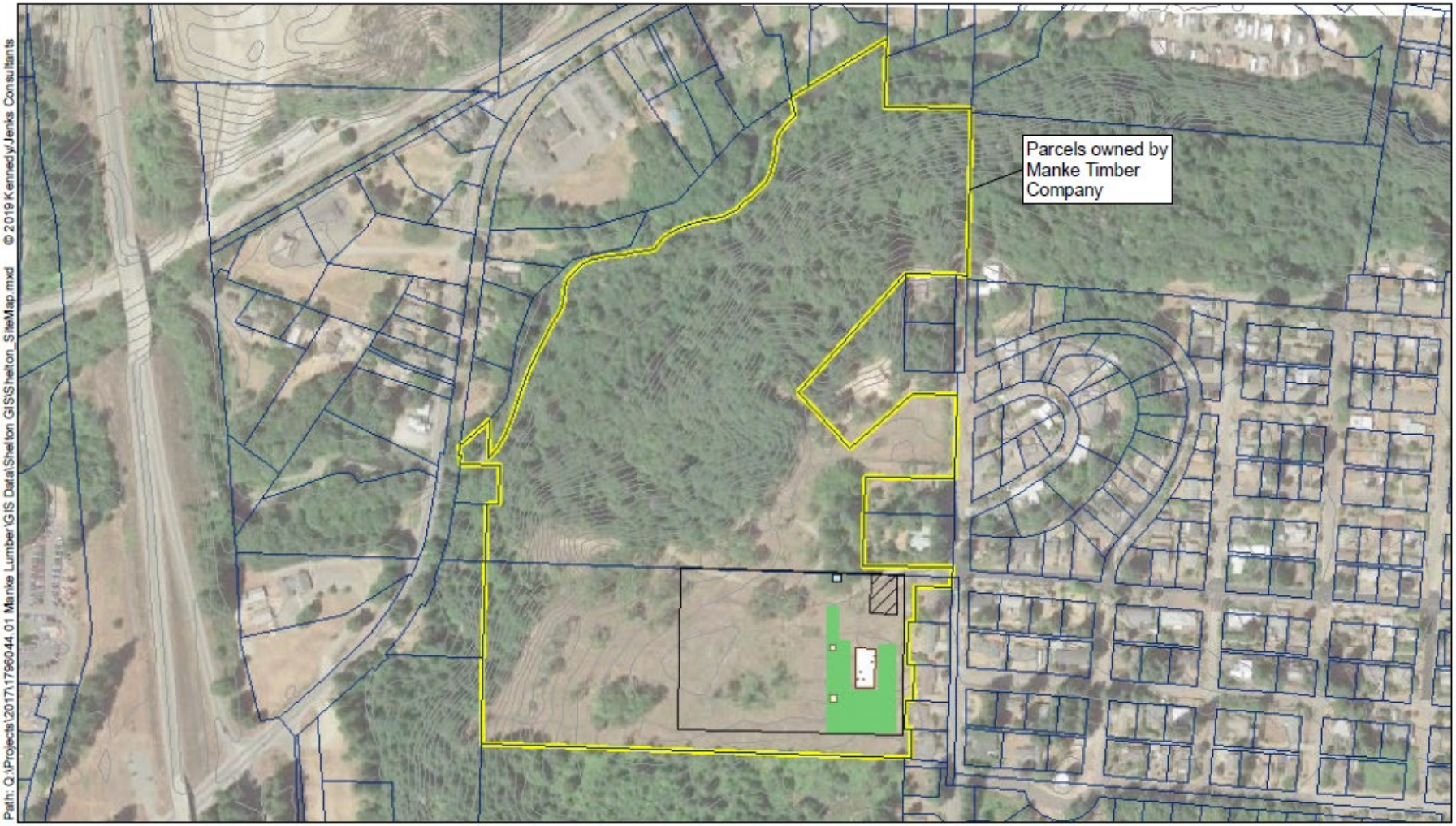
_____
Name (typed or printed): _____
NOTARY PUBLIC in and for the State off Washington
My appointment expires: _____

Manke & Angle properties
Aerial Parcel Map



Map for approximate location information only. Map created by Capitol Land Trust with information from Mason County

0 250 500 Feet



Legend

- Park Limits
- Grass Play
- Parking Lot
- Picnic Shelter
- Playground
- Restroom
- Parcel Boundaries
- Parcels Owned by Manke Timber Company
- 10-ft Topographic Contour

Notes:
1. Locations are approximate.
2. Aerial imagery from Google Earth, 2018.

N

0 200 400

Scale: Feet

Kennedy/Jenks Consultants

Manke Lumber
Shelton Park Site
Shelton, Washington

Proposed City Park Location

Figure 1

Access point from public right of way. “Eagleview Place” street stubout from Eaglewood subdivision. Property visible behind (right side of photo) truck. Photo taken looking west from Eaglewood Way/Eaglewood Drive Intersection. Well established pedestrian access exists off of the street end.

Access Point off end of Harvard Avenue. Logging road (gated) opens up across property. Approximately 50-60 feet of frontage on South 16th Street. Very good trailhead access (current and old logging roads) to existing trails along the steep slopes and down to Goldsborough Creek. Photo taken at N 16th/Turner Avenue intersection looking west.

Photo taken from South 16th Street looking west. Approximately 230 lineal feet of property frontage along South 16th Street in this location. The flat nature of this area may lend itself to a small parking area and future trailhead.

Physical access to Angle property. The property contains approximately 330 feet of frontage along Bayview Avenue.

Photo taken approximately 600 feet down the logging road access. View looking west across upper logged portion of property.

Photo taken from same location as previous slide looking south across upper logged portion of property. Note fairly flat ground (possible area for more intensive recreational/park uses).

Aerial photo above upper portion of Manke property looking west. Approximately 6 acres of logged, reasonably developable, property for active recreation uses.

Aerial photo above upper portion of Manke property looking east. Approximately 10 acres of logged, reasonably developable, property for active recreation uses.

Photo taken approximately 900 feet down the logging road access. Photo looking northwest towards top of northernmost slope (above Goldsborough Creek).

Photo taken approximately 1200 feet down the logging road access looking southwest. Logging road acts as access to well-traveled trail that switchbacks down the slope to Goldsborough Creek.

Photo taken looking west from the top of the westernmost slope on the property.

Beginning of well established trail (unlogged) off of logging access road which leads to Coffee Creek and Goldsborough Creek. The trail switchbacks down the very steep northern slopes of the site. Photo taken looking north.

Photo taken approximately 200 feet down from the logging road on the well established trail to Goldsborough Creek. Natural treefall and obvious spring which crosses the trail (in several locations). During wet weather the spring has an open channel in several locations .

Photo taken in same location as above looking up and to the east. A very multistoried canopy (typical of the northern and western slopes of the site) with copious amounts of native vegetation present. Photo is meant to be representative of much of the vegetation on the western and northern slopes. Maples are present in areas near seeps/springs while evergreen trees typify the drier portions.

Photo taken approximately 600 feet down the trail from the logging road. Notice how well established and well formed the existing trail is (little work would need to be done to establish pedestrian access). Also note the adjacent vegetation and relative lack of invasive species. This is typical of much of the western and northern slopes of the site.

Photo taken at the foot of the western/northern slope adjacent to Goldsborough Creek. The creek walls can be upwards of 20 feet tall in places. Note well established trail and vegetation.

Photo taken looking west on Goldsborough Creek just off of the well-established foot path. Oftentimes difficult to tell that one is within City limits on portions of the property due to the fairly pristine nature of the area.

Photo taken in the same location as above looking east on Goldsborough Creek. Side trail access off of footpath is evident on the right. This is a typical type of access to the creek off of the trail. The creek wall height is typical of the stream reach for the entire length of the property. Water would be bankfull (side to side on the entire channel) during winter and early spring months.

Photo taken of trail parallel to Goldsborough Creek (off-picture to the left) looking east. Note the presence of more grasses and invasive species. Likely due to more human disturbance (trail use). The trail "fork" which provides access up the northern slope and to the "Angle" property is up the trail approximately 200 feet.

Photo of Goldsborough Creek taken looking west. This area is across the creek from the “Turning Pointe” shelter (for reference). Accessed via a side trail just east of the trail fork photographed above.

Photo taken looking east in same location as above (the trim of the Turning Pointe structure is visible on the left). These areas are used fairly frequently in the summer for water access.

Photo taken on the north slope of the site looking down and to the west. The photo is representative of the state of the trail along that slope (very well defined and in very good shape, easily passable if not for the slope).

Photo taken on the northern slope of the site approximately 100 feet east of the photo above. Photo is taken looking down and to the west. Typical state of the trail(s) on the site.

Photo taken looking east on the flat/upper portion of the “Angle” property. Typical state of the trail(s) on the site.

Photo taken nearing the “top” of the “Angle” property. Almost to Bayview Avenue. Photo taken looking north towards a large flat (old logging landing?) area on the site. Perhaps a good location for more formal recreation activity? Typical state of the trails at the site.

Photo taken at the trail head of the “Angle” property at Bayview Avenue. Photo is taken looking north towards area photographed in photo above.

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item E2)

Touch Date: 03/16/2021
Brief Date: 04/06/2021
Action Date: 04/20/2021

Department: Community Development

Presented By: Mark Ziegler, Director

APPROVED FOR COUNCIL PACKET:

ROUTE TO:		**REVIEWED:**
☐	Dept. Head	_____
☐	Finance Director	_____
☒	Attorney	_____
☒	City Clerk	_____
☒	City Manager	_____

PROGRAM/PROJECT TITLE:
Shannon Park Property Acquisition

ATTACHMENTS:
Purchase and sale agreement
Parcel map
Photos

Action Requested:

☐	Ordinance
☐	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

This property is a proposed fee simple acquisition of 7.28 acres of undeveloped land adjacent 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 (PROST) Plan. The opportunity to expand Kneeland Park addresses the need for increased open space, habitat preservation, nature trails, trails for transportation from the adjacent neighborhood to downtown and relief on the impacts of the heavily used existing facilities which serves as the City's community park.

The property is heavily wooded with mature Douglas fir, big leaf maple, cedar trees and typical under story. Invasive English Ivy is also prominent on the western half and slopes. Opportunistic trails exist from years of local access provide a template for trail development. The property also provides for storm water retention.

With the addition of the recently acquired Simpson properties to the north, this acquisition provides for many recreational opportunities that will serve the City for generations.

A grant application was made to the Recreation and Conservation Office in 2020 for 50% of the acquisition cost, but funding was not received.

ANALYSIS/OPTIONS/ALTERNATIVES:

BUDGET/FISCAL INFORMATION:

The purchase price of $80,000 is less than the $95,000 appraised value. The funds are derived from the Shelton Metropolitan Park District and budgeted in the 2021 City budget.

PUBLIC INFORMATION REQUIREMENTS:

The acquisition was unanimously recommended for Council consideration by the Parks and Recreation Citizens Advisory Committee.

STAFF RECOMMENDATION/MOTION:

"I move to forward the approval of the Shannon property acquisition to the Action Agenda of the April 20 City Council meeting for further consideration."

REAL ESTATE PURCHASE AND SALE AGREEMENT

THIS REAL ESTATE PURCHASE AND SALE AGREEMENT (this "Agreement") is by and between Marian Shannon ("Seller"), and the City of Shelton, Washington, a municipal corporation of the State of Washington ("Buyer").

In consideration of the mutual covenants, conditions and promises contained herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Seller and Buyer agree as follows:

1. **Effective Date.** This Agreement is dated and effective as of _____ ("Effective Date").

2. **Property to be Purchased.** Seller agrees to sell to Buyer, and Buyer agrees to purchase from Seller, the real property and any improvements thereon, legally described in Exhibit A attached hereto and incorporated hereon, legal descriptions Tract 55 of SW ¼ NE ¼ and SE NW E of Angle Co Rd, Mason County, Washington (the "Property"). Seller agrees to sell and convey all rights, privileges, easements appurtenant to the land, including without limitation all minerals, oil, gas and other hydrocarbon substances on an under the land, all development rights, air rights, water, water rights and water stock relating to the land, and any and all easements, rights-of-way, and other appurtenances used in connection with the beneficial use and enjoyment of the land.

3. **Purchase Price.** The purchase price for the Property is Eighty Thousand dollars ($80,000) (the "Purchase Price"). The Purchase Price shall be paid to Seller in cash or immediately available funds as of the Closing.

4. **Earnest Money Deposit.** No earnest money deposit is to be paid.

5. **Title to Property.**

5.1 **Conveyance.**

5.2 **Title Commitment.** Buyer shall obtain at Buyer's cost a preliminary title insurance commitment (the "Commitment") covering the Property, issued by Mason County Title Company (the "Title Company"), together with copies of all recorded documents listed as special exceptions therein. Buyer shall have twenty (20) calendar days after receipt of the Title Report and exceptions within which to notify Seller in writing of Buyer's disapproval of any exceptions shown in the Title Report; provided, however, Buyer shall not be required to object to any monetary liens or monetary encumbrances. Subject to any monetary liens or encumbrances created by Buyer, Seller shall cause any such monetary liens or monetary encumbrances to be removed on or before the Closing. Failure of Buyer to disapprove any exception within the twenty (20) calendar-day period shall be deemed an approval of the exceptions shown in the Title Report. As to any exceptions to title placed of record or first identified after issuance of the Title Report or revealed by any supplemental report, there shall be a fifteen (15) calendar day period after Buyer's receipt of the supplemental Title Report for Buyer to review and approve

such exceptions on the same basis as provided above and the Closing Date shall be extended, if necessary, to accommodate such review.

5.3 **Right to Cure Title Defects.** If Buyer disapproves a title exception within the time period provided in Section 5.2, Seller shall have five (5) calendar days following receipt of Buyer's objection to give Buyer written notice specifying which objectionable title exceptions, if any, Seller shall use commercially reasonable efforts to attempt to remove from title on or before the Closing. If Seller gives Buyer such notice electing to cure such objectionable title exceptions, but Seller is unable, despite Seller's commercially reasonable efforts, to remove any such objectionable title defect on or before the Closing, Buyer may elect to either (i) terminate this Agreement, in which event all further rights and obligations of the parties shall cease; or (ii) waive Buyer's previous title objection and to proceed with the purchase of and take the Property subject to such exception, without any reduction in the Purchase Price and otherwise pursuant to the terms of this Agreement. If Seller either: (i) gives Buyer timely notice that Seller has elected not to attempt to remove all of the objected to title exceptions; or (ii) fails to give notice timely to Buyer, Buyer shall have five (5) calendar days after Buyer's receipt of Seller's notice or the expiration of the five (5) calendar day time period, as applicable, to notify Seller in writing of Buyer's election to (a) proceed with the purchase of and take the Property subject to such previously disapproved exceptions without any reduction in the Purchase Price and otherwise pursuant to the terms of this Agreement; or (b) terminate this Agreement, in which event the parties thereafter shall be relieved of any further rights and obligations under this Agreement except for terms which expressly survive termination of this Agreement. If Buyer shall fail to notify Seller timely of its election to proceed under clause (a) above, Buyer shall be deemed to have elected to terminate this Agreement, in which event the parties thereafter shall be relieved of any further rights and obligations under this Agreement, and each party shall bear its own costs incurred under this Agreement.

5.4 **Title Policy.** The parties shall, at Buyer's sole expense, cause Title Company to issue to Buyer at Closing a standard form coverage owner's policy of title insurance insuring Buyer's title to the Property in the full amount of the Purchase Price (the "Title Policy"). At Buyer's option and expense, Buyer may require that the title insurance policy to be issued to Buyer at Closing be an ALTA extended coverage owner's policy. Buyer shall be responsible to deliver to the Title Company any survey required by the Title Company for extended coverage, at Buyer's expense, and such survey shall be obtained and delivered by Buyer to the Title Company no later than twenty (20) calendar days after the Effective Date.

6. **Contingency and Permit Periods.**

6.1 **Buyer's Contingency Period.** Buyer shall have forty-five (45) calendar days from the date of the Effective Date (the "Contingency Period") to satisfy itself concerning the condition of soils; the suitability and condition of the Property; and the feasibility of developing the Property for Buyer's intended use ("Feasibility Contingency"). Buyer shall diligently and continuously work to resolve and satisfy itself with respect to the foregoing matters. If Buyer determines (in its sole and complete discretion) that it is not satisfied with such matters, Buyer may, at any time on or before 5 p.m. (Pacific Time) on the last day of the Contingency Period, rescind this Agreement by giving written notice to Seller. In the event of such rescission, this Agreement thereafter shall be null and void and neither party shall have any

obligation to the other except for obligations that expressly survive the termination of this Agreement. If Buyer does not notify Seller that it is rescinding this Agreement within the time period specified above, then Buyer's Feasibility Contingency shall be deemed waived. During the Contingency Period, Buyer may enter upon the property for purposes of inspection and testing except that Buyer may not undertake invasive or intrusive testing without the prior written consent of Seller. Buyer shall reimburse Seller for any damages it causes to the Property during any inspection or testing and shall defend, indemnify and hold Seller harmless from and against any loss, damage, liability, claims or costs resulting from injuries or harm to persons or property (including but not limited to Buyer and Buyer's officials, employees, consultants or other representatives performing the testing or inspection), arising out of or in any way connected with Buyer's inspection or testing on the Property, excepting only such injury or harm as may have been caused by the fault or negligence of Seller or its employees. Buyer's indemnity obligations under this Section 6.1 shall survive the Closing or termination of this Agreement.

6.2 **Review Materials**. No later than five (5) calendar days after the Effective Date, Seller will deliver to Buyer copies of all studies and reports regarding the environmental condition of the Property in Seller's possession, including reports and studies regarding Hazardous Materials (as defined in Section 9.1.7), wetlands, soils, ground water and slopes (collectively, the "Environmental Reports").

6.3. **Waiver of Right to Receive Seller Disclosure Statement and Waiver of Right to Rescind**. Pursuant to the Revised Code of Washington 64.06.010, Buyer hereby waives receipt of a seller disclosure statement as set forth in Chapter 64.06 RCW. Notwithstanding the foregoing, Buyer and Seller wish to comply with RCW 64.06 in the event Buyer's waiver is held to not be enforceable. RCW 64.06.010(7) provides that Buyer may waive its right to receive the Seller Disclosure Statement; provided, however, if the answer to any of the questions in the section of the Seller Disclosure Statement entitled "Environmental" would be "yes," Buyer may not waive the receipt of the "Environmental" section of the Seller Disclosure Statement. By executing this Agreement, Buyer acknowledges that it has received the "Environmental" section of the Seller Disclosure Statement attached hereto as Exhibit B and Buyer waives its right to receive the balance of the completed seller disclosure statement.

7. **Brokers and Commissions.** There are no Brokers and Commissions involved in this transaction.

8. **Closing.**

8.1 **Closing Date.** This purchase and sale will be closed with the commercial escrow department ("Escrow Agent") at the Title Company's address located at 124 N 2nd St. Shelton Washington office. The closing ("Closing") will occur no later than _____, as such closing may be extended as provided in Section 5.2. If Closing does not occur on or before the Closing Date, or any later date mutually agreed to in writing by Seller and Buyer (which date shall then become the "Closing Date"), the Escrow Agent shall immediately terminate the escrow and return all documents to the party that deposited them.

8.2 **Real Property Prorations.** All revenues and expenses of the Property, including but not limited to, real property taxes and special assessments due in the year of

Closing, rents, water, sewer and utility charges, and other expenses normal to the ownership, use, operation and maintenance of the Property shall be prorated as of 12:01 a.m. on the Closing Date. Seller and Buyer hereby agree that if any of the aforesaid prorations cannot be calculated accurately on the Closing Date, then the same shall be calculated within thirty (30) calendar days after the Closing Date and either party owing the other party a sum of money based on subsequent prorations(s) shall promptly pay said sum to the other party. If payment is not made within ten (10) calendar days after delivery of a bill therefore, the owing party shall pay interest on such amounts at the rate of twelve percent (12%) per annum from the Closing Date to the date of payment.

8.3 **Seller's Escrow Deposits.** On or before the Closing Date, Seller shall deposit into escrow the following:

8.3.1 the duly executed and acknowledged Deed;

8.3.2 a duly executed and completed Real Estate Excise Tax Affidavit.

8.3.3 a duly executed non-foreign affidavit pursuant to Section 1445 of the Internal Revenue Code of 1986, as amended; and

8.3.4 all documents and/or funds required to remove all monetary liens and monetary encumbrances and to pay Seller's share of prorations under Section 8.2 and closing costs described in Section 8.6.

8.4 **Buyer's Escrow Deposits.** On or before the Closing Date, Buyer shall deposit into escrow the following:

8.4.1 cash in an amount sufficient to pay the Purchase Price and Reimbursements, plus the Buyer's share of prorations under Section 8.2 and Buyer's closing costs described in Section 8.6.1; and

8.4.2 a duly executed and completed Real Estate Excise Tax Affidavit.

8.5 **Additional Instruments and Documents.** Seller and Buyer shall each deposit into escrow any other instruments and documents that are reasonably required by the Escrow Agent or otherwise required to close the escrow and consummate the purchase and sale of the Property in accordance with this Agreement.

8.6 **Closing Costs.**

8.6.1 At Closing, Buyer shall pay for all closing costs including (a) the cost of recording the Deed; (b) the Title Company's escrow fee; and (c) the premiums for any title policy endorsements or extended coverage requested by Buyer.

9.1.3 **Non-foreign Status/At-Source Withholding.** Seller represents and warrants none of the individuals constituting the "Seller" are a "foreign person" as defined in Section 1445 of the Internal Revenue Code of 10954, as amended. Seller shall deliver to Buyer at Closing a Certificate of Non-foreign Status setting forth Seller's address and certifying that it is not a foreign person as so defined.

9.1.4 **Other Agreements.** There are no other contracts or agreements in force or effect for the sale of, or a right of first refusal or option for, all or any portion of the Property, and Seller agrees: (a) not to enter into any such contracts or agreements between the date hereof and Closing and (b) to use its best efforts to terminate any such contracts that come to its attention between the date hereof and Closing. There are no contracts or other agreements affecting the Property that will not be terminated at or prior to Closing.

9.1.5 **Encumbrances.** Seller's execution, delivery and fulfillment of its obligations under this Agreement shall not result in any default or violation of any agreement by which Seller is bound or which will result in any lien, charge or encumbrance on the Property.

9.1.6 **Exiting Leases.** There are no existing leases on the Property.

9.1.7 **Environmental.** To Seller's actual knowledge, Seller has not generated, stored, released or disposed of any substance or material on the Property, the generation, storage or disposal of which is regulated under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq., the Model Toxics Control Act (Chapter 70.105D RCW) or any comparable law, regulation, ordinance or order of any governmental body (any such substance or material so regulated being referred to herein as a "Hazardous Material"), except in compliance with such laws, regulations, ordinance or orders. To Seller's actual knowledge, Seller has obtained (and is in compliance with) all permits, licenses and other authorizations that are required under all federal, state and local environmental requirements customarily known to and followed by owners and operators of land similar to the Property and located in the area in which the Property is located, including any such laws, regulations or ordinances relating to emissions, discharges, releases or threatened releases of materials into the environment or otherwise relating to the use, treatment, storage, disposal, transport or handling of such materials. Neither Seller, nor to Seller's actual knowledge any prior owner, occupant or user of the Property, has received any notice or other communications concerning any alleged violation of any environmental requirements. To Seller's actual knowledge, there is not constructed, placed, deposited, stored, disposed of or located on the Property (i) any PCBs or transformers, capacitors, ballasts or other equipment which contains dielectric fluid containing PCBs; or (ii) any underground storage tanks. Any breach of this warranty prior to the Closing Date shall entitle the Buyer to terminate this Agreement. Upon such termination, the escrow will be terminated, all documents and other funds will be returned to the party who deposited them, and neither party will have any further rights or obligations under this Agreement except as otherwise provided in this Agreement.

9.1.8 **Completeness of Statements.** To Seller's actual knowledge, no representation or warranty by Seller in this Agreement or in any written material

8.7 **Possession.** Buyer shall be entitled to possession of the Property upon Closing.

8.8 **Condition Precedent to Buyer's Obligations.** Buyer's obligation to close the purchase of the Property in accordance with the terms of this Agreement is expressly conditioned on, and subject to satisfaction of the following conditions precedent, which are intended solely for the benefit of Buyer. If either of the following conditions precedent is not satisfied by Closing, Buyer shall have the right, at its sole election, to waive the condition and proceed with the purchase or to exercise its remedies pursuant to Section 12.1.

8.8.1 **Performance by Seller.** Seller shall have performed and complied in all material respects with all agreements, covenants and conditions contained in this Agreement required to be performed or complied with by Seller prior to or at Closing.

8.8.2 **Representations and Warranties.** All of Seller's representations and warranties contained in or made pursuant to this Agreement shall have been true and correct in all materials respects when made and shall be true and correct in all materials respects as of the Closing Date.

8.9 **Condition Precedent to Seller's Obligations.** Seller's obligation to sell the Property at Closing under this Agreement is expressly conditioned on, and subject to satisfaction of the following condition precedent, which is intended solely for the benefit of Seller. If the following condition precedent is not satisfied by Closing, Seller shall have the right, at its sole election, to waive the condition and proceed with the purchase, or to exercise its remedies pursuant to Section 12.2.

8.9.1 **Performance by Buyer.** Buyer shall have performed and complied in all material respects with all agreements, covenants and conditions contained in this Agreement required to be performed or complied with by Buyer prior to or at Closing.

9. Representations and Warranties.

9.1 **Seller's Representations and Warranties.** Seller represents and warrants to Buyer that the following facts are true as of the parties' mutual execution of this Agreement and as of the Closing Date:

9.1.1 **No Litigation.** Except as disclosed in writing by Seller to Buyer, there is no pending litigation or administrative action with respect to the Property or the Seller's interest in the Property and Seller has not received any notice of any threatened or administrative action with respect to the Property or the Seller's interest in the Property.

9.1.2 **Authority of Seller.** This Agreement is a valid and binding obligation of the Seller, enforceable against Seller in accordance with its terms. No authorizations or approvals, whether of organizational bodies, governmental bodies, or otherwise, will be necessary in order for Seller to enter into this Agreement and to perform Seller's obligations as set forth herein. The consummation of the transactions contemplated hereunder will not conflict with or result in the breach of any law, regulation, writ, injunction or decree of any court or governmental instrumentality applicable to Seller or to the Property.

furnished by Seller to Buyer pursuant to or in connection with this Agreement, contains any untrue statement of a material fact or omits to state a material fact necessary to make any statement herein or therein not misleading.

9.2 **Buyer's Representations and Warranties.** Buyer represents and warrants to Seller that the following facts are true as of the date of the parties' mutual execution of this Agreement and as of the Closing Date:

9.2.1 **Pending Actions.** To Buyer's knowledge, there is no action, suit, arbitration, unsatisfied order or judgment, or proceeding pending against Buyer, which if adversely determined, could materially interfere with Buyer's consummation of the transactions contemplated by this Agreement.

9.2.2 **Authority of Buyer.** This Agreement must be ratified by the Shelton City Council in an open public meeting to be enforceable against Buyer. Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated hereunder will conflict with or result in the breach of any law, regulation, writ, injunction or decree of any court or governmental instrumentality applicable to Buyer or to the Property.

The representations and warranties of Seller and Buyer in this Section 9 shall survive Closing and recording of the Deed for a period of one hundred eighty (180) calendar days from the Closing Date and shall terminate as of the end of such period except to the extent that Seller or Buyer, as applicable, advises the other party in writing of an alleged breach thereof prior to such termination date, stating with specificity the nature of the alleged breach and concurrently providing the other party with documentation thereof.

10. "AS IS" SALE.

10.1 **Condition of Property**. Buyer represents and warrants to Seller and agrees that prior to Closing, Buyer will have examined and investigated to Buyer's full satisfaction the physical condition of the Property and the status of all entitlements, restrictions or encumbrances relating to the Property. Except as otherwise set forth in this Agreement or in instruments delivered by Seller pursuant to this Agreement, Buyer has not relied, will not rely on, and Seller is not liable for or bound by, any expressed or implied warranties, guarantees, statements, representations or information pertaining to the Property or relating thereto made or furnished by any agent representing or purporting to represent Seller, to whomever made or given, directly or indirectly, verbally or in writing.

10.2 **AS-IS Sale.** Except for the express representations and warranties of Seller in this Agreement or in the conveyance documents to be executed by Seller at Closing, Seller specifically disclaims all warranties or representations of any kind or character, express, implied, statutory or otherwise, with respect to the Property's condition. AT CLOSING, BUYER SHALL ACCEPT THE PROPERTY "AS IS" AND "WHERE IS", AND BUYER ACKNOWLEDGES THAT EXCEPT FOR THE EXPRESS REPRESENTATIONS AND WARRANTIES OF SELLER IN THIS AGREEMENT, SELLER HAS MADE NO REPRESENTATION OF ANY KIND RELATING TO THE PHYSICAL CONDITION OF THE PROPERTY, INCLUDING BUT NOT LIMITED TO ZONING, ENVIRONMENTAL

MATTERS OR CONTAMINATION, UTILITIES SERVICE, AVAILABILITY OF UTILITIES, EFFECT OF LOCAL, STATE AND FEDERAL REGULATIONS ON USE AND ENJOYMENT OF THE PROPERTY, SOIL SUITABILITY AND COMPACTION, DRAINAGE, FITNESS OR USABILITY OF IMPROVEMENTS NOT TO BE REMOVED FOR ANY PURPOSE, INSECT OR OTHER PEST INFESTATION, AND LATERAL OR SUBJACENT SUPPORT. Buyer acknowledges and agrees that the disclaimers set forth in this Section 10.2 are an integral part of this Agreement and that Seller would not have agreed to complete the sale on the terms provided in this Agreement without the disclaimers set forth in this Section 10.2.

Seller's initials. Buyer's initials.

The covenants, agreements, representations and warranties of Buyer in this Section 10 shall survive the Closing and recording of the Deed.

11. **Maintenance of Property Pending Closing.** At all times before the Closing, Seller shall manage and operate the Property in a manner consistent with Seller's past practices. Seller agrees: (a) to maintain all usual and necessary business records (if any) pertaining to the Property, consistent with Seller's past practices; (b) to maintain the Property in its current condition and state of repair (normal wear and tear and casualty loss excepted); and (c) to maintain its existing property and casualty insurance on the Property.

12. **Default.**

12.1 **By Seller.** In the event Seller fails, without legal excuse, to complete the sale of the Property in accordance with this Agreement or otherwise defaults hereunder, Buyer will be entitled as its sole remedy, either (a) to seek specific performance of Seller's obligations under this Agreement provided that an action thereon is commenced within one hundred eighty (180) calendar days of Seller's failure to perform, or (b) to terminate this Agreement by written notice to Seller and Escrow Agent. If Buyer terminates this Agreement pursuant to this Section 12.1 the escrow will be terminated and all documents will be immediately returned to the party who deposited them, and neither party will have any further rights or obligations under this Agreement, except as otherwise provided in this Agreement.

12.2 **By Buyer.** In the event Buyer fails, without legal excuse, to complete the purchase of the Property in accordance with this Agreement or otherwise defaults hereunder, Seller will be entitled as its sole remedy, to terminate this Agreement by written notice to Buyer and Escrow Agent. If Seller terminates this Agreement pursuant to this Section 12.2 the escrow will be terminated and all documents will be immediately returned to the party who deposited them, and neither party will have any further rights or obligations under this Agreement, except as otherwise provided in this Agreement.

13. **Miscellaneous.**

13.1 **Binding Effect.** This Agreement shall be binding upon and inure to the benefit of the parties, and their respective heirs, personal representatives, successors, and assigns.

No assignment of this Agreement by Buyer shall operate to relieve Buyer from any of its liabilities under this Agreement.

13.2 **Notices.** Any notice under this Agreement must be in writing and be personally delivered, delivered by recognized overnight courier service or given by mail or via facsimile. Any notice given by mail must be sent, postage prepaid, by first class, certified or registered mail, return receipt requested. All notices must be addressed to the parties at the following addresses or at such other addresses as the parties may from time to time direct in writing:

If to Seller, to: 2246 NW Thurman St, Portland OR 97210-2519

If to Buyer, to: 525 West Cota, Shelton Wa. 98584

Any notice will be deemed to have been given, if personally delivered, when delivered, and if delivered by courier service, one (1) business day after deposit with the courier service, and if mailed, three (3) business days after deposit at any post office in the United States of America, and if delivered via facsimile, the same day as transmission is verified; provided that any verification that occurs after 5 p.m. on a business day, or at any time on a Saturday, Sunday or holiday, will be deemed to have occurred as of 9 a.m. on the following business day.

13.3 **Authority.** The parties each represent and warrant that the persons signing below have the requisite authority to bind them, subject to ratification by the Shelton City Council in an open public meeting.

13.4 **Amendments.** This Agreement may be amended or modified only by a written instrument executed by Seller and Buyer.

13.5 **Governing Law.** This Agreement will be governed by and construed exclusively in accordance with the laws of the State of Washington.

13.6 **Entire Agreement.** This Agreement and the exhibits hereto constitute the entire agreement between the parties with respect to the purchase and sale of the Property, and supersede all prior agreements and understandings between the parties relating to the subject matter of this Agreement.

13.8 **Time of the Essence.** Time is of the essence under this Agreement. If the date for any performance under this Agreement falls on a weekend or a holiday, the time for such performance shall extend to the next business day. Any period of time stated in this Agreement shall expire at 9:00 p.m. of the last calendar day of the specified period of time.

13.9 **Waiver.** Neither Seller's nor Buyer's waiver of the breach of any covenant under this Agreement will be construed as a waiver of the breach of any other covenants or as a waiver of a subsequent breach of the same covenant.

13.10 **Negotiation and Construction.** This Agreement and each of its terms and provisions are deemed to have been explicitly negotiated between the parties, and the language in all parts of this Agreement will, in all cases, be construed according to its fair meaning and not strictly for or against either party.

13.11 **Tax Effect.** No party has made or is making any representations to the other concerning any of the tax effects of the transactions provided for in this Agreement. No party shall be liable for or in any way responsible to any other party because of any tax effect resulting from the transactions provided for in this Agreement. The property is being acquired in lieu of condemnation and the parties believe that this transaction is therefore exempt from real estate excise tax pursuant to WAC 458-61A-206(3).

13.12 **Representation.** It is agreed and acknowledged that the firm of Porter Foster Rorick LLP represented only the Buyer in the drafting of this Agreement, and Seller acknowledges that it is entitled to seek separate legal counsel regarding this Agreement.

13.13 **Survival.** Sections 8.2, 13.1, 13.4, 13.5, 13.7, 13.9, 13.11, 13.12 and 13.13 shall survive the Closing of this Agreement and delivery of the Deed. The representations and warranties contained in this Agreement shall survive the Closing of this agreement and delivery of the Deed for the period of time specifically provided herein.

13.14 **Counterparts; Scanned or Facsimile Signatures.** This Agreement may be executed in any number of counterparts, and all counterparts shall be deemed to constitute a single agreement. The execution and delivery of one counterpart by any party shall have the same force and effect as if the party had signed all other counterparts. Delivery by facsimile or by e-mail of a PDF of an executed counterpart shall have the same effect as physical delivery of an original.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the last date set forth below.

SELLER:

By: Marian Shannon
Marian Shannon

Date: 1/26/21

BUYER:

By: _____
Mayor Kevin Dorcy

Date: _____

SE NEW of Angle Co Rd

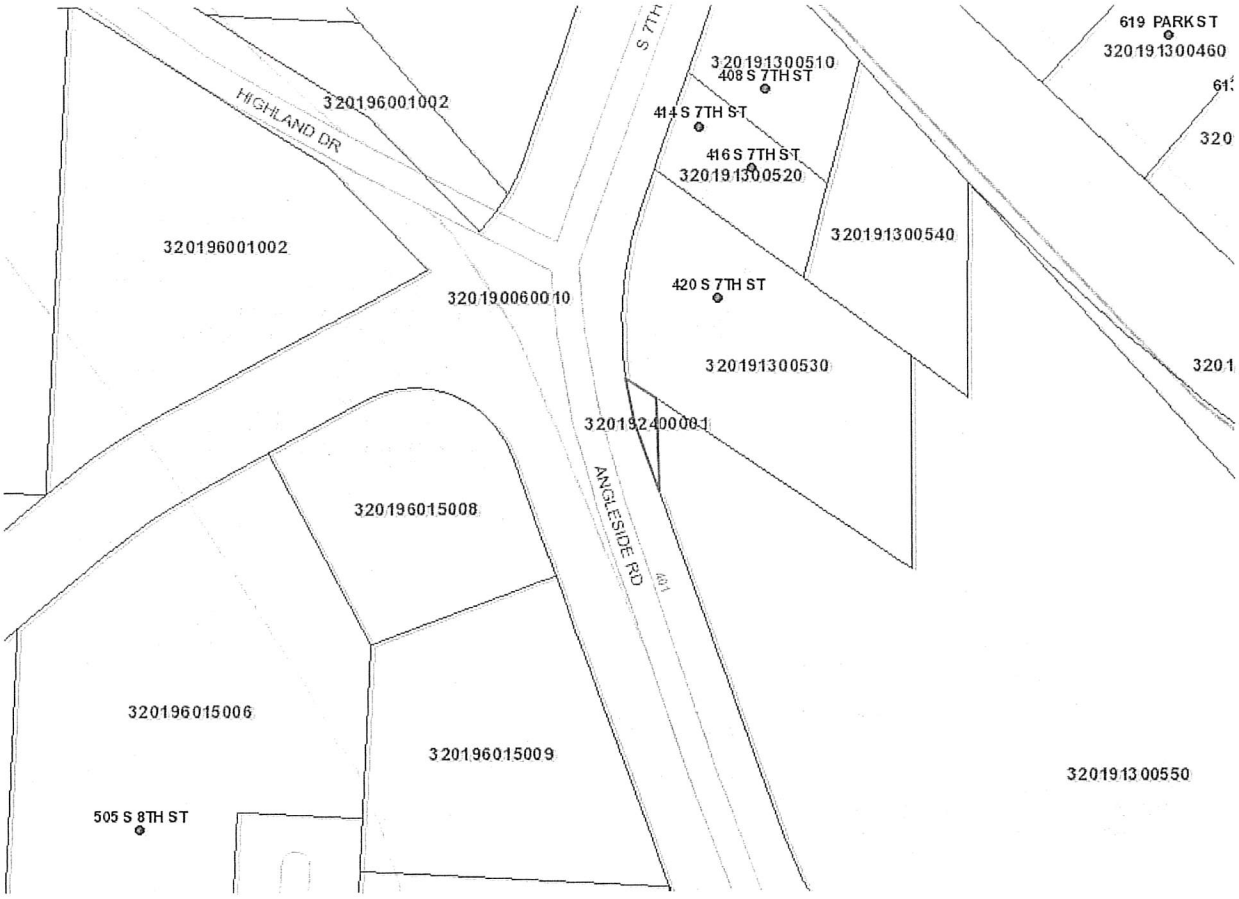


EXHIBIT A

LEGAL DESCRIPTION
Tract 55 of SW ¼ NE 14

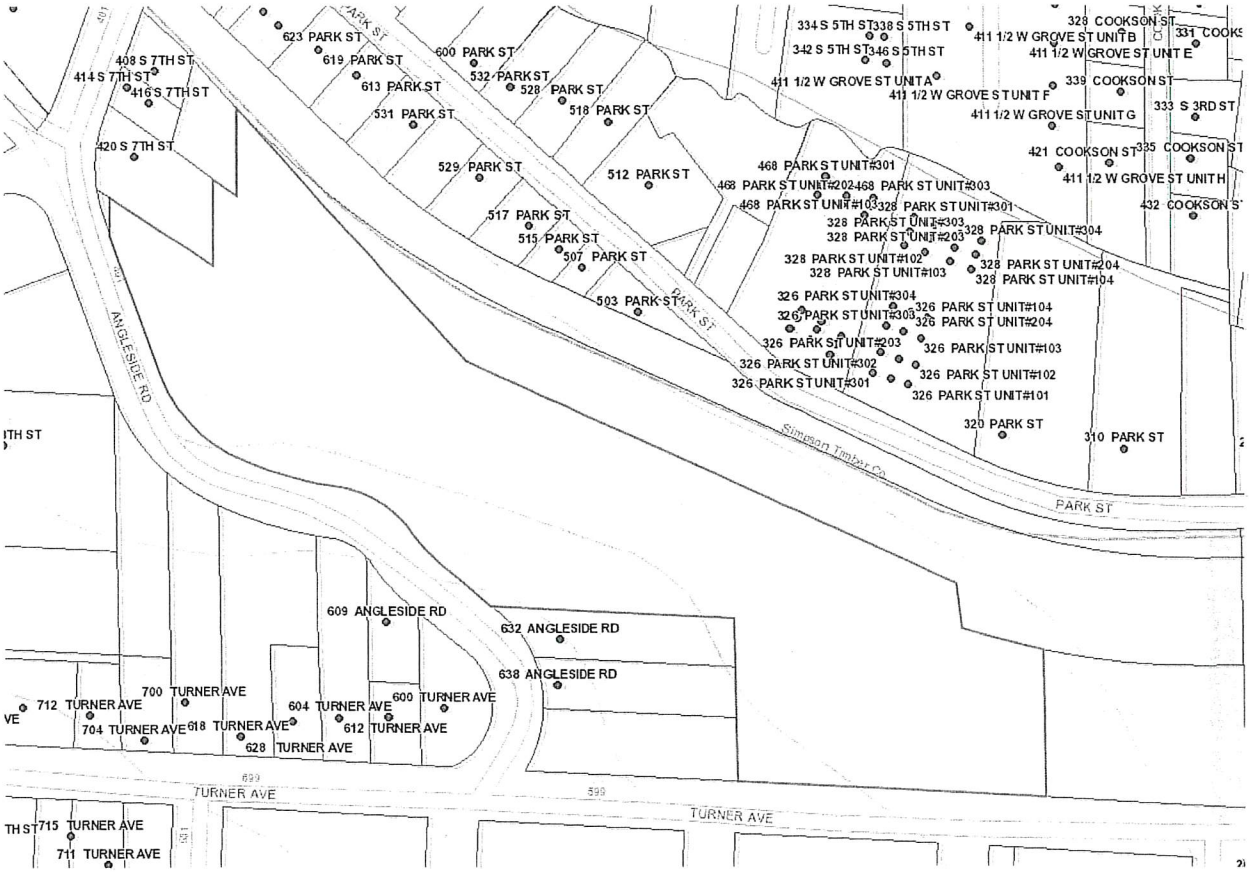


EXHIBIT B

SELLER ENVIRONMENTAL DISCLOSURES

NOTICE TO BUYER:

THE FOLLOWING DISCLOSURES ARE MADE BY SELLER ABOUT THE CONDITION OF THE PROPERTY LEGALLY DESCRIBED IN EXHIBIT A, ATTACHED HERETO, SITUATE IN THE COUNTY OF PIERCE, STATE OF WASHINGTON.

SELLER MAKES THE FOLLOWING DISCLOSURES OF EXISTING MATERIAL FACTS OR MATERIAL DEFECTS TO BUYER BASED ON SELLER'S ACTUAL KNOWLEDGE OF THE PROPERTY AT THE TIME SELLER COMPLETES THIS DISCLOSURE STATEMENT. UNLESS YOU AND SELLER OTHERWISE AGREE IN WRITING, YOU HAVE THREE BUSINESS DAYS FROM THE DAY SELLER OR SELLER'S AGENT DELIVERS THIS DISCLOSURE STATEMENT TO YOU TO RESCIND THE AGREEMENT BY DELIVERING A SEPARATELY SIGNED WRITTEN STATEMENT OF RESCISSION TO SELLER OR SELLER'S AGENT. IF THE SELLER DOES NOT GIVE YOU A COMPLETED DISCLOSURE STATEMENT, THEN YOU MAY WAIVE THE RIGHT TO RESCIND PRIOR TO OR AFTER THE TIME YOU ENTER INTO A SALE AGREEMENT.

THE FOLLOWING ARE DISCLOSURES MADE BY SELLER AND ARE NOT THE REPRESENTATIONS OF ANY REAL ESTATE LICENSEE OR OTHER PARTY. THIS INFORMATION IS FOR DISCLOSURE ONLY AND IS NOT INTENDED TO BE A PART OF ANY WRITTEN AGREEMENT BETWEEN BUYER AND SELLER.

FOR A MORE COMPREHENSIVE EXAMINATION OF THE SPECIFIC CONDITION OF THIS PROPERTY YOU ARE ADVISED TO OBTAIN AND PAY FOR THE SERVICES OF QUALIFIED EXPERTS TO INSPECT THE PROPERTY, WHICH MAY INCLUDE, WITHOUT LIMITATION, ARCHITECTS, ENGINEERS, LAND SURVEYORS, PLUMBERS, ELECTRICIANS, ROOFERS, BUILDING INSPECTORS, ON-SITE WASTEWATER TREATMENT INSPECTORS, OR STRUCTURAL PEST INSPECTORS. THE PROSPECTIVE BUYER AND SELLER MAY WISH TO OBTAIN PROFESSIONAL ADVICE OR INSPECTIONS OF THE PROPERTY OR TO PROVIDE APPROPRIATE PROVISIONS IN A CONTRACT BETWEEN THEM WITH RESPECT TO ANY ADVICE, INSPECTION, DEFECTS OR WARRANTIES.

SELLER [ ] **IS** [ ] **IS NOT** OCCUPYING THE PROPERTY.

SELLER'S ENVIRONMENTAL DISCLOSURES

*If you answer "Yes" to a question with an asterisk (*), please explain your answer and attach documents, if available and not otherwise publicly recorded. If necessary, use an attached sheet.

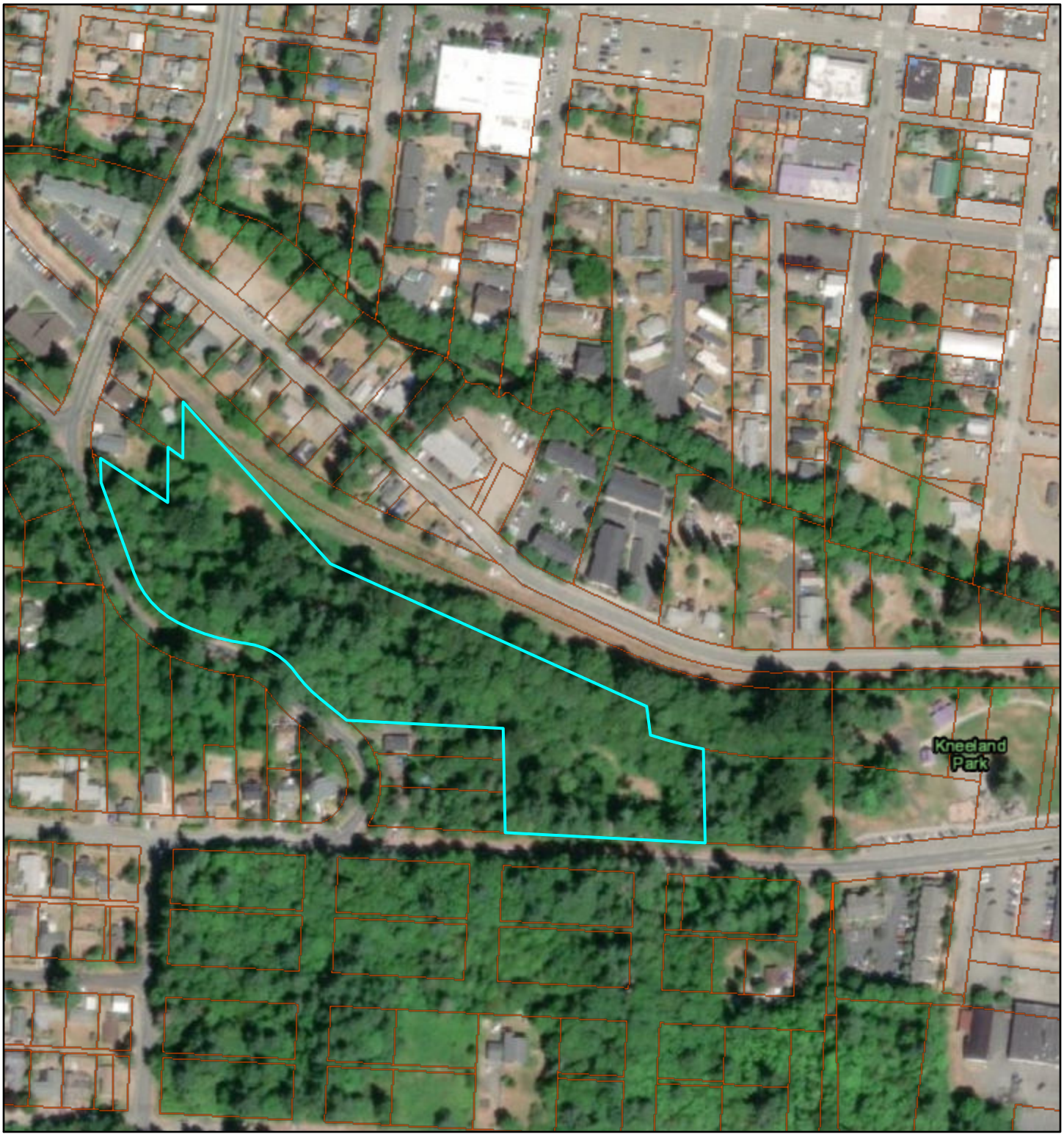
		YES	NO	DON'T KNOW
*A	Have there been any flooding, standing water, or drainage problems on the property that affect the property or access to the property?		✓	
*B	Is there any material damage to the property from fire, wind, floods, beach movements, earthquake, expansive soils, or landslides?		✓	
*C	Are there any shorelines, wetlands, floodplains, or critical areas on the property?		✓	
*D	Are there any substances, materials, or products in or on the property that may be environmental concerns, such as asbestos, formaldehyde, radon gas, lead-based paint, fuel or chemical storage tanks, or contaminated soil or water?		✓	
*E	Is there any soil or groundwater contamination?			✓
*F	Has the property been used as a legal or illegal dumping site?			✓
*G	Has the property been used as an illegal drug manufacturing site?		✓	

VERIFICATION

The foregoing answers and attached explanations (if any) are complete and correct to the best of Seller's knowledge and Seller has received a copy hereof. Seller authorizes all of its real estate licensees, if any, to deliver a copy of this disclosure statement to other real estate licensees and all prospective buyers of the property.

By: Marian J. Shannon Date: 1/26/21

Mason County WA GIS Web Map



3/24/2021, 9:04:55 AM

1:3,072

0 0.03 0.05 0.1 mi

0 0.04 0.08 0.16 km

County Boundary

Tax Parcels (Zoom in to 1:30,000)

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Mason County WA GIS Web Map Application
Richard Diaz | Earthstar Geographics | Esri, HERE, Garmin |

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item E3)

Touch Date: 03/16/2021
Brief Date: 04/06/2021
Action Date: 04/20/2021

Department: Community Development

Presented By: Mark Ziegler

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:		**REVIEWED:**
☒	Dept. Head	
☐	Finance Director	
☐	Attorney	
☒	City Clerk	
☐	City Manager	

PROGRAM/PROJECT TITLE:
Traffic Box Wrap Project Art Recommendations

ATTACHMENTS:
Proposed Top 3 Choices Survey Results

☐	Ordinance
☐	Resolution
☐	Motion
☒	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

The Shelton Arts Commission, along with the Martha Reed Foundation, are seeking to install traffic box wraps around the community. This public art project will add interest to often neglected infrastructure around the city. This project is sponsored by the Martha Reed Foundation who was a part of the approval process. The Traffic Box Wrap Project procedures have been followed with tasks:

1. Call for Artist – The call for artists were distributed to the community of Mason County through press release and social media. The deadline was February 19, 2021. Twenty community members submitted proposals for the project.
2. Public Vote – We then held a public vote via Open Town Hall from March 1 – March 12, 2021 to determine which top three choices would go through the approval process.
3. The Arts Commission approved the top three art pieces on March 23, 2021.
4. On April 6, 2021 staff are presenting the recommended art to the City Council for approval. Upon approval, the art will be installed in early May 2021 weather depending.

The selected work includes:

Community Member	Title	Box Location
Crystal Rodriguez	98584	Wallace Kneeland & Bell Ln
Kyle Twiddy	Untitled	7th & Alder
Matt Misch	Bridges to Nowhere	Wallace Kneeland & Spring Rd.

ANALYSIS/OPTIONS/ALTERNATIVES:

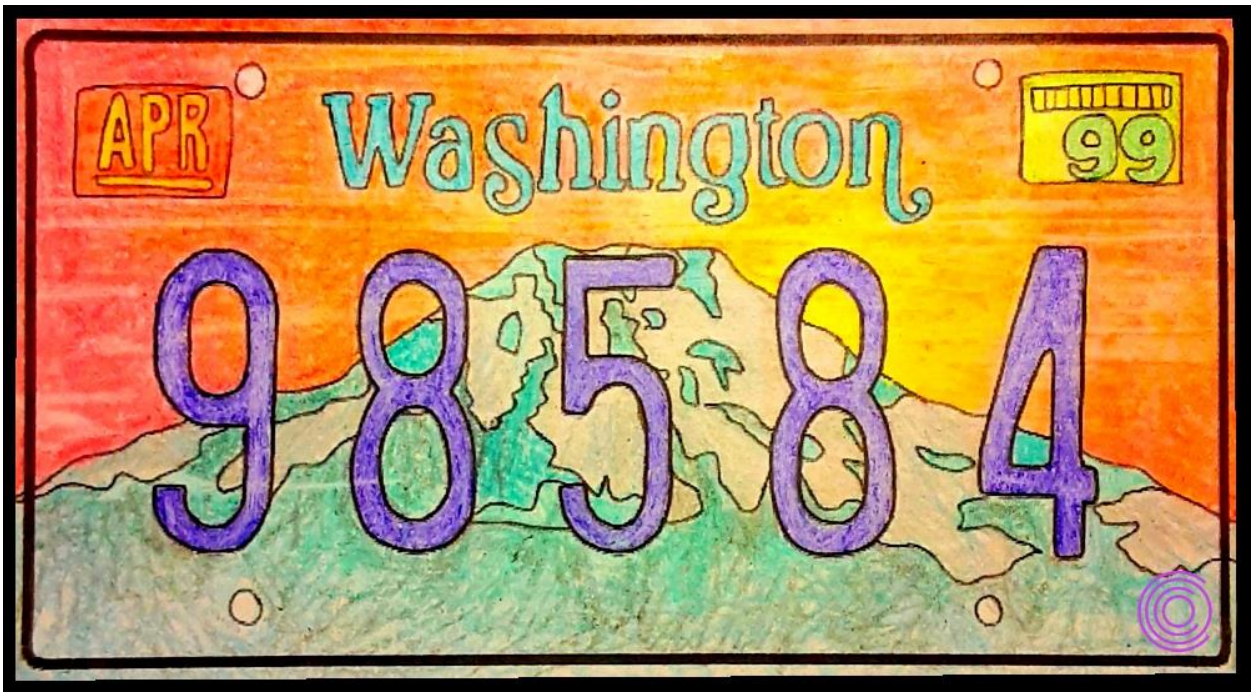
BUDGET/FISCAL INFORMATION:
One of the three installations are provided through donation from The Martha Reed Foundation.

PUBLIC INFORMATION REQUIREMENTS:

STAFF RECOMMENDATION/MOTION:

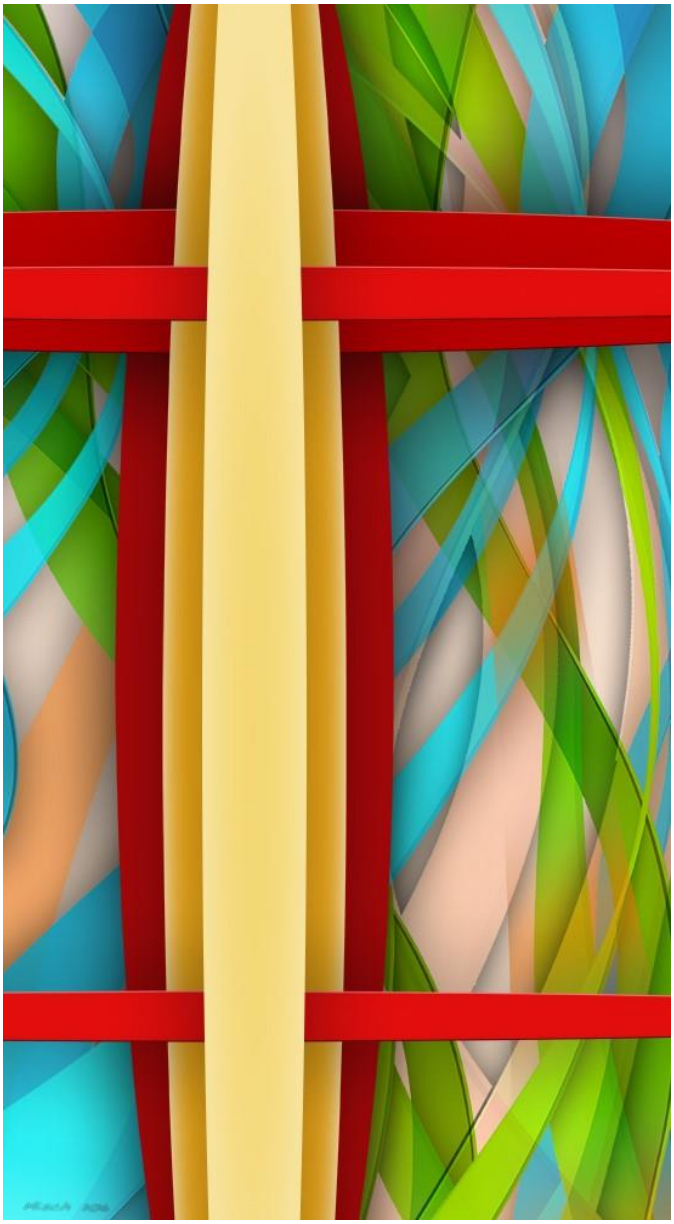
"I move to forward the approval of the Shelton Arts Commission's Traffic Box Wrap Project recommended art work to the Action Agenda of the April 20 City Council meeting for further consideration".

Crystal Rodriguez – “98584”



Kyle Twiddy – “Untitled”

Matt Misch – “Bridges to Nowhere”



Please select your top 3 art submissions from the list below.

	Response Percent	Response Count
Adam Antonio - The Office	8.1%	93
Dale Campbell - Simpson Railroad Along Goldsborough Creek	15.2%	175
Monica Carvajal - Rhodies	10.0%	116
Maranda Cromwell - Wingin' It	4.3%	50
Fiona Dahl - Cotton Candy Sunset	14.3%	165
Kristina David - Best Friend Beyond	10.1%	117
Angelo Dejesus - The View From Upside Down	3.5%	41
Juanita Dove - Old Logging Times	15.8%	183
Jeffrey Harris - Shades of Serenity	13.2%	152
Jax Hix - The Wise Wolf	7.0%	81
Wesslee Holt - Untitled	3.7%	43
Matt Misch - Bridges to Nowhere	29.4%	339
Kit Pederson - Bigfoot	10.3%	119
Symone Pettersen - Fishing on Hammersley	13.6%	157
Crystal Rodriguez - 98584	36.2%	418
Glenhelen Smither - Welcome to Shelton	5.1%	59
Janette Stiles - Shelton Dogs Club	9.1%	105
Pete Toppano - Rainier Bliss	20.4%	236
Kyle Twiddy - Untitled	50.2%	580
Kennedee Woolett - Time to Blossom	20.4%	236

TOTAL VOTES: 1,259

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item E4)

Touch Date: 03/16/2021
Brief Date: 04/06/2021
Action Date: 04/20/2021

Department: Public Works

Presented By: Jared Welander

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:		**REVIEWED:**
☒	Dept. Head	
☐	Finance Director	
☐	Attorney	
☒	City Clerk	
☐	City Manager	

PROGRAM/PROJECT TITLE:
Resolution 1190-0221Street Sweeper Purchase

ATTACHMENTS:
- Resolution No 1190-0221
- Power Point Presentation
- Purchase Order No. 21-019
- 2021 Budget Request

☐	Ordinance
☒	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:
The current street sweeper is over eleven years old and maintenance costs are steadily increasing. The City has over 118 lane miles of paved streets needing to be maintained. 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 proposed vacuum style street sweeper will provide for improved debris removal, more reliable operation, as well as decrease repair and maintenance costs.

Even though this purchase is utilizing the Washington State Procurement List (State Contract), City staff chose to evaluate alternate sweepers to ensure this large purchase will meet the current and future needs of the City. City staff reached out to vendors for demonstration of the Elgin Crosswind1, Nitehawk Raptor 2, and the Global R4 Air Regenerative Street Sweeper. These demonstrations further identified the safety, maintenance, and efficiency benefits the R4 Air Regenerative Street Sweeper has over the other two models.

The R4 Air Regenerative Street Sweeper's center mounted cab/forward layout gives our operators the best visibility of road surface, pedestrians, and surrounding traffic. It also allows our operators to watch right and left gutter brooms at all times and sweep anywhere without changing seating positions and re-adjusting mirrors. The design of the R4 makes routine maintenance easy, such as having electrical and hydraulic components in one central location, which allows more operator time spent sweeping streets and less time completing shop maintenance.

ANALYSIS/OPTIONS/ALTERNATIVES:
Other purchase options were evaluated, as discussed in the Council Power Point presentation.

BUDGET/FISCAL INFORMATION:
Budget request of $315,000 was approved in the adopted 2021 Equipment Maintenance and Repair (EM&R) Budget. The Global R4 Air Regenerative Street Sweeper cost is $ 310,437.73 including sales tax.

PUBLIC INFORMATION REQUIREMENTS:
Information can be obtained through the Public Works Department.

STAFF RECOMMENDATION/MOTION:
Staff recommends, *"I move that Resolution No. 1190-0221 be forwarded to the Action Agenda of the April 20th City Council meeting for further consideration"*.

RESOLUTION NO. 1190-0221

A RESOLUTION OF THE COUNCIL OF THE CITY OF SHELTON, WASHINGTON, AUTHORIZING THE CITY MANAGER TO SIGN PURCHASE ORDERS FOR THE ACQUISITION OF A STREET SWEEPER

WHEREAS, the 2021 adopted budget included an expenditure of $315,000 out of the Equipment Maintenance & Repair (EM&R) fund for a new Street Sweeper; and

WHEREAS, staff reviewed and demonstrated three different sweepers to determine which would best fit the City's needs; and

WHEREAS, out of the three sweepers, Global R4 Air Regenerative Street Sweeper had more safety features and ease of maintenance; and

WHEREAS, utilizing the Washington State Procurement List, City Staff has obtained a quote for the desired equipment from Western Systems; and

WHEREAS, RCW 39.34.030 allows for cooperative purchasing for the procurement of any goods or services; and

WHEREAS, the Washington State Procurement List is a cooperative purchasing source for the use of state, local, and tribal governments.

THEREFORE, BE IT RESOLVED by the City Council of the City of Shelton that the City Manager is authorized to sign purchase order #21-019 in the amount of $310,437.73 for the purchase of the Global R4 Air Regenerative Street Sweeper from Western Systems.

Passed by the City Council at its regular meeting held on the 20th day of April 2021.

_____
Mayor Dorcy

ATTEST:

_____
City Clerk Nault

Street Sweeper Purchase

April 6, 2021

Why do we sweep city streets?

- Health & Safety: Trash-filled roads can be hazardous. Drivers, pedestrians, and cyclists may have to maneuver to avoid hitting debris, which could lead to accidents. Some garbage could be dangerous to humans and, buildups of garbage attract rodents, bugs, and other critters. This could pose a safety risk for animals -- including pets -- could ingest something harmful causing health issues.
- Storm Drains: When trash, gravel and debris clog the storm drains the water bypasses the storm system and travels overland causing localized flooding of streets. Street sweeping helps remove debris and contaminants from the roadways that would otherwise flow into storm drains, causing water pollution in the local waterways.
- Purpose: Street sweeping keeps our streets clean, which in turn promotes public health and safety, to ensure that residents and visitors are safe and reduce the likelihood of vehicle damage and property damage. Regular cleaning of our City streets reduces ponding water and debris on the roadways, extending the life of our pavements surfaces. By having an established regular street sweeping schedule it will protect and preserve what we have now for the future.

Current Street Sweeper

- The current broom only street sweeper is over eleven years old and maintenance costs are steadily increasing.
- The city has over 118 lane miles of paved streets needing to be maintained.
- 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 proposed vacuum style street sweeper will remove much larger amount of debris from City streets, provide for more reliable operation, as well as decrease repair and maintenance costs.
- Funding for the street sweeper replacement will be from the City Equipment Maintenance and Repair Fund (EM&R) as approved in the FY2021 Budget.
- Current sweeper trade-in value $18,000. The plan is to keep the existing sweeper as backup for the ability to put 2 sweepers on the streets when needed after large wind and snow storms.

New Sweeper Purchase Options

Global R4 Air Regenerative
Street Sweeper

$310,437.73

Elgin Crosswind1
Street Sweeper

$311,989.11

Nitehawk Raptor II
Street Sweeper

$152,029.15

- All 3 options have vacuum system and brooms whereas our current sweeper only has a large main broom and gutter brooms.
- The vacuum/broom system minimizes dust created when sweeping and also provides better cleaning and more efficient operation.
- All 3 options have larger hoppers than our current sweeper which means more time spent sweeping and less trips back to the shop to dump.
- All 3 have excellent fuel efficiency compared to our current sweeper
- R4 and Crosswind1 are more comparable than the Raptor II. Both are larger, have more cab space, better and more upgrade options, and from the demonstrations both had a superior vacuum/broom system.

Differences

Dumping Ability

Global R4 Air Regenerative
Street Sweeper

- Ability to dump into dump trucks, garbage cans and piles.
- 5.6 CU YD Hopper

Elgin Crosswind1
Street Sweeper

- Ability to dump into piles
- 8.0 CU YD Hopper

Nitehawk Raptor II
Street Sweeper

- Ability to dump into garbage cans and piles
- 5.0 CU YD Hopper

Maintenance

R4

- One centralized electrical panel which allows maintenance staff easy accessibility for inspection and trouble shooting.
- Hydraulic hoses in the open in a centralized location. While all manifolds and filters are in a centralized location
- More room to perform regular maintenance

Nitehawk Raptor 2

Elgin Crosswind1

- Both have multiple electrical panels
- Hydraulic hoses hidden in frame
- Less room in both to perform regular maintenance

Safety

R4

Center mounted cab/forward layout gives operator best visibility of:

- Road Surface
- Pedestrians
- Surrounding Traffic
- Ability to watch right & left gutter brooms at all times
- Sweep anywhere without changing seating positions and re-adjusting mirrors.

Elgin Crosswind1

Dual steering cab layout makes operator have to:

- change seating positions and re-adjust mirrors.

NiteHawk Raptor II

Dual steering layout makes operator have to: change seating positions and re-adjust mirrors.

Conclusion

- City Public Works staff recommends the purchase of the Global R4 Air Regenerative Street Sweeper.

- Video Links:
- https://www.youtube.com/watch?v=UOp_qxUISec
- https://www.youtube.com/watch?v=_IUT5yTL7Zo

- Safe, easy to maintain and efficient

PURCHASE ORDER

VENDOR NAME & ADDRESS:			SHIP TO NAME & ADDRESS:		
Western Systems 911 N. Thierman Rd. Spokane Valley, WA, 99212 (509) 922-1300			City of Shelton 1000 West Pine Street Shelton, WA 98584		
P.O. #	**P.O. DATE**	**REQUISTIONER**	**SHIP VIA**	**F.O.B. POINT**	**TERMS**
21-019	3/24/21	Kalin Somero			
QTY	**UNIT**	**DESCRIPTION**	**BARS #**	**UNIT PRICE**	**TOTAL**
1		R4 Regenerative Air Type Sweeper	503-300-000-59448-6400	285,328.80	285,328.80
					0.00
					0.00
					0.00
					0.00
PURCHASE JUSTIFICATION				**SHIPPING**	
Adding this Vacuum type sweeper to our fleet will help with the pickup of leaves, pine needles, fir cones, and other debris that our current sweeper struggles with. Having two sweepers will allow us to cover more area in a day and will give us the ability to have one down for maintenance or repair while the other is keeping the streets clean. The state contract number for this vendor is 02613.				**SUBTOTAL**	285,328.80
				Tax (8.8%)	25,108.93
APPROVING MANAGER				**TOTAL**	310,437.73

Enter this order in accordance with the prices, terms, delivery method, and specifications listed above.
Please notify the Department Contact immediately if you are unable to ship as specified.

Please send a copy of your invoice attention of:

City of Shelton
Public Works Department
525 W. Cota Street
Shelton, WA 98584

2021 New Budget Request

New Project / Program or Capital Purchase

Department:	EM&R
Author:	Mike Albaugh

Funding Priority: 1

Title: New Vacuum Style Street Sweeper

Budget request to purchase a new street sweeper. The current EM&R street sweeper is over eleven years old and showing signs wear and deficient operation. Street sweeping is a vital function for maintaining safety, storm water quality, and aesthetics throughout the City. A new vacuum style street sweeper will provide for more efficient operation and decrease repair and maintenance costs.

Expenditures

Category	Description	2021 Requested Funding
503-300-000-59448-6400	Capital Expenditure-equipment/vehicles	$315,000.00
Total Expenditures		**$315,000.00**

Revenue

List all known and/or anticipated sources of revenue. If this is a utility project, what amount and percent of the project will be financed through rates? If this is an equipment purchase, is it replacement? What will happen to the old asset? Trade-in (provide documentation of value)? Disposal? Re-use? Please include the affect of that here.

Anticipated/Proposed Funding Source	Special Considerations	2021 Anticipated/ Proposed Funding
Total Revenue		

Comments/Additional Information

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item E5)

Touch Date: 03/31/2021
Brief Date: 04/06/2021
Action Date: 04/20/2021

Department: Engineering

Presented By: Ken Gill, City Engineer

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:		**REVIEWED:**
☒	Dept. Head	JOH
☐	Finance Director	
☐	Attorney	
☒	City Clerk	
☐	City Manager	

PROGRAM/PROJECT TITLE:
Streamflow Restoration Planning

ATTACHMENTS:
- PowerPoint Presentation-WRIA 14 Plan Presentation for Local Review
-Watershed Restoration and Enhancement Plan for WRIA 14 Kennedy/Goldsborough Watershed
-Resolution No. 1193-0421

☐	Ordinance
☒	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

In January 2018, the Legislature passed the streamflow restoration law (RCW 90.94) that helps restore streamflows to levels necessary to support robust, healthy, and sustainable salmon populations while providing water for homes in rural Washington. The law was in response to the Hirst decision, a 2016 Washington State Supreme Court decision that limited a landowner's ability to get a building permit for a new home when the proposed source of water was a permit-exempt well.

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. Shelton has participated in the planning group for the Water Resource Inventory Area (WRIA) 14 Kennedy/Goldsborough Watershed Restoration and Enhancement Committee since October 31, 2018.

The Watershed Restoration and Enhancement Plan for WRIA 14 Kennedy/Goldsborough Watershed is available at https://ecology.wa.gov/Water-Shorelines/Water-supply/Streamflow-restoration/Streamflow-restoration-planning and attached.

ANALYSIS/OPTIONS/ALTERNATIVES:

N/A

BUDGET/FISCAL INFORMATION:

N/A

PUBLIC INFORMATION REQUIREMENTS:

N/A

STAFF RECOMMENDATION/MOTION:

"I move to place Resolution No. 1193-0421 on the April 20th, 2021 action agenda."

Streamflow Restoration Planning

Ken Gill

WRIA 14 Watershed Restoration and Enhancement Plan

April 6th and 20th, 2021

DEPARTMENT OF ECOLOGY
State of Washington

Streamflow Restoration law
RCW 90.94

- Clarifies how local governments can issue building permits for homes intending to use a permit-exempt well for their domestic water supply **and offsets those impacts through a local watershed planning effort** .

- Ecology chaired the WRIA 14 Committee, composed of tribes, counties, cities, WDFW, municipal water purveyor, and interest groups. The committee met over the last two years to develop the Watershed Restoration and Enhancement Plan.

Watershed Restoration and Enhancement Plan Components

Planning Horizon

2018 - 2038

WRIA Subbasin Delineation

8 subbasins

Projected New Permit-Exempt Wells

4,294 Projected New Permit-Exempt Wells

Estimated Consumptive Use

759 acre-feet per year (1.04 cfs) – most likely estimate
1,034 acre-feet per year (1.43 cfs) – goal to achieve through adaptive management

Projects and Actions

to offset estimated consumptive use and meet Net Ecological Benefit (NEB)

Presentation Outline

1. Background
2. Streamflow Restoration Law
3. Role of the Committee
4. Elements of the Watershed Plan
5. Steps to complete Plan

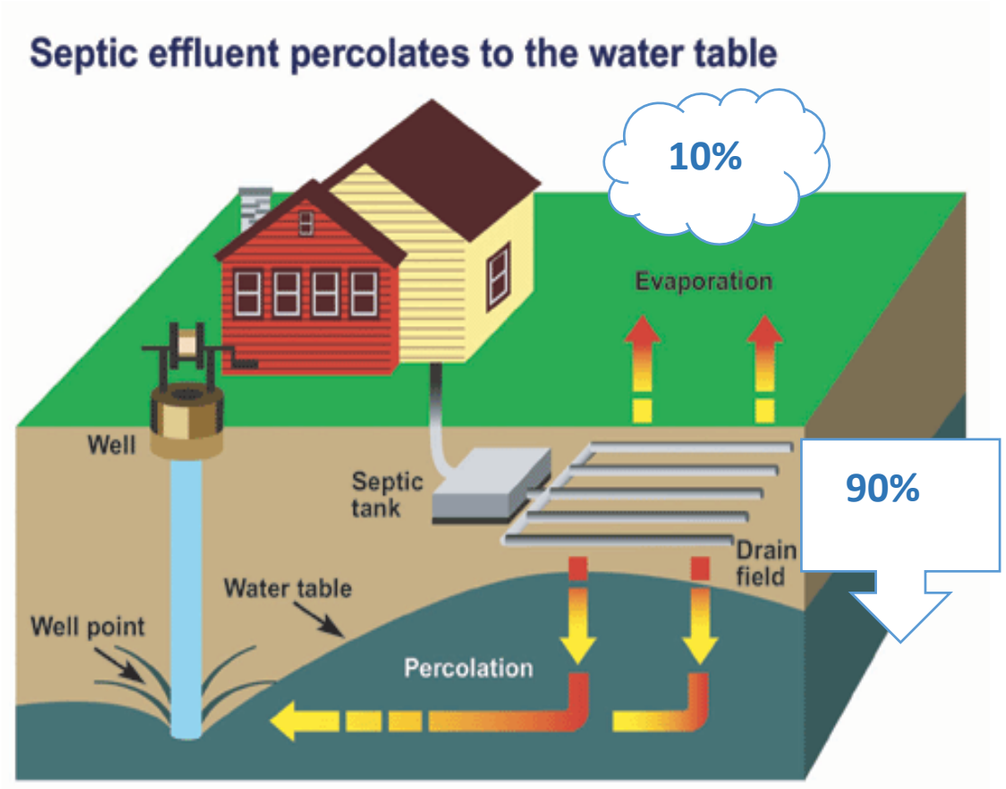
What is a permit-exempt domestic well?

- Serve single homes, small developments, irrigation of small lawns and gardens
- Chapter 90.94 RCW establishes withdrawal limits for permit-exempt domestic well connections in this watershed

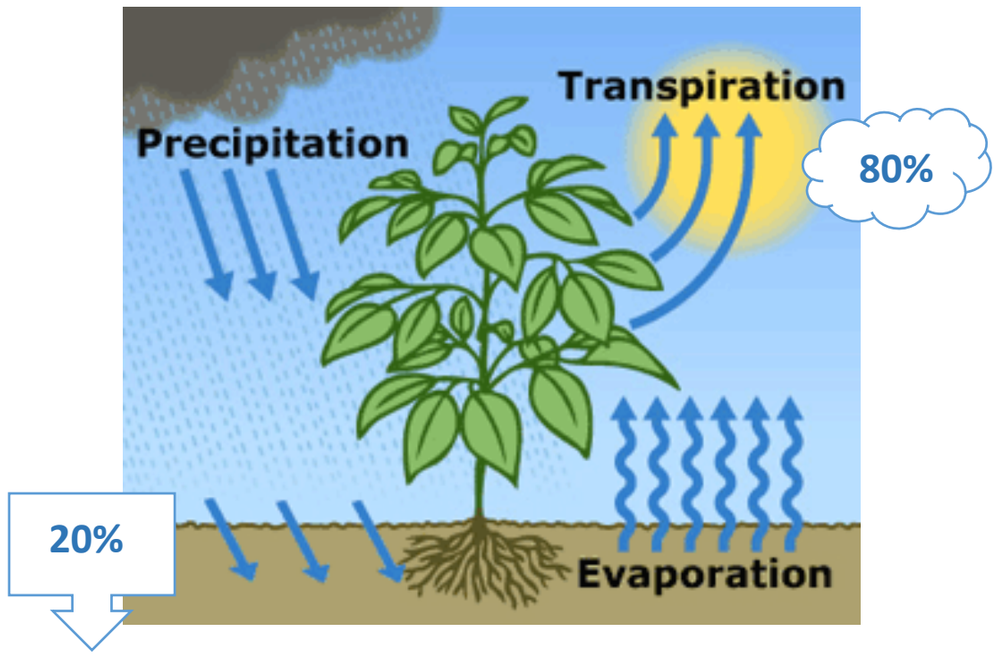
What is consumptive water use?

Water that is evaporated, transpired, consumed by humans, or otherwise removed from an immediate water environment due to the use of new permit-exempt domestic wells.

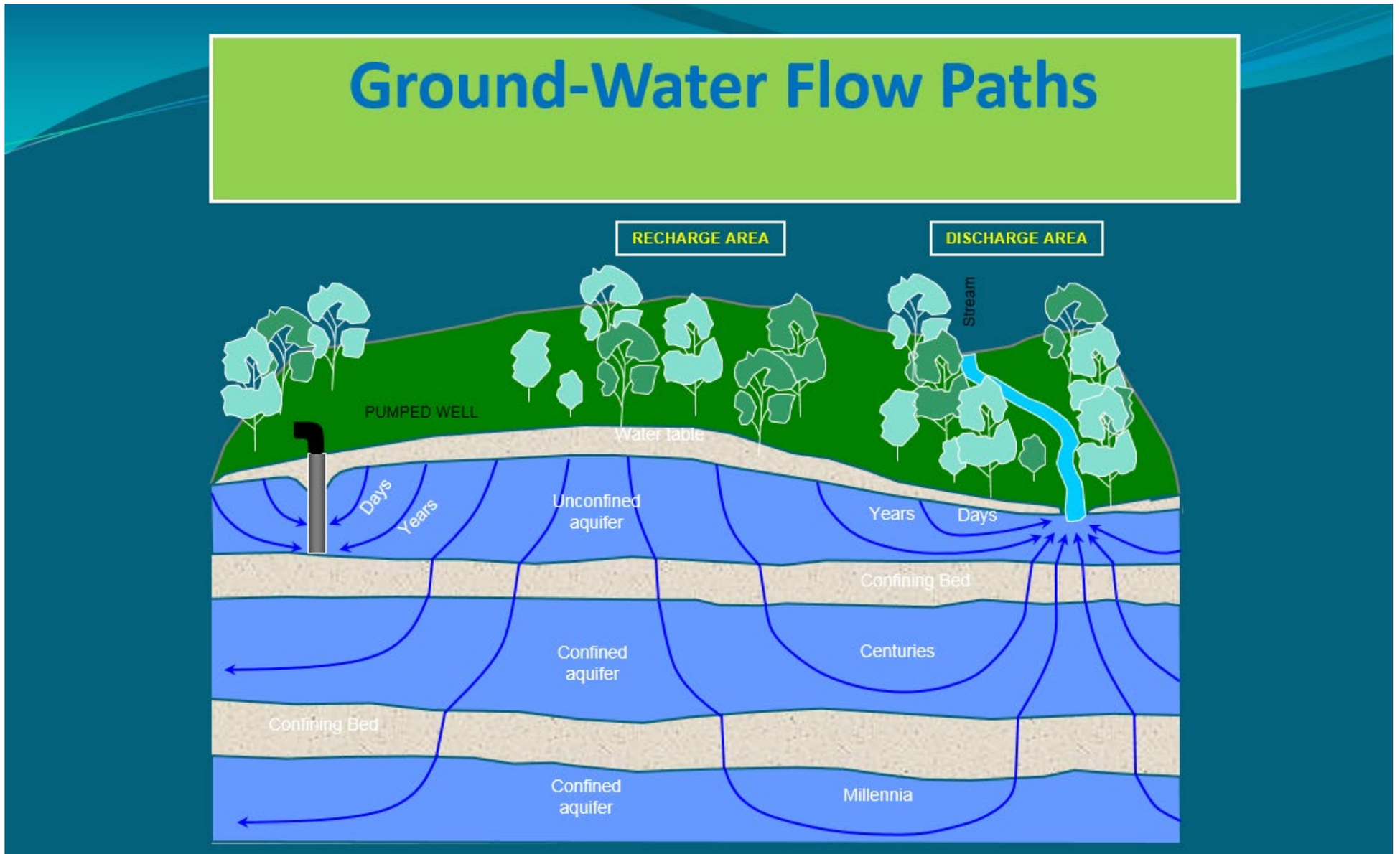
Indoor Consumptive Use



Outdoor Consumptive Use

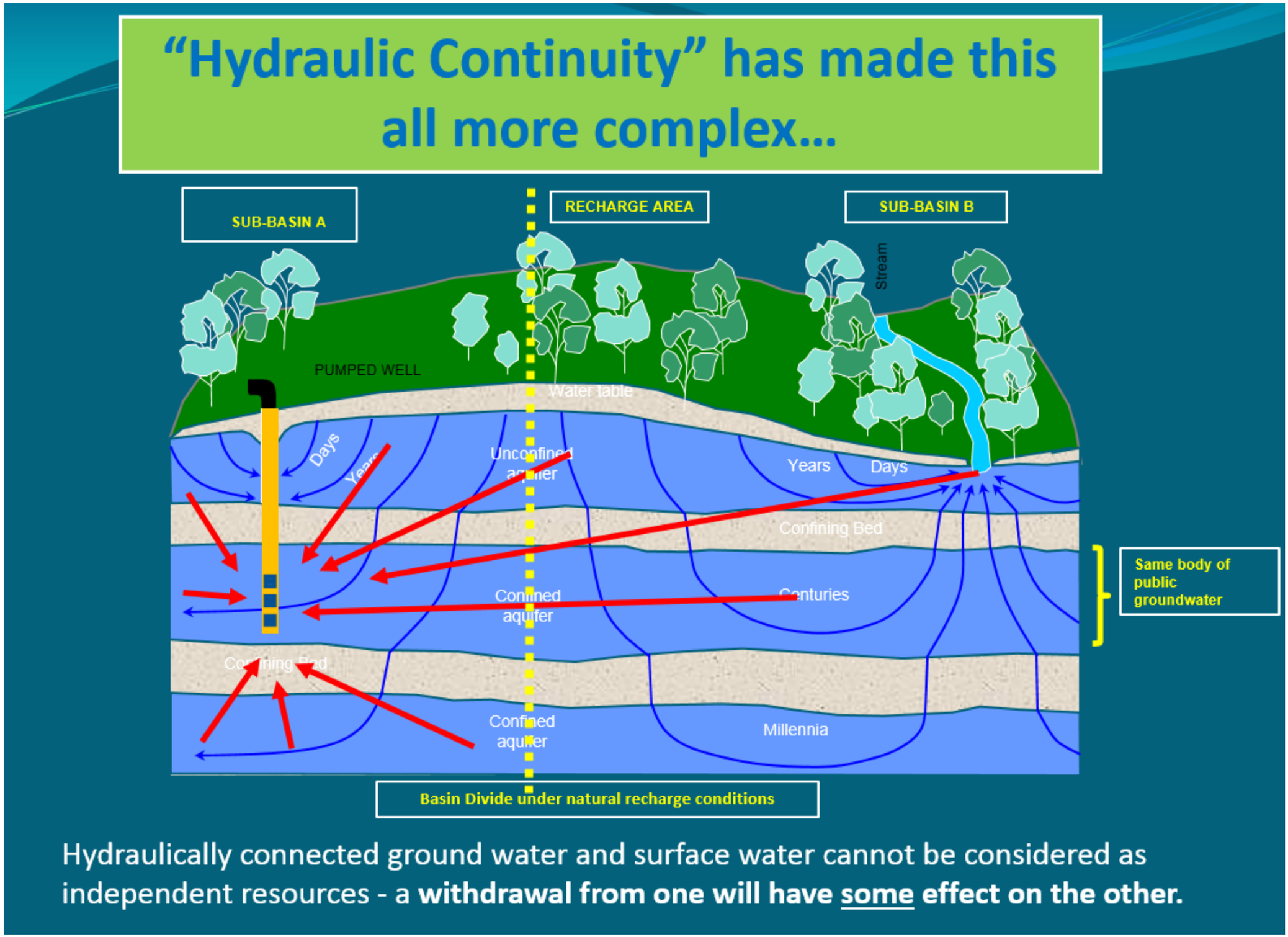


How are groundwater and streamflows connected?



Ground-water flow paths vary greatly in length, depth, and travel time from points of recharge to points of discharge in the ground-water system

How do wells affect streamflows?

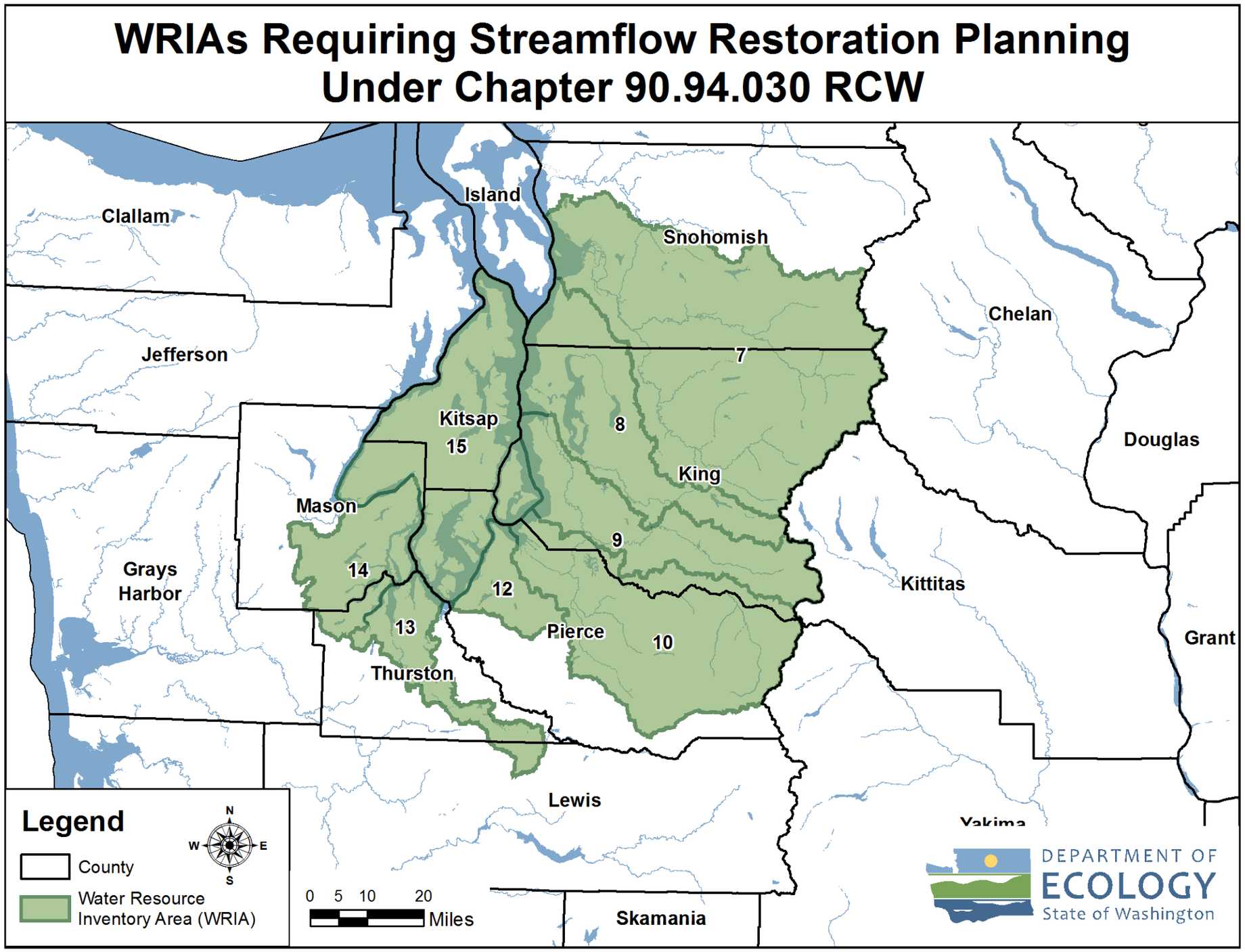


Hydraulically connected ground water and surface water cannot be considered as independent resources - a **withdrawal from one will have <u>some</u> effect on the other.**

Streamflow Restoration Law RCW 90.94

Clarifies how local governments can issue building permits for homes intending to use a permit-exempt well for their domestic water supply **and offsets those impacts through a local watershed planning effort.**

Streamflow Restoration Planning Map



Overview of the Watershed Plan

1 **QUANTIFY EXPECTED CONSUMPTIVE WATER USE OVER 20 YEARS**

DEPARTMENT OF ECOLOGY
State of Washington

2 **IDENTIFY WHERE IT IS POSSIBLE TO OFFSET**

FIRST PRIORITY

for *in* *and*

SECOND PRIORITY

for ≠

and/or

for ≠

AND

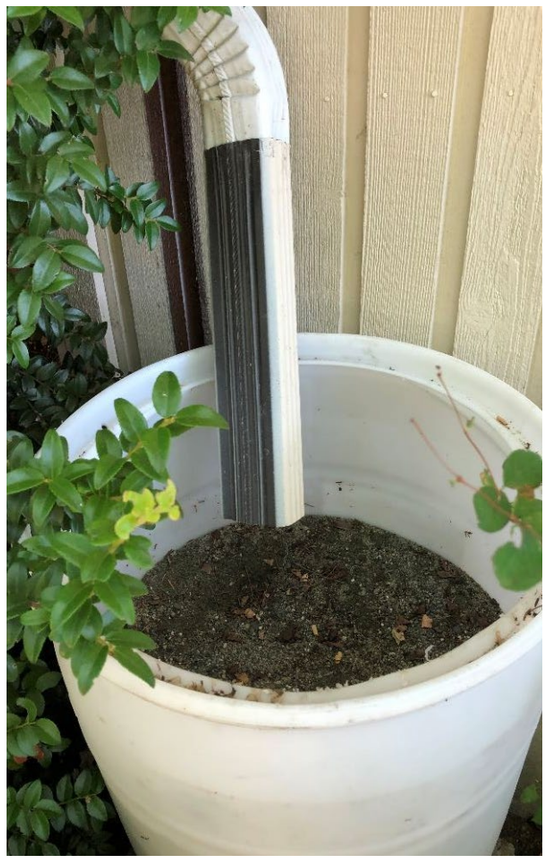
Projects that enhance

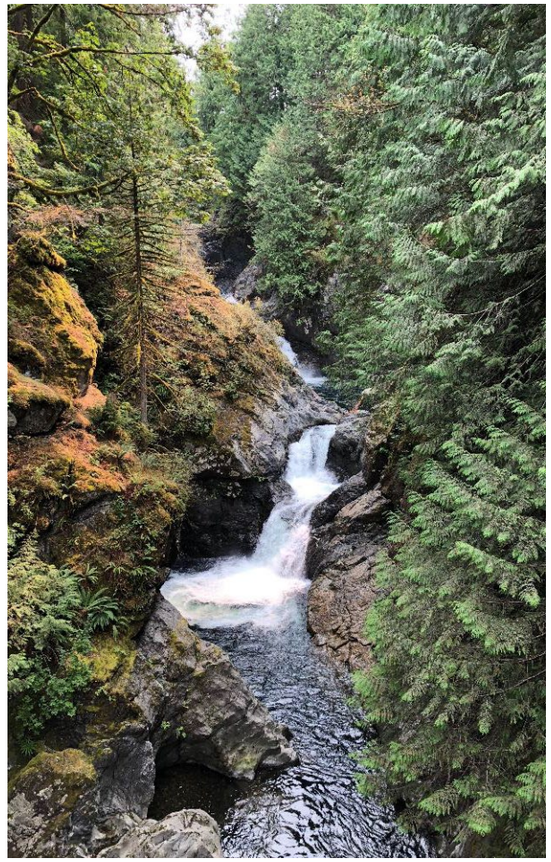
and/or

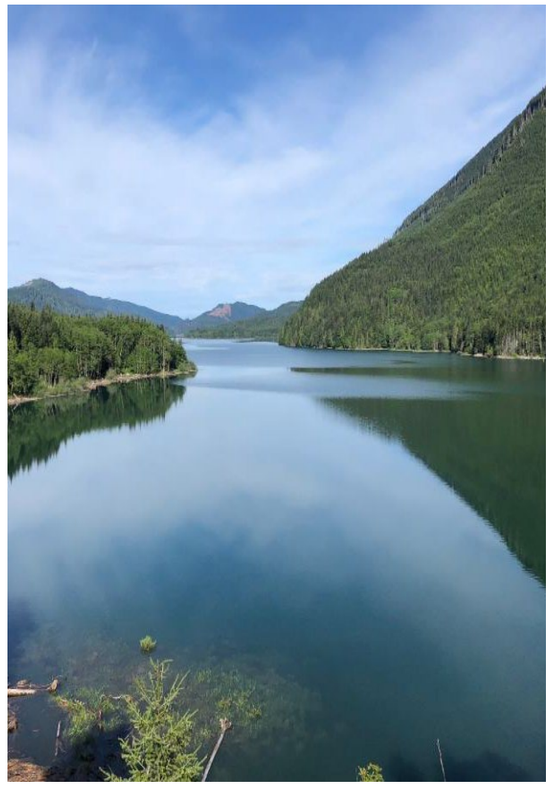
3 **ECOLOGY MUST EVALUATE:** *DOES THIS PLAN HAVE A NET ECOLOGICAL BENEFIT?*

What is offset?

The anticipated ability of a project or action to counterbalance some amount of
the new consumptive water use over the next 20 years (2018-2038).







What is Net Ecological Benefit (NEB)?

From Ecology's Final NEB Guidance

"…local planning groups are best situated, and will therefore determine the appropriate amount of benefits beyond the offsetting of projected impacts …"

Watershed Restoration and Enhancement Committee

Entity Name	**Representing**
Skokomish Tribe	Tribal government
Squaxin Island Tribe	Tribal government
Mason County	County government
Thurston County	County government
City of Shelton	City government
Mason County Public Utility District 1	Water purveyor
Washington Department of Fish and Wildlife	State agency
Washington Department of Ecology	State agency
Building Industry Association of Washington	Residential construction industry
Washington State Chapter of the Sierra Club	Environmental interests
Mason-Kitsap Farm Bureau	Agricultural interests
Mason Conservation District	Ex-officio
Washington State Department of Health	Ex-officio
Green Diamond	Ex-officio

What is the Committee's role?

Committee

- Develops Watershed Plan
- Approves Plan

Ecology

- Determines NEB
- Adopts Plan

Watershed Restoration and Enhancement Plan Components

Planning Horizon

2018 - 2038

WRIA Subbasin Delineation

8 subbasins

Projected New Permit-Exempt Wells

4,294 Projected New Permit-Exempt Wells

Estimated Consumptive Use

759 acre-feet per year (1.04 cfs) – most likely estimate
1,034 acre-feet per year (1.43 cfs) – goal to achieve through adaptive management

Projects and Actions

to offset estimated consumptive use and meet Net Ecological Benefit (NEB)

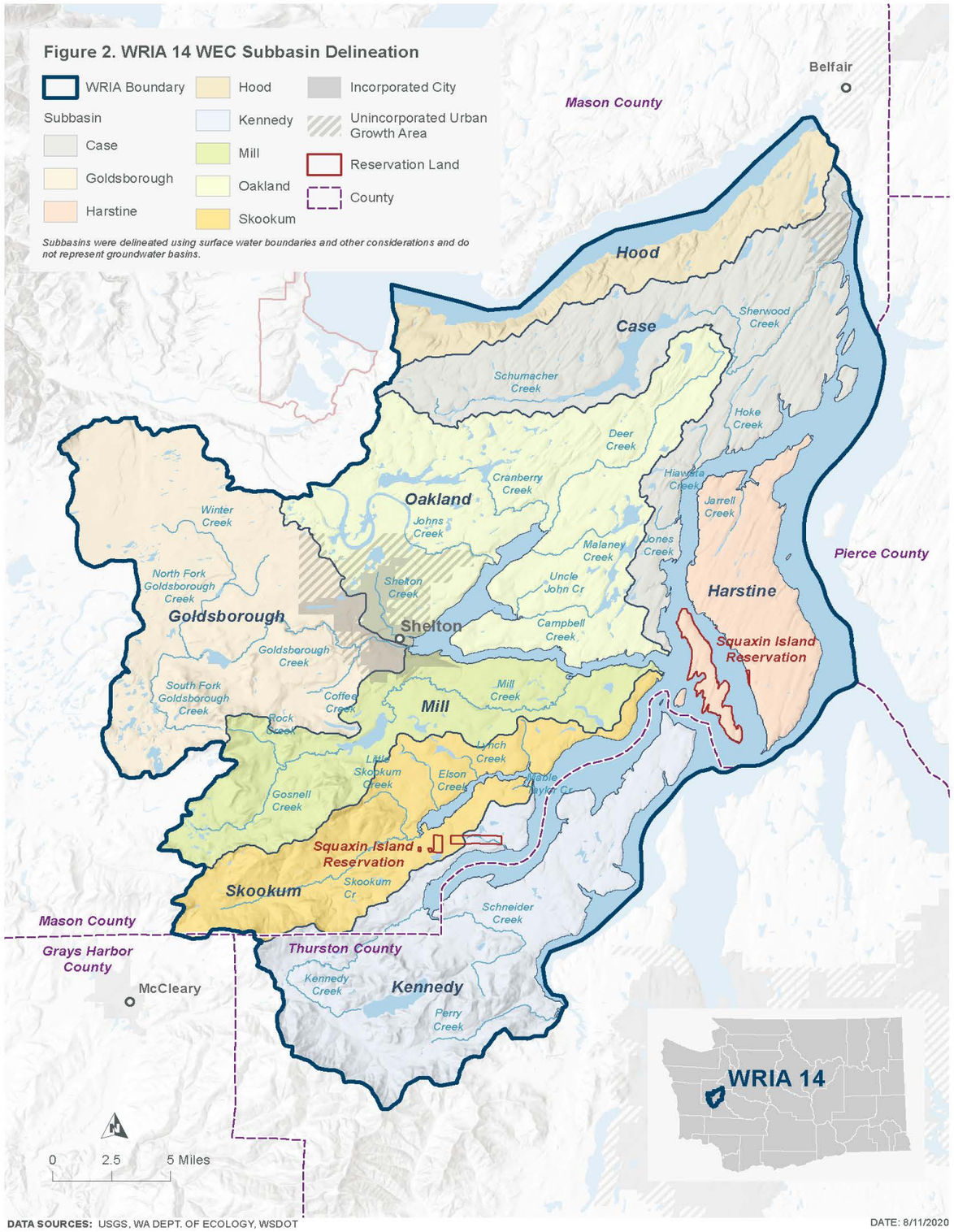
Policy and Adaptive Management

recommendations that contribute to the goal of streamflow restoration

Delineate Subbasins

- The WRIA 14 Committee divided WRIA 14 into 8 subbasins for the purposes of assessing consumptive use and project offsets.

Subbasin Delineation Map



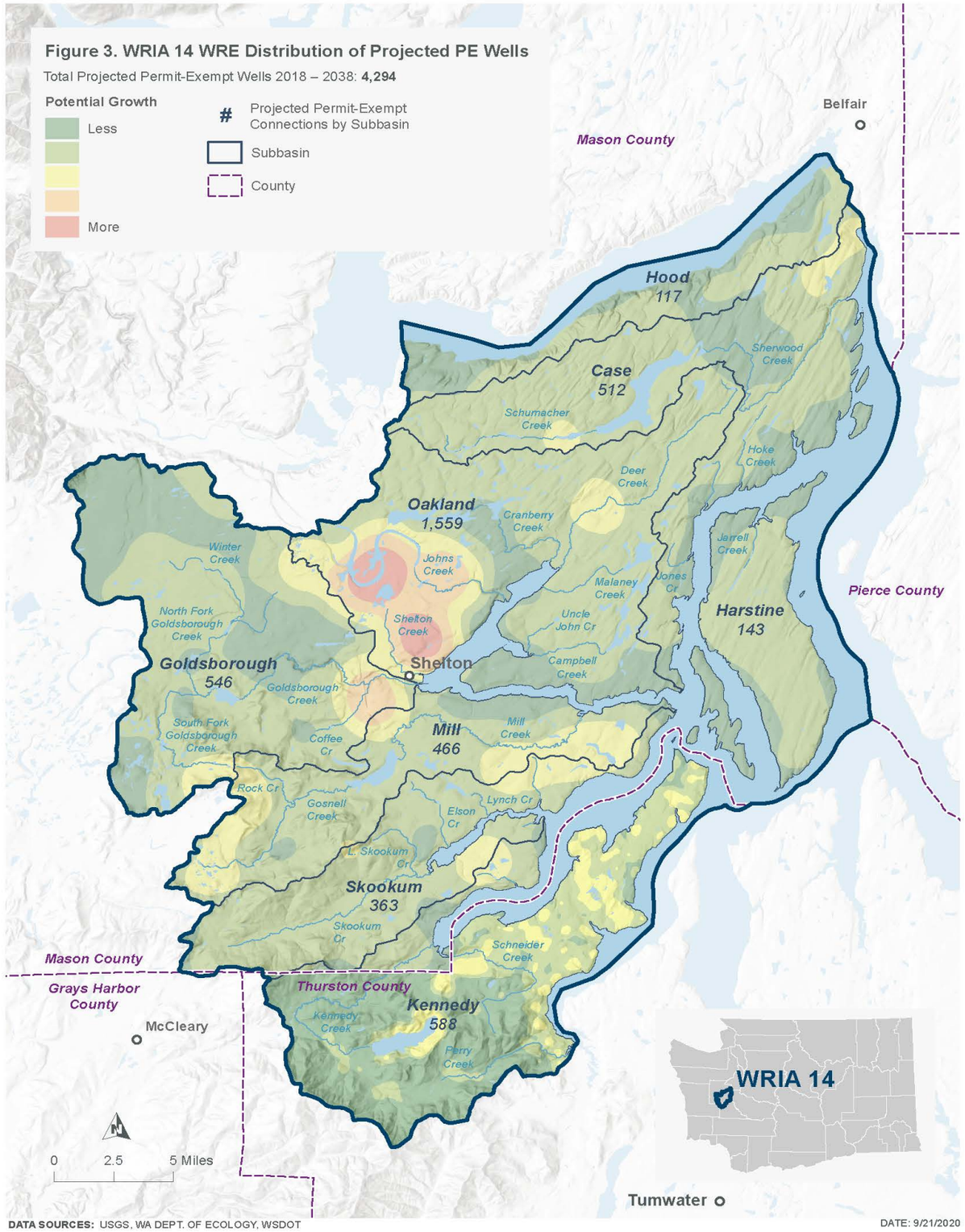
Project New Permit-Exempt Wells

- The WRIA 14 Committee projects 4,294 PE wells over the planning horizon. The largest number of these wells are likely to be installed in the Oakland Bay subbasin.

Projected New Permit-Exempt Wells

Subbasin	Projected PE Wells
Case	512
Goldsborough	546
Harstine	143
Hood	117
Kennedy (Mason County)	59
Kennedy (Thurston County)	529
Mill	466
Oakland	1,559
Skookum	363
Totals	**4,294**

New Permit-Exempt Wells Map



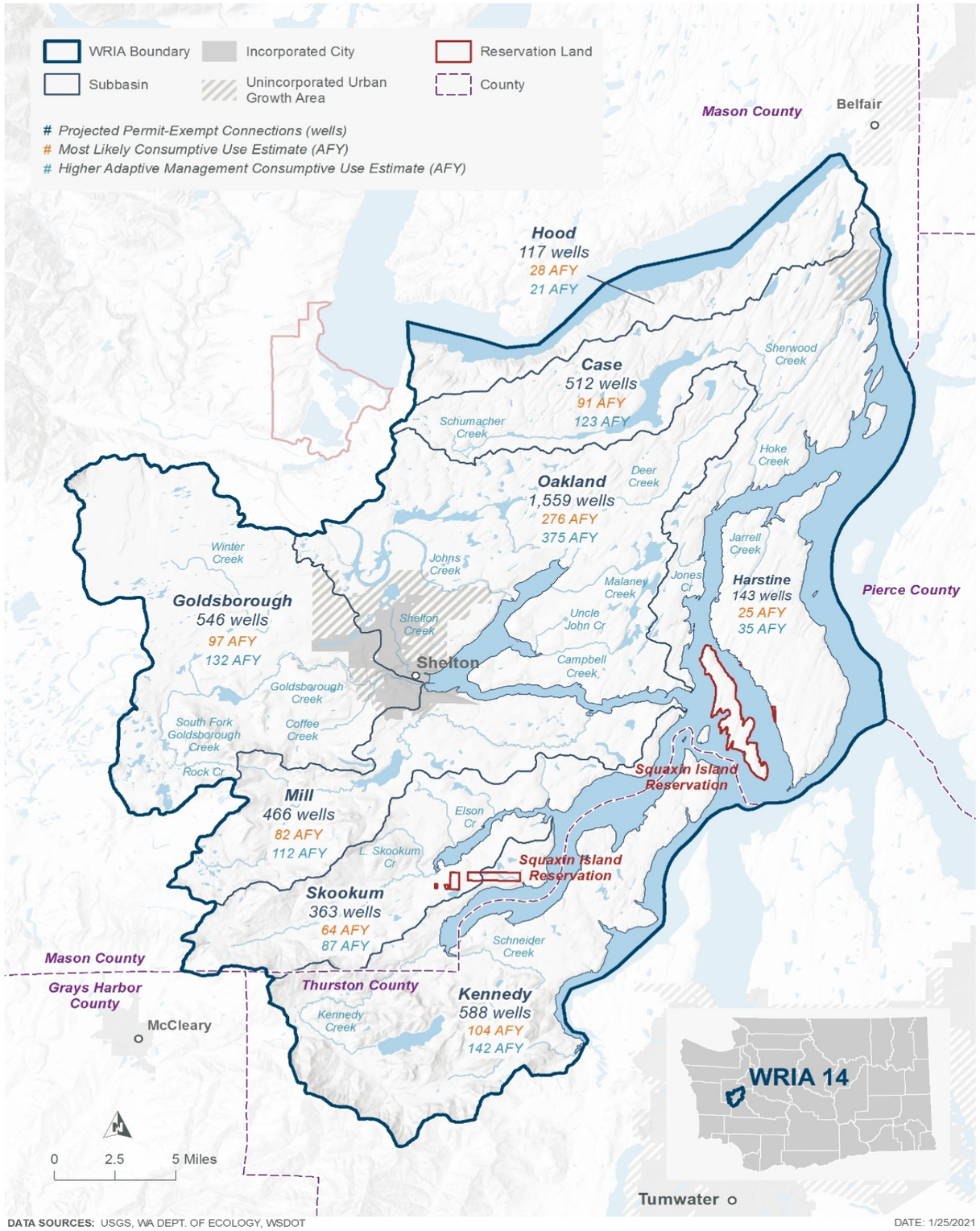
Estimate New Consumptive Water Use

- The WRIA 14 Committee used a 20-year projection for WRIA 14 of new PE wells to estimate the consumptive water use that this watershed plan must address and offset. The WRIA 14 Committee estimates 759 AF per year (1.04 cfs) of new consumptive water use in WRIA 14 as the “most likely” estimate.
- The Committee also included a higher estimate to achieve through adaptive management of 1,034 AF per year (1.43 cfs)

Estimated New Consumptive Water Use

			Assumed Irrigated Acreage of 0.10 Acre (Most Likely Estimate)		Assumed Irrigated Acreage of 0.14 Acre (Higher Adaptive Management Goal)	
Subbasin	Projected PE wells	Indoor CU (AF/year)	Outdoor CU (AF/year)	Total CU/year (AF/year) in 2038	Outdoor CU (AF/year)	Total CU/year (AF/year) in 2038
Case	512	8.6	81.9	90.5	114.7	123.3
Goldsborough	546	9.2	87.4	96.5	122.3	131.5
Harstine	143	2.4	22.9	25.3	32.1	34.5
Hood	117	2.0	18.7	20.7	26.2	28.2
Kennedy	588	9.9	94.0	103.9	131.6	141.5
Mill	466	7.8	74.6	82.4	104.4	112.2
Oakland	1,559	26.2	249.4	275.6	349.2	375.4
Skookum	363	6.1	58.1	64.2	81.3	87.4
TOTAL	**4,294**	**72**	**687**	**759.2**	**962**	**1,034.0**

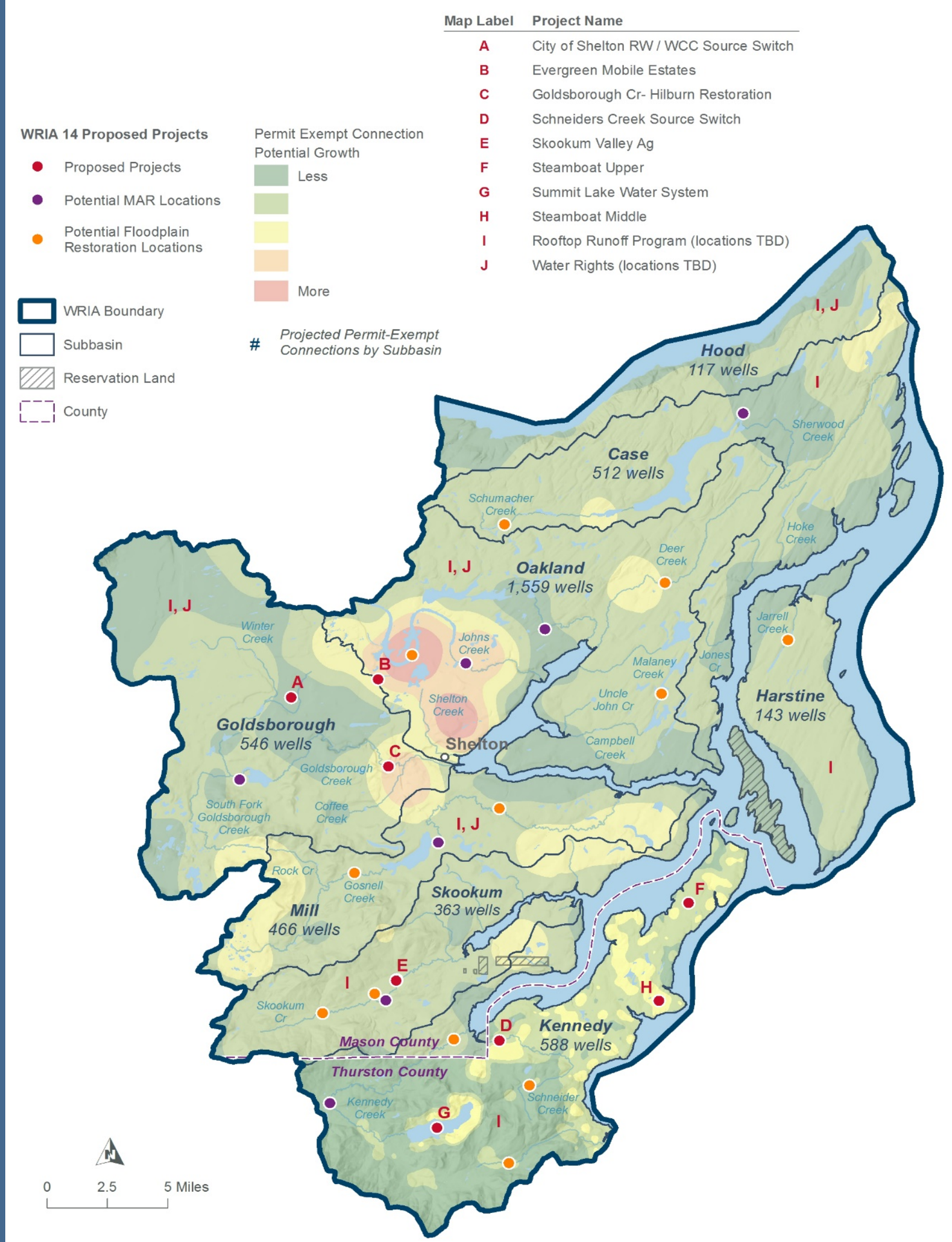
New Consumptive Water Use Map



Types of Projects & Actions

- Water Right Acquisition Offset Projects
- Non-Acquisition Water Offset Projects
- Habitat and Other Related Projects
- Regulatory Action Recommendations

Projects Overview Map



WRIA 14 Water Offset Projects
(Category I)

- City of Shelton Reclaimed Water/ WCC Source Switch
  - Redirect North Shelton wastewater to WRP and infiltrate Class A reclaimed water at existing spray field near the WCC
  - Subbasin: Goldsborough
- Evergreen Mobile Estates
  - Water system consolidation and water right acquisition
  - Subbasin: Oakland
- Steamboat Middle
  - Expanded water storage in an existing wetland
  - Subbasin: Kennedy
- Managed Aquifer Recharge
  - Categorical project that will include potential site locations in priority subbasins
  - Subbasins: Case, Mill, Kennedy, Goldsborough, Oakland, Skookum
- Water Right Acquisition Opportunities
  - Categorical project that includes potential opportunities for water right acquisitions in priority subbasins
  - Subbasins: Goldsborough, Hood, Mill, Oakland

WRIA 14 Habitat/Non-offset Projects

- Skookum Valley Ag
  - Channel re-alignment to increase channel length and sinuosity
  - Subbasin: Skookum
- Skookum Valley Railroad Culvert Crossings
  - Restore fish passage at several existing barriers
  - Subbasin: Skookum
- Goldsborough Creek-Hilburn Restoration
  - Priority project from Salmon Recovery 4YWP. Remove bank protection and channel fill, increase density of LWD.
  - Subbasin: Goldsborough
- Steamboat Upper
  - Increase ponded storage on north end of the Steamboat Peninsula
  - Subbasin: Kennedy

WRIA 14 Prospective Projects

- Other Water Right Opportunities and Efficiency Projects
  - Investigate opportunities throughout WRIA 14 for water right acquisition or efficiency projects.
- Forest Stand Age
  - The committee is interested in voluntary projects throughout WRIA 14 that involve forest conservation, forest land acquisition, carbon sequestration that can be demonstrated to have a streamflow benefit.
- Floodplain Restoration
  - The committee is interested in restoring stream floodplain function, where appropriate throughout WRIA 14.
- Summit Lake Alternative Water Supply
  - This project in the Kennedy subbasin conceptually project involves determining alternative solutions for safe water supply to the Summit Lake community. There is a potential for water offset but the project is currently too conceptual.
- Schneider Creek Source Switch
  - This project in the Kennedy subbasin would involve a source switch from surface water to groundwater. There is potential for water offset but the project currently conflicts with the Foster Supreme Court Decision and would only be implemented pending legislative changes to allow for such projects to move forward.
- Mason County Rooftop Runoff Program
  - This project would implement a new county requirement WRIA-wide for new rural residential building to install LID BMPs that infiltrate over 95% of rooftop runoff. There is potential for water offset but Mason County is not moving forward with the project at this time due to regulatory constraints.

Water Offset Projects

Project Type	Project Name	Project Description	Subbasin	Estimated Water Offset (AFY)	Offset Claimed by WRIA 14 Committee (AFY)
Category I	City of Shelton RW/ WCC Source Switch	Re-direct North Shelton wastewater to WRP and infiltrate Class A reclaimed water at existing spray field near the WCC	Goldsborough	486	486
Category I	Evergreen Mobile Estates	Water system consolidation and water right acquisition	Oakland Bay	7	7
Category I	MAR	Install managed aquifer recharge facilities	Multiple	910	273
Category I	Water Right Opportunities	A focused WRIA-wide analysis on potential WR efficiencies and acquisition for future studies and implementation	Goldsborough, Hood, Mill, Oakland	1,112	111
Category I	Steamboat Middle	Surface water retention and infiltration	Kennedy	14	14
Prospective	Schneider Creek Source Switch	Source switch from surface water ground water	Kennedy	64	0
Prospective	Summit Lake Water System	Future potential source switch for local domestic water supply	Kennedy	24-133	0
Prospective	Mason Co Rooftop Runoff	New county requirement for new rural residential building to install LID BMPs that infiltrate over 95% of rooftop runoff.	All	249	0
	WRIA 14 Total Water Offset for WRIA 14 Projects			**2,866-2,975**	**891**
	WRIA 14 Consumptive Use Estimate			**759**	
	WRIA 14 Higher Adaptive Management Consumptive Use Goal			**1,034**	

Policy and Adaptive Management Recommendations

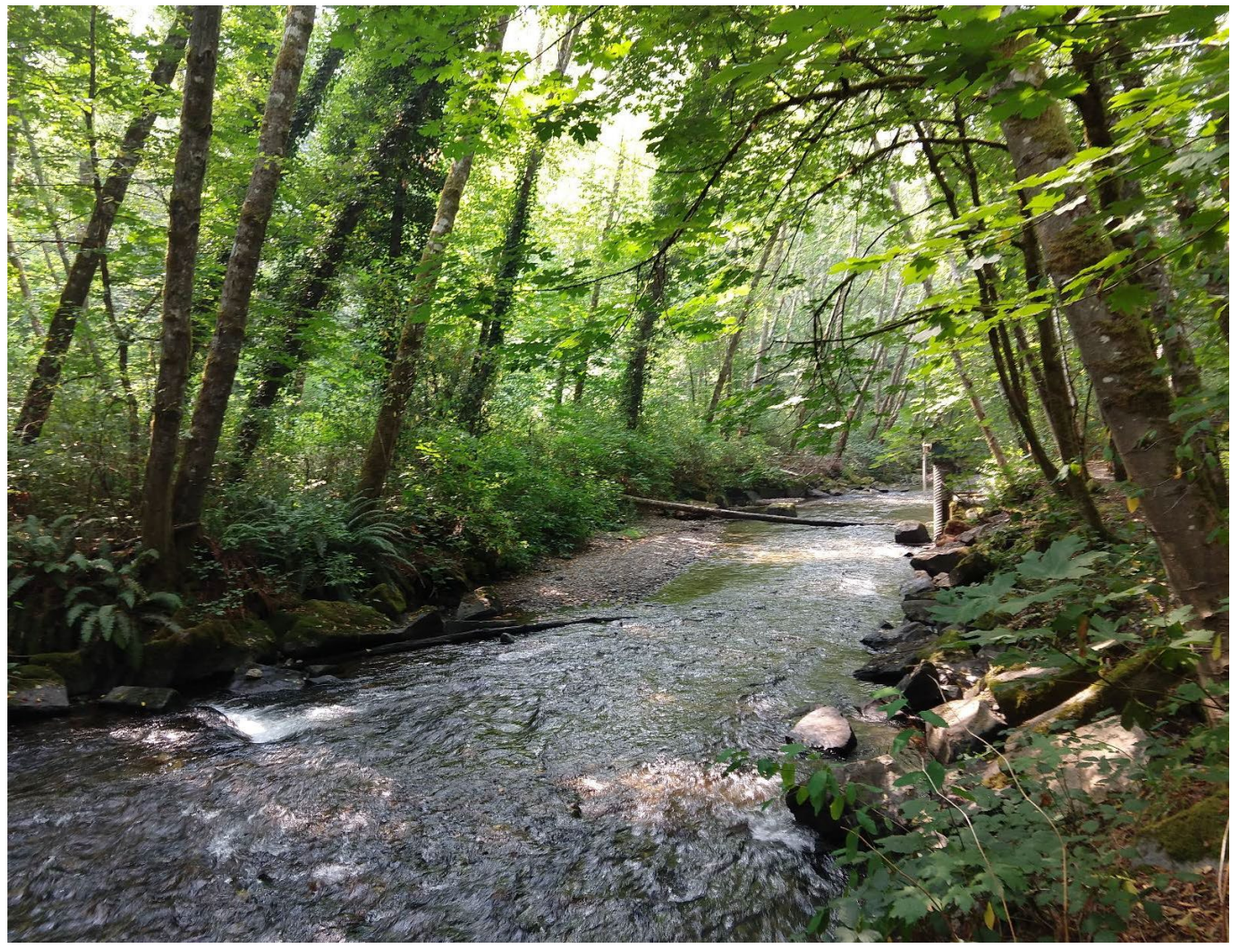
- As recommended by the NEB Guidance, the Committee prepared the watershed plan with implementation in mind. However, as articulated in the Streamflow Restoration Policy and Interpretive Statement (POL-2094), “RCW 90.94.020 and 90.94.030 do not create an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented."

WRIA 14 Policy and Regulatory Recommendations

- Track the number and location of permit -exempt wells
- Monitoring and Research
- Revolving Loan and Grant Fund for Community Water Systems
- Mason County-Wide Conservation Outreach Program
- Water Supply Data for Comprehensive Water Planning
- Sports Field Irrigation Conservation
- Group A Water System Conservation through Infrastructure Improvements
- Funding for Plan Implementation
- Waterwise Landscaping

Plan Implementation and Adaptive Management

- The WRIA14 Committee supports an adaptive management process for implementation of the WRIA 14 Watershed Plan. Adaptive management will help address uncertainty and provide more reasonable assurance for plan implementation.



Plan Implementation and Adaptive Management Recommendations

- Project, Policy and Permit -Exempt Well Tracking
- Reporting and Adaptation
- Funding

Steps to Complete the Plan

- Committee members meet (virtually) for the final vote on the plan in mid-April.

- If all members of the Committee **approve** the plan, the Committee chair will submit the plan to Ecology for review and NEB determination.

- If the Committee **does not approve the plan**, Ecology will prepare the plan. Ecology will send the plan to the Salmon Recovery Funding Board for technical Review. Ecology will then finalize the plan and the Director shall initiate rulemaking.

Post Plan Submission

- SEPA public comment period
- No changes to plan after submission
- Ecology will review plan
- Ecology will determine action by June 30, 2021

Thank you for your time!

Any questions?

Ecology's Policy Interpretation

- More information on the Streamflow Restoration law can be found online

DEPARTMENT OF ECOLOGY
State of Washington

POL-2094

DEPARTMENT OF ECOLOGY WATER RESOURCES PROGRAM
POLICY AND INTERPRETIVE STATEMENT

STREAMFLOW RESTORATION POLICY AND INTERPRETIVE STATEMENT

Effective Date:	07/31/2019
Contact:	Program Development and Operations Support
References:	*Statute:* Chapters 18.104, 34.05, 90.03, 90.82, and 90.94 RCW; RCW 19.27.097, 43.83B.405, 89.08.460, and 90.44.050 *Administrative Rule:* Chapters 173-500, 173-531A, 173-563, and 173-566 WAC.
Purpose:	To ensure consistency, conformity with state law, and transparency in the implementation of chapters 19.27 and 90.94 RCW.
Application:	This policy applies to the evaluation of building permit applications under RCW 19.27.097 and the implementation of activities authorized under chapter 90.94 RCW.

This policy supersedes any previous policy statement with which it conflicts.

Ecology's NEB Guidance

- More information on the Final Guidance for Determining Net Ecological Benefit can be found online

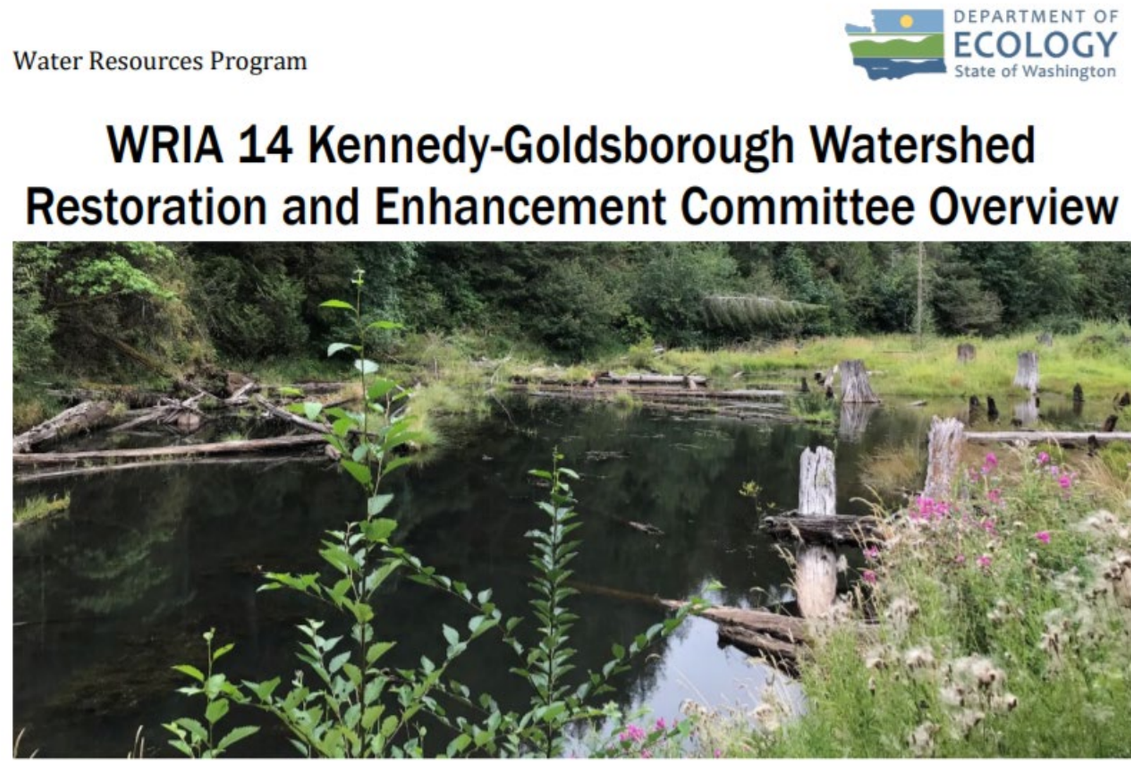
Final Guidance for
Determining Net Ecological Benefit

GUID-2094 Water Resources Program Guidance

July 31, 2019
Publication 19-11-079

WRIA 14 Committee Brochure

- More information on WRIA 14 Committee can be found online



Water Resources Program

DEPARTMENT OF ECOLOGY State of Washington

WRIA 14 Kennedy-Goldsborough Watershed Restoration and Enhancement Committee Overview

More information
Visit the Streamflow Restoration webpage[1].

Contact information
Angela Johnson
Committee Chair
angela.johnson@ecy.wa.gov
360-407-6668

Background

In January 2018, the Legislature passed the Streamflow Restoration law to help restore streamflow levels. Its purpose is to support robust, healthy, and sustainable salmon populations while providing water for homes in rural Washington.

The law calls for local watershed planning and project implementation that improve streamflows. The Department of Ecology funds implementation through its competitive grant program[2].

Grants Guidance Overview

DEPARTMENT OF ECOLOGY
State of Washington

DEPARTMENT OF ECOLOGY
State of Washington

Watershed Restoration and Enhancement Plan

WRIA 14
Kennedy - Goldsborough Watershed

Final Draft Plan
February 3, 2021

Publication Information

This document is available on the Department of Ecology's website at:
https://ecology.wa.gov/Water-Shorelines/Water-supply/Streamflow-restoration/Streamflow-restoration-planning

Cover photo credit: Confluence of the old mouth of Coffee Creek and Goldsborough Creek, Allison Cook (Washington Department of Fish and Wildlife)

Contact Information

Water Resources Program

Address: 300 Desmond Drive, SE, Lacey, WA 98503
Phone: 360-407-6859
Website[1]: Washington State Department of Ecology

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To request these services, or to learn more about what we can provide, contact our Language Access Coordinators by phone at 360-407-6177 or email at millie.piazza@ecy.wa.gov. When you call, please allow a few moments for us to contact an interpreter. Visit Ecology's website for more information.

[1] www.ecology.wa.gov/contact

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Acknowledgements

This watershed plan was written as a collaboration between the Department of Ecology, the WRIA 14 Committee, and the technical consultants. We express our sincere gratitude to those that supported the development of the plan and supplemental materials.

WRIA 14 Committee Members – Primary Representatives and Alternates

Commissioner Kevin Shutty, Mason County

Commissioner Randy Neatherlin, Mason County

David Windom, Mason County

Joshua Cummings, Thurston County

Kaitlynn Nelson, Thurston County

Brad Murphy, Thurston County

Ken Gill, City of Shelton

Craig Gregory[1], City of Shelton

Jason Dose, City of Shelton

Brent Armstrong, City of Shelton

Mark Ziegler, City of Shelton

Alex Gouley, Skokomish Indian Tribe

Seth Book, Skokomish Indian Tribe

Dana Sarff, Skokomish Indian Tribe

Jeff Dickison, Squaxin Island Tribe

Paul Pickett, Squaxin Island Tribe

Commissioner Ron Gold, Mason County PUD #1

Darin Hall[1], Mason County PUD #1

Brandy Milroy, Mason County PUD #1

Kristen Masteller, Mason County PUD #1

James Reyes, Mason County PUD #1

Elaine Packard, Washington State Chapter Sierra Club

Lois Ward, Washington State Chapter Sierra Club

Shelley Spalding[2], Washington State Chapter Sierra Club

Marilyn Vogler[2], Washington State Chapter Sierra Club

Larry Boltz, Mason-Kitsap Farm Bureau

Paul Miller, Skokomish Valley Farms

Allison Cook, Department of Fish and Wildlife

Darrin Masters, Department of Fish and Wildlife

Tristan Weiss, Department of Fish and Wildlife

Megan Kernan, Department of Fish and Wildlife

Josie Cummings, Building Industry Association of Washington

Erin Hall[1], Olympia Master Builders[2]

John Bolender, Mason Conservation District, (ex officio)

Barbara Adkins, Mason Conservation District (ex officio)

Fern Schultz, Department of Health (ex officio)

Patti Case, Green Diamond (ex officio)

WRIA 14 Technical Consultant Team

Chad Wiseman, HDR

Peter Schwartzman, PGG

HDR, PGG, and Anchor QEA Support Staff

Facilitation Team

Susan Gulick, Sound Resolutions

Jimmy Kralj, ESA

Additional support from Cascadia Consulting staff

Department of Ecology Staff

Angela Johnson, Committee Chair

Tom Culhane, Lead Technical Support

Rebecca Brown, WRIA 14 Committee Support and Alternate Chair

Mike Noone, WRIA 14 Committee Support and Alternate Chair

Paulina Levy, Plan Development Support

Mike Gallagher, Regional Section Manager

Bennett Weinstein, Streamflow Restoration Section Manager

Streamflow Restoration Section Technical Staff

Southwest Region Water Resources Section

Technical and Project Workgroup

Angela Johnson, Department of Ecology

Tom Culhane, Department of Ecology

Jim Pacheco, Department of Ecology

Chad Wiseman, HDR

Peter Schwartzman, PGG

David Windom, Mason County

Kell Rowen, Mason County

Kaitlynn Nelson, Thurston County

Brad Murphy, Thurston County

Kevin Hansen, Thurston County

Ken Gill, City of Shelton

Craig Gregory[1], City of Shelton

Seth Book, Skokomish Indian Tribe

Dana Sarff, Skokomish Indian Tribe

Jon Turk, Aspect Consulting, representing Skokomish Indian Tribe

Paul Pickett, Squaxin Island Tribe

Erica Marbet, Squaxin Island Tribe

Darin Hall, Mason County PUD #1

James Reyes, Mason County PUD #1

Lois Ward, Washington Chapter Sierra Club

Shelley Spalding[2], Washington State Chapter Sierra Club

Marilyn Vogler[2], Washington State Chapter Sierra Club

Larry Boltz, Mason-Kitsap Farm Bureau

Allison Cook, Department of Fish and Wildlife

Darrin Masters, Department of Fish and Wildlife

Tristan Weiss, Department of Fish and Wildlife

Megan Kernan, Department of Fish and Wildlife

Erin Hall[1], Olympia Master Builders[2]

Barbara Adkins, Mason Conservation District (ex officio)

Steve Hagerty, WRIA 14 Lead Entity Coordinator, Mason Conservation District (ex officio)

Evan Bauder, Mason Conservation District (ex officio)

Fern Schultz, Department of Health (ex officio)

Patti Case, Green Diamond (ex officio)

Thank you to the Committee members that participated in short-term, ad hoc work groups.

Thank you also to Tribal, city and county staff, WDFW, DOH, and USGS for providing resources and presentations throughout this process.

[1]No longer with entity

[2]No longer on Committee

Executive Summary

In January 2018, the Washington State Legislature passed the Streamflow Restoration law (RCW 90.94) to help support robust, healthy, and sustainable salmon populations while ensuring rural communities have access to water. The law, directs the Department of Ecology to lead local planning Committees to develop Watershed Restoration and Enhancement Plans that identify projects to offset potential consumptive impacts of new permit-exempt domestic groundwater withdrawals on instream flows over the next 20 years (2018 – 2038) and provide a net ecological benefit to the watershed[2]. This Watershed Restoration and Enhancement Plan was written to meet the guidance and policy interpretations as provided by the Department of Ecology.

The Department of Ecology (Ecology) established the Watershed Restoration and Enhancement Committee to collaborate with tribes, counties, cities, state agencies, and special interest groups in the Kennedy-Goldsborough watershed, also known as Water Resource Inventory Area (WRIA) 14. The WRIA 14 Committee met for over 2 years to develop a watershed plan.

To allow for meaningful analysis of the relationship between new consumptive use and offsets, the WRIA 14 Committee divided the watershed into seven subbasins. Subbasins help describe the location and timing of projected new consumptive water use, the location and timing of impacts to instream resources, and the necessary scope, scale, and anticipated benefits of projects.

This watershed plan projects 4,294 permit exempt (PE) well connections over the 20-year planning horizon. The projects and actions in this watershed plan will address and offset the consumptive water use from those 4,294 PE well connections. The projected new consumptive water use associated with the new PE well connections is 759 acre-feet per year in WRIA 14, which the Committee determined to be the "most likely" estimate. This equates to 1.05 cubic feet per second (cfs) or 677,591 gallons per day (gpd). This watershed plan also presents a higher adaptive management goal for project implementation of 1,034 acre-feet per year (1.43 cfs or 923,096 gallons per day) in order to support streamflows.

This watershed plan includes projects that provide an anticipated offset of 891 acre-feet per year to benefit streamflows and enhance the watershed. Additional projects in the plan include benefits to fish and wildlife habitat, such as several thousand feet of streambed improvements, dozens of acres of restoration and protection, and many miles of riparian restoration across WRIA 14.

[2] Some members of the WRIA 14 Committee have different interpretations of RCW 90.94.030. Statements from entities and other documents provided in the Compendium provide more information on their interpretations, which apply throughout this plan.

The project offset benefits provide an estimated offset of 891 AFY and exceeds the “most likely” consumptive use estimate at the WRIA scale. The project offset benefits do not meet the higher adaptive management goal consumptive use estimate. At the subbasin scale, estimated offsets exceed both the “most likely” and higher adaptive management goal consumptive use estimates in the Goldsborough, and Hood, subbasins. Conversely, estimated offsets fall short of both the “most likely” and higher adaptive management goal consumptive use estimates in all other subbasins.

To increase the reasonable assurance for plan implementation and tracking progress, this watershed plan includes policy and regulatory recommendations and an adaptive management process. The nine policy and regulatory recommendations are included to contribute to the goals of this watershed plan, including streamflow restoration and meeting net ecological benefit. These recommendations enhance water conservation efforts; improve research, monitoring, and data collection; plan for better drought response; and finance plan implementation. The watershed plan describes an adaptive management approach, which identifies a lead organization to coordinate an ongoing implementation group to support implementation, a tracking and reporting structure to assess progress and make adjustments as needed, and a funding mechanism to adaptively manage implementation.

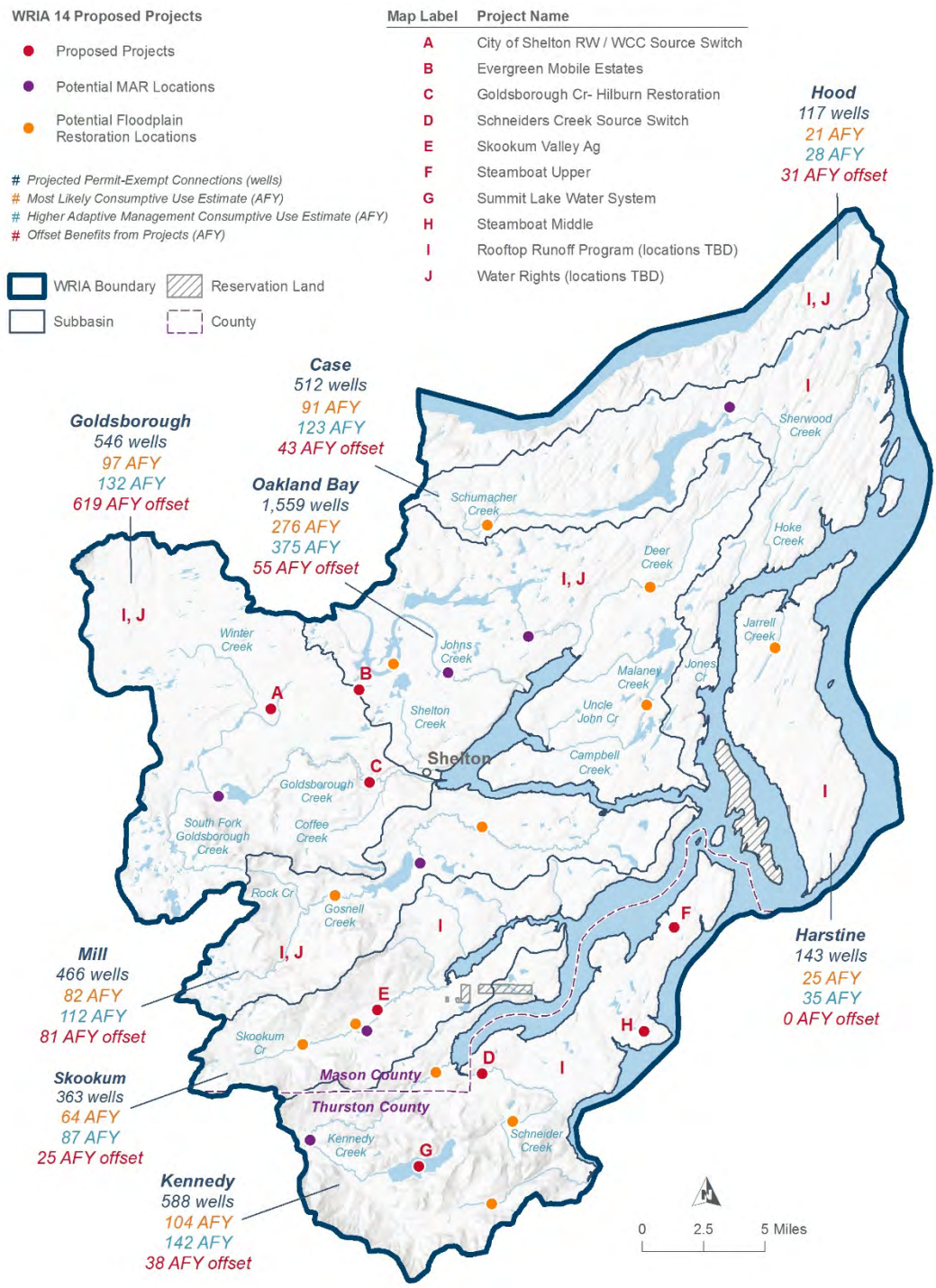


Figure ES 1: Summary of findings of the WRIA 14 Watershed Restoration and Enhancement Plan, including estimates for new domestic permit exempt well growth, consumptive use estimates, and project offset benefits.

Chapter One: Plan Overview

1.1 Plan Purpose and Structure

The purpose of the Water Resource Inventory Area (WRIA) 14 Watershed Restoration and Enhancement Plan is to identify projects and actions needed to offset the impacts of new domestic permit-exempt wells to streamflows. The watershed restoration and enhancement plan is one requirement of RCW 90.94. Watershed restoration and enhancement plans must identify projects to offset the potential consumptive impacts of new permit-exempt domestic groundwater withdrawals on instream flows over 20 years (2018-2038), and provide a net ecological benefit to the WRIA. The WRIA 14 watershed restoration and enhancement plan (watershed plan) considers priorities for salmon recovery and watershed recovery, while ensuring it meets the intent of the law.[3]

Pumping from wells can reduce groundwater discharge to springs and streams by capturing water that would otherwise have discharged naturally, reducing flows (Barlow and Leake 2012). Consumptive water use (that portion not returned to the aquifer) reduces streamflow, both seasonally and as average annual recharge. A well pumping from an aquifer connected to a surface water body can either reduce the quantity of water discharging to the river or increase the quantity of water leaking out of the river (Barlow and Leake 2012). Projects to offset consumptive use associated with permit-exempt domestic water use have become a focus to minimize future impacts to instream flows and restore streamflow.

While this watershed plan is narrow in scope and is not intended to address all water uses or related issues within the watershed, it provides a path forward for future water resource planning.

[Language to be included when appropriate]: The WRIA 14 Committee, by completing the watershed plan, has developed, and come to consensus[4] on, a path forward for a technically and politically complex issue in water resource management. That success sets the stage for improved coordination of water resources and overall watershed health in our WRIA.

This watershed plan is divided into the following chapters:

1. Plan Overview;
2. Overview of the plan purpose and scope, and plan development process, and streamflow;
3. Summary of the subbasins,

[3] Some members of the WRIA 14 Committee have different interpretations of RCW 90.94.030. Statements from entities and other documents provided in the Compendium provide more information on their interpretations, which apply throughout this plan.

[4] The levels of consensus used by the WRIA 14 Committee is described in the Operating Principles in Appendix D.

4. Growth projections and consumptive water use estimates;
5. Description of the recommended actions and projects identified to offset the future permit-exempt domestic water use in WRIA 14;
6. Explanation of recommended policy, monitoring, adaptive management and implementation measures; and
7. Evaluation and consideration of the net ecological benefits.

1.1.1 Legal and Regulatory Background for the WRIA 14 Watershed Restoration and Enhancement Plan

In January 2018, the Washington State Legislature passed Engrossed Substitute Senate Bill (ESSB) 6091 (session law 2018 c 1). This law was enacted in response to the State Supreme Court's 2016 decision in Whatcom County vs. Hirst, Futurewise, et al. (commonly referred to as the "Hirst decision"). As it relates to this Committee's work, the law, now primarily codified as RCW 90.94, clarifies how local governments can issue building permits or approve subdivisions for homes intending to use a permit-exempt well for their domestic water supply. The law also requires local watershed planning in fifteen WRIAs across the state, including WRIA 14.[5]

1.1.2 Domestic Permit-Exempt Wells

This watershed restoration and enhancement plan, RCW 90.94, and the Hirst decision are all concerned with the effects of new domestic permit-exempt water use on streamflows. Several laws pertain to the management of groundwater permit-exempt wells in WRIA 14 and are summarized in brief here for the purpose of providing context for the WRIA 14 watershed plan.

First and foremost, RCW 90.44.050, commonly referred to as "the Groundwater Permit Exemption," establishes that certain small withdrawals of groundwater are exempt from the state's water right permitting requirements, including small indoor and outdoor water use associated with homes. Although these withdrawals do not require a state water right permit, the water right is still legally established by the beneficial use. [6] Even though a water right

[5] ESSB 6091 includes the following: "*AN ACT Relating to ensuring that water is available to support development; amending RCW 19.27.097, 58.17.110, 90.03.247, and 90.03.290; adding a new section to chapter 36.70A RCW; adding a new section to chapter 36.70 RCW; adding a new chapter to Title 90 RCW; creating a new section; providing an expiration date; and declaring an emergency." (p. 1)*

[6] Washington State follows the doctrine of prior appropriation, which means that the first users have rights "senior" to those issued later. This is called "first in time, first in right." If a water shortage occurs, "senior" rights are satisfied first and the "junior" rights can be curtailed. Seniority is established by priority date — the original date a water right application was filed, or the date that water was first put to beneficial use in the case of claims and the groundwater permit exemption. Although groundwater permit-exempt uses do not require a water right permit, they are always subject to state water law. In some instances, Ecology has had to regulate permit exempt

permit is not required for small domestic uses under RCW 90.44.050, there is still regulatory oversight, including from local jurisdictions. Specifically, in order for an applicant to receive a building permit from their local government for a new home, the applicant must satisfy the provisions of RCW 19.27.097 for what constitutes evidence of an adequate water supply[7].

RCW 90.94.030 adds to the management regime for new homes using domestic permit-exempt well withdrawals in WRIA 14 and elsewhere. For example, local governments must, among other responsibilities relating to new permit-exempt domestic wells, collect a $500 fee for each building permit and record withdrawal restrictions on the title of the affected properties. Additionally, this law restricts new permit-exempt domestic withdrawals in WRIA 14 to a maximum annual average of up to 950 gallons per days per connection, subject to the five thousand gallons per day and ½-acre outdoor irrigation of non-commercial lawn/garden limits established in RCW 90.44.050. Ecology has published its interpretation and implementation of RCW 19.27.097 and RCW 90.94 in Water Resources POL 2094 (Ecology, 2019a). For additional information, readers can review those laws and policy for comprehensive details and agency interpretations.

1.1.3 Planning Requirements Under RCW 90.94.030

While supplementing the local building permit requirements, RCW 90.94.030(3) goes on to establish the planning criteria for WRIA 14. In doing so, it sets the minimum standard of Ecology's collaboration with the WRIA 14 Committee in the preparation of this watershed plan. In practice, the process of plan development was one of broad integration, collectively shared work, and a striving for consensus described in the WRIA 14 Committee's adopted operating principles, which are further discussed below.

In addition to these procedural requirements, the law and consequently this watershed plan, is concerned with the identification of projects and actions intended to offset the anticipated impacts from new permit-exempt domestic groundwater withdrawals over the next 20 years and provide a net ecological benefit[8]. In establishing the primary purpose of this watershed plan, RCW 90.94.030 (3) also details both the required and recommended plan elements. Regarding the WRIA 14 Committee's approach to selecting projects and actions, the law also speaks to "high and lower priority projects." The WRIA 14 Committee understands that, as provided in the Final Guidance on Determining Net Ecological Benefit (Ecology 2019b), "use of

water users when they interfere with older, "senior" water rights, including instream flow rules. More information is available on the Department of Ecology's website: https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability.

[7] RCW 19.27.097 states that "Evidence may be in the form of a water right permit from the department of ecology, a letter from an approved water purveyor stating the ability to provide water, or another form sufficient to verify the existence of an adequate water supply."

[8] The planning horizon for planning to achieve a NEB is the 20 year period beginning with January 19, 2018 and ending on January 18, 2038. The planning horizon only applies to determining which new consumptive water uses the plan must address under the law. The projects and actions required to offset the new uses must continue beyond the 20-year period and for as long as new well pumping continues. (Ecology, 2019b; page 7)

these terms is not the sole critical factor in determining whether a plan achieves a NEB… and that plan development should be focused on developing projects that provide the most benefits… regardless of how they align with [these] labels" (page 12). It is the perspective of the WRIA 14 Committee that this watershed plan satisfies the requirements of RCW 90.94.030.

1.2 Requirements of the Watershed Restoration and Enhancement Plan

RCW 90.94.030 of the Streamflow Restoration law directs Ecology to establish a watershed restoration and enhancement committee in the Kennnedy - Goldsborough watershed and develop a watershed restoration and enhancement plan (watershed plan) in collaboration with the WRIA 14 Committee. Ecology determined that the intent was best served through collective development of the watershed plan, using an open and transparent setting and process that builds on local needs.

At a minimum, the watershed plan must include projects and actions necessary to offset potential consumptive impacts of new permit-exempt domestic groundwater withdrawals on streamflows and provide a net ecological benefit (NEB) to the WRIA.

Ecology issued the Streamflow Restoration Policy and Interpretive Statement (POL-2094) and Final Guidance on Determining Net Ecological Benefit (GUID-2094) in July 2019 to ensure consistency, conformity with state law, and transparency in implementing RCW 90.94. The Final Guidance on Determining Net Ecological Benefit (hereafter referred to as Final NEB Guidance) establishes Ecology's interpretation of the term "net ecological benefit." It also informs planning groups on the standards Ecology will apply when reviewing a watershed plan completed under RCW 90.94.020 or RCW 90.94.030. The minimum planning requirements identified in the Final NEB Guidance including the following (pages 7-8):

1. Clear and Systemic Logic. Watershed plans must be prepared with implementation in mind.

Streamflow Restoration law RCW 90.94.030(3)

(b) At a minimum, the plan must include those actions that the committee determines to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use. The highest priority recommendations must include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary. Lower priority projects include projects not in the same basin or tributary and projects that replace consumptive water supply impacts only during critical flow periods. The plan may include projects that protect or improve instream resources without replacing the consumptive quantity of water where such projects are in addition to those actions that the committee determines to be necessary to offset potential consumptive impacts to instream flows associated with permit-exempt domestic water use.

(c) Prior to adoption of the watershed restoration and enhancement plan, the department must determine that actions identified in the plan, after accounting for new projected uses of water over the subsequent twenty years, will result in a net ecological benefit to instream resources within the water resource inventory area.

(d) The watershed restoration and enhancement plan must include an evaluation or estimation of the cost of offsetting new domestic water uses over the subsequent twenty years, including withdrawals exempt from permitting under RCW 90.44.050.

(e) The watershed restoration and enhancement plan must include estimates of the cumulative consumptive water use impacts over the subsequent twenty years, including withdrawals exempt from permitting under RCW 90.44.050.

2. Delineate Subbasins. [The Committee] must divide the WRIA into suitably sized subbasins to allow meaningful analysis of the relationship between new consumptive use and offsets.
3. Estimate New Consumptive Water Uses. Watershed plans must include a new consumptive water use estimate for each subbasin, and the technical basis for such estimate.
4. Evaluate Impacts from New Consumptive Water use. Watershed plans must consider both the estimated quantity of new consumptive water use from new domestic permit-exempt wells initiated within the planning horizon and how those impacts will be distributed.
5. Describe and Evaluate Projects and Actions for their Offset Potential. Watershed plans must, at a minimum, identify projects and actions intended to offset impacts associated with new consumptive water use.

The WRIA 14 Committee has developed this watershed plan with the intent to ensure full implementation, either through projects and actions, or adaptive management.

The law requires that all members of the WRIA 14 Committee approve the plan prior to submission to Ecology for review. Ecology must then determine that the plan's recommended streamflow restoration projects and actions will result in an NEB to instream resources within the WRIA after accounting for projected use of new permit-exempt domestic wells over the 20 year period of 2018-2038.

RCW 90.94.030 (6). This section [90.94.030] only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 in the following water resource inventory areas with instream flow rules adopted under chapters 90.22 and 90.54 RCW that do not explicitly regulate permit-exempt groundwater withdrawals: 7 (Snohomish); 8 (Cedar-Sammamish); 9 (Duwamish-Green); 10 (Puyallup-White); 12 (Chambers-Clover); 13 (Deschutes); 14 (Kennedy Goldsborough); and 15 (Kitsap) and does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050.

1.3 Overview of the WRIA 14 Committee

1.3.1 Formation

The Streamflow Restoration law instructed Ecology to chair the WRIA 14 Committee, and invite representatives from the following entities in the watershed to participate in the development of the watershed plan:

- Each federally recognized tribal government with reservation land or usual and accustomed harvest area within the WRIA.
- Each county government within the WRIA.
- Each city government within the WRIA.

- Washington State Department of Fish and Wildlife.
- The largest publically-owned water purveyor providing water within the WRIA that is not a municipality.
- The largest irrigation district within the WRIA.[9]

Ecology sent invitation letters to each of the entities named in the law in September of 2018.

The law also required Ecology to invite local organizations representing agricultural interests, environmental interests, and the residential construction industry. Businesses, environmental groups, agricultural organizations, conservation districts, and local governments nominated interest group representatives. Local governments on the WRIA 14 Committee voted on the nominees in order to select local organizations to represent agricultural interests, the residential construction industry, and environmental interests. Ecology invited the selected entities to participate on the WRIA 14 Committee.

The WRIA 14 Committee members are included in Table 1. This list includes all of the members identified by the Legislature that agreed to participate on the WRIA 14 Committee.[10]

Table 1: WRIA 14 Entities and Membership

Entity Name	**Representing**
Skokomish Tribe	Tribal government
Squaxin Island Tribe	Tribal government
Mason County	County government
Thurston County	County government
City of Shelton	City government
Mason County Public Utility District 1	Water purveyor
Washington Department of Fish and Wildlife	State agency
Washington Department of Ecology	State agency
Olympia Master Builders Association	Residential construction
Washington State Chapter of the Sierra Club	Environmental interests
Mason-Kitsap Farm Bureau	Agricultural interests
Mason Conservation District (ex officio)	Not applicable
Washington State Department of Health (ex officio)	Not applicable
Green Diamond (ex officio)	Not applicable

The WRIA 14 Committee roster with names and alternates is available in Appendix C.

The WRIA 14 Committee invited the Mason Conservation District, Washington State Department of Health, and Green Diamond (pending) to participate as "ex-officio" members. Although not identified in the law, the ex officio members provide valuable information and

[9] There are no irrigation districts in WRIA 14.

[10] All participating entities committed to participate in the process and designated representatives and alternates.

perspective as subject matter experts. The ex officio members are active, but non-voting participants of the WRIA 14 Committee.

The law does not identify a role for the Committee following development of the watershed plan.

1.3.2 Committee Structure and Decision Making

The WRIA 14 Committee held its first meeting in October 2018. Between October 2018 and January 2021 [UPDATE LAST MEETING DATE, IF NEEDED], the WRIA 14 Committee held 27 Committee meetings open to the public. The WRIA 14 Committee met monthly, and as needed to meet deadlines.

The two and a half years of planning consisted of training, research, and developing plan components. Ecology technical staff, WRIA 14 Committee members, and partners presented on topics to provide context for components of the plan such as hydrogeology, water law, tribal treaty rights, salmon recovery, and planning.

In addition to serving as WRIA 14 Committee chair, Ecology staff provided administrative support and technical assistance, and contracted with consultants to provide facilitation and technical support for the WRIA 14 Committee. The facilitator supported the WRIA 14 Committee's discussions and decision-making, and coordinated recommendations for policy change and adaptive management. The technical consultants developed products that informed WRIA 14 Committee decisions and development of the plan. The technical consultants developed all of the technical memorandums referenced throughout this plan. Examples include working with counties on growth projections, calculating consumptive use based on multiple methods, preparing maps and other tools to support decisions, and researching project ideas. The technical consultants brought a range of expertise to the Committee including hydrogeology, GIS analysis, fish biology, engineering and planning.

During the initial WRIA 14 Committee meetings, members developed and agreed by consensus to operating principles.[11] The operating principles set forward a process for meeting, participation expectations, procedures for decision-making of the WRIA 14 Committee, communication, and other needs in order to support the WRIA 14 Committee in reaching consensus on a final plan.

The WRIA 14 Committee established technical and project workgroups to support planning efforts and to achieve specific tasks throughout plan development. The workgroups were open to all WRIA 14 Committee members as well as non-Committee members that brought capacity or expertise not available on the Committee. The workgroups made no binding decisions, but presented information to the Committee as either recommendations or findings. The WRIA 14 Committee acted on workgroup recommendations, as it deemed appropriate.

[11] Agreed upon operating principles can be found in Appendix D

This planning process, by statutory design, brought diverse perspectives to the table. As the legislation requires that all members of the WRIA 14 Committee approve the final plan prior to Ecology's review,[12] it was important for the WRIA 14 Committee to identify a clear process for making decisions. The WRIA 14 Committee strived for consensus, and when consensus could not be reached, the chair and facilitator documented agreement and dissenting opinions. All consensus and dissenting opinions were documented in meeting summaries that were reviewed and approved by the Committee. The Committee recognized that flexibility was needed in terms of timeline, and if a compromise failed to reach consensus within the identified timeline, the Committee agreed to allow the process for developing the plan to move forward while the work towards consensus continued. The Committee agreed to revisit decisions where consensus was not reached at a later date. Consensus during the foundational decisions during plan development served as the best indicators of the Committee's progress toward an approved plan.

[Language to be included when appropriate]: The WRIA 14 Committee reviewed components of the watershed plan and the draft plan as a whole on an iterative basis. **[Language to be determined]:** Once the WRIA 14 Committee reached initial agreement on the final watershed plan, broader review and approval by the entities represented on the WRIA 14 Committee was sought as needed. The WRIA 14 Committee reached final approval on the Watershed Restoration and Enhancement Plan on XX DATE 2021.

[12] RCW 90.94.030[3] "…all members of a watershed restoration and enhancement Committee must approve the plan prior to adoption"

Chapter Two: Watershed Overview

2.1 Brief Introduction to WRIA 14

Water Resource Inventory Areas (WRIAs) are large watershed areas formalized under Washington Administrative Code (Water Resources Code of 1971) for the purpose of administrative management and planning. WRIAs encompass multiple landscapes, hydrogeological regimes, levels of development, and variable natural resources. WRIA 14, also referred to as Kennedy-Goldsborough, is one of the 62 designated major watersheds in Washington State, formed as a result of the Water Resources Act of 1971 (Figure 1). The 381 square mile Kennedy-Goldsborough Watershed is within Mason and Thurston counties and includes an extensive network of independent streams that issue from springs, wetlands, small lakes, and surface water drainages (Figure 1). These streams originate from the hills located between the inlets of southern Puget Sound and the Olympic Mountains to the north, emptying into shallow bays and inlets. Principal drainages include Cranberry, Goldsborough, Kennedy, Perry, Mill, Sherwood, Johns, Deer, Alderbrook, Shumocher and Skookum Creeks. The Kennedy-Goldsborough Watershed has no major river system.

2.1.1 Land Use in WRIA 14

The upland portion of the watershed generally consists of forested land with large acreages of second and third growth coniferous trees. Land uses shift to rural and urban developments in the lower portions of streams near salt water bays. Rural residential development has primarily occurred in the unincorporated areas of Mason and Thurston counties (Figure 1).

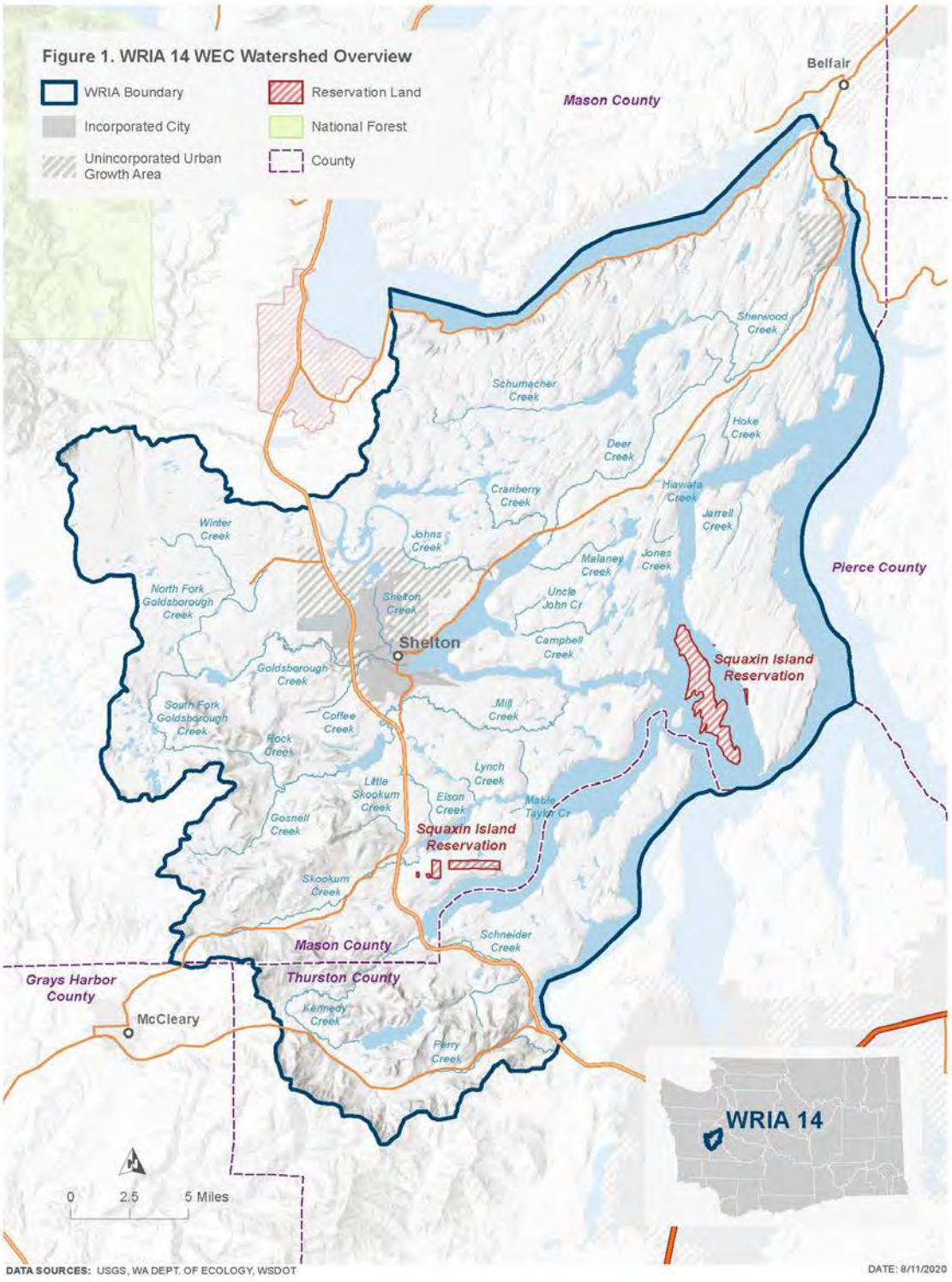


Figure 1: WRIA 14 WRE Watershed Overview

The central portion of the Kennedy-Goldsborough Watershed, near Shelton is predominantly urbanized, characterized by a combination of residential, civic/institutional, commercial, and education land covers. Undeveloped land makes up most of the portion of WRIA 14 that is in Thurston County, while forest land makes up most of the portion of WRIA 14 that is in Mason County. WRIA 14 has both unincorporated urban growth areas and incorporated urban growth areas, totaling approximately 4 percent of the watershed. The Squaxin Island Tribe's Reservation and Off-Reservation trust land occupies approximately 2,162 acres of WRIA 14 (Figure 1*).*

2.1.2 Tribal Reservations and Usual and Accustomed Fishing Areas

Tribes with usual and accustomed fishing areas within WRIA 14 include the Skokomish and Squaxin Island Tribes. These tribes hold reserved fishing rights in WRIA 14 under their treaties with the federal government (Treaty of Point No Point, Treaty of Medicine Creek).

The Tribes also possess Treaty-reserved federal water rights in WRIA 14 in quantities that are necessary to support healthy salmon populations. These water rights are necessary to carry out the purposes of their Treaties, which include the guarantee of a self-sustaining homeland and sufficient water to support the fishing right. These rights operate outside of the state water rights system and have the most senior priority date. While these water rights have not yet been quantified by a court, they likely exceed the amounts that are established by state instream flow rules. Indian water rights are property rights held in trust by the United States for the benefit of Indian tribes.[13]

2.1.3 Salmon Distribution and Limiting Factors

The Kennedy-Goldsborough Watershed is an important and productive system for salmonids. Several tributaries provide spawning and rearing habitat for fall and Summer Chum (*Oncorhynchus keta*), Coho (*Oncorhynchus kisutch*), Winter Steelhead (*Oncorhynchus mykiss*) and Coastal Cutthroat (*Oncorhynchus clarkii clarkia*). Chinook salmon (*Oncorhynchus tshawytscha*) are known to occur, but not spawn and rear in these steams. These streams often experience low streamflows during critical migration and spawning time. In addition, damming of wetlands to create man-made lakes and shoreline modifications, conversion of forestland to agricultural or residential land uses have altered streams in WRIA 14.[14] Similar to climate projections for much of the Western United States, WRIA 14 is projected to experience increasing stream temperatures, earlier streamflow timing, increasing flooding and declining summer minimum flows. These changes are likely to cause additional disruption to salmon as they migrate, spawn and rear (Mauger et al., 2015).

Both incorporated and unincorporated municipalities, various small industrial and commercial facilities, and agriculture in the Kennedy-Goldsborough Watershed compete for a finite water

[13] Language provided by WRIA 14 Tribes
[14] Salmonid Habitat Limiting Factors WRIA 14.

supply, causing a strain on surface water availability, especially during low seasonal flows in productive salmonid streams. Many people depend on the salmon fishery. This includes the Squaxin Island Tribe and the Skokomish Indian Tribe, both with usual and accustomed areas in the Kennedy-Goldsborough Watershed (NWIFC 2014).

The Kennedy-Goldsborough watershed primarily supports coho salmon, chum salmon, winter steelhead, coastal cutthroat trout, and chinook salmon, (Tables 2 and 3).

Table 2: Salmonid Species and Status in WRIA 14

Common Name	Scientific Name	Population[1]	Critical Habitat	Regulatory Agency Status
Puget Sound				
Chinook Salmon	Oncorhynchus tshawytscha	Puget Sound Chinook	No	NMFS/ Threatened/1999
Chum Salmon	Oncoryhnchus keta	Puget Sound Chum	No listing	Not listed
Coho Salmon	Oncorhynchus kisutch	Puget Sound/Strait of Georgia Coho	No	NMFS/Species of Concern/1997
Steelhead Trout	Oncorhynchus mykiss	Puget Sound Steelhead	Yes/2016	NMFS/ Threatened/2007
Rainbow Trout[15]	Oncorhynchus mykiss	No listing	No listing	No listing
Coastal Cutthroat Trout	Oncorhynchus clarki	No listing	No listing	No listing
Hood Canal				
Chinook Salmon	Oncorhynchus tshawytscha	Puget Sound Chinook	No	NMFS/ Threatened/1999
Chum Salmon	Oncoryhnchus keta	Hood Canal Chum	No Listing	No Listing
Coho Salmon	Oncorhynchus kisutch	Puget Sound/Strait of Georgia Coho	No	NMFS/ Threatened/1999
Steelhead Trout	Oncorhynchus mykiss	Puget Sound Steelhead	Yes/2016	NMFS/Species of Concern/1997
Rainbow Trout	Oncorhynchus mykiss	No listing	No listing	No listing
Coastal Cutthroat Trout	Oncorhynchus clarki	No listing	No listing	No Listing

Chinook salmon have been documented to occur in some WRIA 14 streams, but there is no known documentation of spawning and rearing. Chinook presence is likely due to strays from

[15] Note: Resident rainbow trout are the same species as steelhead and have a similar freshwater life history as steelhead. However, they are not anadromous residing in their stream of origin throughout their life.

other river systems. Estuaries such as the Oakland bay provide key habitat for juvenile rearing during smolt saltwater phases of Puget sound stocks from other rivers and streams.

Coho salmon enter WRIA 14 streams from mid-September to mid-November and spawn from late October to mid-December (Table 3). Incubation occurs through the following April. Juvenile rearing occurs for over a year before smolt outmigration the following spring.

Chum salmon enter WRIA 14 streams in the fall and winter (Table 3). Summer Chum typically enter WRIA 14 streams in the late summer to fall and spawn from September to November. Fall Chum Salmon typically enter WRIA 14 streams in the fall and spawn primarily in November and December. Incubation occurs through the late winter. Juvenile rearing and smolt outmigration occurs from that spring to early summer.

Winter steelhead enter WRIA 14 streams in the late fall through the following spring and spawn in the spring (Table 3). Prior to spawning, maturing adults hold in pools or in side channels to avoid high winter flows. Steelhead tend to spawn in moderate to high gradient sections of streams and spawn higher in the watershed compared to other salmonids. Incubation occurs through the following summer. Juvenile rearing occurs for over a year before smolt outmigration the following spring.

Coastal cutthroat trout enter WRIA 14 streams in the late fall and spawn in the winter and early spring (Table 3). Freshwater rearing occurs for a full year with smolt outmigration occurring the following spring.

Table 3 below lists the run timing and life stages of anadromous salmon and trout present throughout the watershed.

Table 3: Salmonid Presence and Life History Timing in Kennedy-Goldsborough

Species	Freshwater Life Phase	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Subbasin
Coho	Upstream migration									■	■	■		All (except Harstine)
	Spawning	■									■	■	■	
	Incubation	■	■	■							■	■	■	
	Juvenile rearing	■	■	■	■	■	■	■	■	■	■	■	■	
	Smolt outmigration			■	■	■	■							
Chum (summer)	Upstream migration								■	■	■			Oakland
	Spawning									■	■	■		Case
	Incubation	■	■							■	■	■	■	
	Juvenile rearing		■	■	■	■								
	Juvenile outmigration		■	■	■	■	■							
Chum (fall)	Upstream migration										■	■	■	All (except Harstine)
	Spawning	■	■									■	■	
	Incubation	■	■	■	■							■	■	
	Juvenile rearing			■	■	■								
	Juvenile outmigration			■	■	■	■							
Coastal Cutthroat	Upstream migration											■	■	Kennedy
	Spawning	■	■	■	■								■	Skookum
	Incubation	■	■	■	■	■						■	■	Goldsborough
	Juvenile rearing	■	■	■	■	■	■	■	■	■	■	■	■	Mill
	Smolt outmigration			■	■	■	■							Oakland
Steelhead (winter)	Upstream migration	■	■	■	■								■	All (except Harstine)
	Spawning		■	■	■	■	■							
	Incubation			■	■	■	■	■						
	Juvenile rearing	■	■	■	■	■	■	■	■	■	■	■	■	
	Smolt outmigration			■	■	■								

The Washington State Conservation Commission Limiting Factors Analysis (Kuttel 2002) identified specific limiting factors for specific waterbodies, but also provide the following general themes throughout WRIA 14 streams and rivers on a multi-species basis:

- Fish Passage
- Riparian Canopy Closure
- Streambank Condition
- Floodplain Connectivity

- Substrate Embeddedness
- Large Woody Debris
- Pool Frequency and Quality
- Off-channel Habitat
- Temperature
- Dissolved Oxygen
- Water Quantity/ Dewatering
- Change in Flow Regime
- Biological Processes

Water quantity/ Dewatering was a limiting factor in Skookum Creek, Mill Creek, Goldsborough Creek, Shelton Creek, Johns Creek, and Cranberry Creek. Changes in flow regime were a limiting factor in Skookum Creek, Goldsborough Creek, Shelton Creek, and Cranberry Creek.

2.1.4 Water System Distribution and Impacts in WRIA 14

Pumping from wells can reduce groundwater discharge to springs and streams by capturing water that would otherwise have discharged naturally. Surface water availability for streamflow may be influenced by groundwater pumping such that flows are reduced. Consumptive water use (that portion not returned to the aquifer) reduces streamflow, both seasonally and as average annual recharge. A well pumping from an aquifer connected to a surface water body can either reduce the quantity of water discharging to surface water or increase the quantity of water leaking out of the river.[16]. As required by RCW 90.94, this watershed plan includes projects and actions chosen to offset consumptive use associated with permit-exempt domestic water use, to eliminate future impacts to instream flows, and to restore streamflow.

2.2 Watershed Planning in WRIA 14

Citizens and local, state, federal, and tribal governments have collaborated on watershed and water resource management issues in WRIA 14 for decades. Watershed planning under RCW 90.82 resulted in a draft watershed plan[17], but a final plan was never approved. It should be noted that RCW 90.82 provided that "the portion of the WRIA where surface waters drain into Hood Canal shall be considered WRIA 14b, and the remaining portion shall be considered WRIA

[16] Department of Ecology, 1995

[17] WRIA 14 Watershed Management Plan – Kennedy–Goldsborough Watershed. Final Draft / February 2006. Prepared under Grant G0000107 for the WRIA 14 Planning Unit by Plateau Technical Communication Services. http://www.plateautechcomm.com/docs/WRIA14_Plan_FinalDraft.pdf

14a. Planning for WRIA 14b under this chapter shall be conducted by the WRIA 16 planning unit." Under RCW 90.98, this division did not occur, and the Plan will address all of WRIA 14.

A brief summary of broad watershed planning efforts as they relate to the past, present, and future water availability in the Kennedy-Goldsborough Watershed is provided in Section 2.2.1.

2.2.1 Current Watershed Planning Efforts in WRIA 14

The WRIA 14 watershed plan is building on many of the past efforts to further develop comprehensive plans for the entire watershed. The Kennedy-Goldsborough Watershed is within two Local Integrating Organizations (LIO), the Alliance for a Healthy South Sound (AHSS)[18] and the Hood Canal Coordinating Council (HCCC). The AHSS is developing an ecological recovery plan and the HCCC adopted an Integrated Watershed Plan in 2014. The LIOs have completed ecosystem recovery plans as part of the Action Agenda for Puget Sound Recovery and are actively working to implement holistic approaches to recovery including projects on salmon and orca recovery, stormwater runoff, shellfish protection, and forest conservation.[19] The planning process to develop an ecosystem recovery plan is community based with engagement by local, state and federal agencies. The community is engaged in a collaborative planning process to help understand priorities and support the health and sustainability of the watershed.

The AHSS and salmon recovery lead entity include many of the same organizations and individuals that participate in the WRIA 14 Watershed Restoration and Enhancement Committee (the Committee). This history of collaborative planning and shared priorities has supported the success of the watershed restoration and enhancement plan development in WRIA 14. The Public Water System Coordination Act of 1977[20] created Critical Water Supply Service Areas (CWSSA). This Act requires each water purveyor in a CWSSA to develop a water system plan for their service area, with the boundaries being in compliance with the provision of the Act. The Washington State Department of Health is primarily responsible for the water system plan approval; however local governments ensure consistency with local growth management plans and development policies. This Act and the water system plans are important for the WRIA 14 watershed planning process as water system service areas and related laws and policies can set stipulations regarding timely and reasonable service as to whether new homes connect to water systems or rely on new permit-exempt domestic wells.[21] There are currently no Coordinated Water System Plans in WRIA 14.

[18] More information on the AHSS can be found here: https://www.healthysouthsound.org/

[19] More information on local integrating organizations and their efforts to recovery Puget Sound is available here: https://www.psp.wa.gov/LIO-overview.php.

[20] RCW 70.116.070

[21] County water system planning information is available for each county.
Mason County: https://www.co.mason.wa.us/health/environmental/drinking-water/public-water-systems.php
Thurston County: https://www.thurstoncountywa.gov/planning/Pages/comp-plan.aspx

2.2.2 Coordination with Existing Plans

Throughout the development of the watershed plan, Ecology streamflow restoration staff have engaged with staff from the Salmon Recovery Lead Entity and the Puget Sound Partnership, providing briefings on the streamflow restoration law, scope of the watershed plan, and plan development status updates. The Committee chair conducted outreach to the WRIA 14 Salmon Recovery Lead Entity regarding coordination with the Committee to ensure alignment of salmon recovery priorities and the streamflow planning process. Throughout the planning process, the WRIA 14 Committee has coordinated closely with the lead entity, including inviting the lead entity to participate in meetings and take part as an ex-officio member on the Committee. , The WRIA 14 lead entity participated in the Committee and collaborated by selecting priority streams based on information from the Salmon Recovery Plan, incorporating priority salmon recovery projects in the watershed plan, and reviewing project lists and descriptions.

County comprehensive planning under the Growth Management Act of 1990 identifies where and how future population, housing, and job growth is planned. Development of this plan was also coordinated with the Mason County and Thurston County comprehensive plans. The comprehensive plans set policy for development, housing, public services and facilities, and environmentally sensitive areas, among other topics. The comprehensive plans identify Mason and Thurston County's urban growth areas, set forth standards for urban and rural development, and provide the basis for zoning districts. The Committee used the Mason and Thurston County zoning districts as the basis for determining likely areas of future rural growth.

There are numerous linkages between growth management and water resource management. The GMA addresses water resources through requirements related to water availability as well as ground and surface water protection. Public facilities, which include domestic water systems must be adequate to serve a proposed development at the time the development is available for occupancy. The requirements also call for the protection of the water quality and quantity of groundwater used for public water systems in addition to critical areas including critical aquifer recharge areas. The GMA further addresses water resources through the protection of shorelines (through integration with the Shoreline Management Act) and critical areas, including fish and wildlife habitat conservation areas, riparian habitat, frequently flooded areas, and wetlands, all of which contribute to surface and ground water quality. In the rural area, GMA further requires a land use pattern that protects the natural water flows along with recharge and discharge areas for ground and surface waters. As discussed in Sections 1.1.1 and 1.1.2, ESSB 6091 was enacted in response to the State Supreme Court's "Hirst decision" (primarily codified as RCW 90.94, and other statutes) and amended the GMA. In addition to GMA, there are other connections between land use codes, water planning and water systems.

2.3 Description of the Watershed - Geology, Hydrogeology, Hydrology, and Streamflow

2.3.1 Geologic Setting

Pleistocene glaciation (2.6 million to 11,700 years ago) played an important role in sculpting the landscape of the Puget Sound Lowlands. Reaching a maximum extent during the Vashon stage of the Fraser Glaciation approximately 16,000 years ago, an ice sheet advanced southward into present day Puget Sound (Pringle, 2008). Multiple advances and retreats of the ice sheet formed the Puget Sound Lowlands, depositing a complex sequence of glacial and inter-glacial sediments on top of older sediments and Eocene age (56 to 33.9 million yeaers ago) basalt bedrock.

The surficial geology of WRIA 14 is dominated by a sequence of unconsolidated glacial and interglacial deposits. Depth to bedrock can exceed 1,000 feet in the eastern part of the WRIA (Welch and Savoca, 2011). Basalt bedrock forming the Black Hills outcrops in the southwestern part of the WRIA and the unconsolidated deposits are thin or absent. Shallow bedrock is also present around the majority of Summit Lake, resulting in irregular and unpredictabe groundwater availability (Gray and Osborne 1991; WDNR 2004). Most residential permit-exempt groundwater wells "…utilize seep developments or dug wells which intercept the shallow groundwaters moving towards the lake… (Noble and Wallace 1966).

Understanding the geologic setting allows characterization of surface and groundwater flow through the basin. Defining the relationships between surface water flow and deeper groundwater are important to understanding how to manage surface water resources and can be helpful in identifying strategies to offset the impacts of pumping from permit-exempt wells.

2.3.2 Hydrogeologic setting

U.S. Geological Survey (USGS) described the hydrogeology of the northern and eastern areas of WRIA 14 in a hydrogeologic framework report for the Johns Creek Subbasin (Welch and Savoca 2011). Surficial geologic maps of most of the WRIA have also been developed by the Washington State Department of Natural Resources.[22] The hydrogeologic units of the area are described as being either water-bearing ("aquifer") and non-water-bearing ("aquitard" or "confining layer") sediments, without regard to geologic origin or age. Major groundwater aquifers are found in the unconsolidated glacial and interglacial sediments.

Groundwater in shallow, often discontinuous aquifers generally flows toward local surface water bodies (lakes and streams) while groundwater in deeper, more regional aquifers is expected to flow generally eastward toward inlets of Puget Sound or northward toward Hood Canal. In some areas, groundwater may flow in a different direction from surface water. For

[22] e.g., Derkey, et al., 2009a; Derkey, et al., 2009b; Polenz, et al., 2010

example, in upper Goldsborough Creek basin surface waters flow towards the South Sound, but some aquifers flow towards Hood Canal (Plateau 2006).

The USGS describes the hydrogeology of the watershed as eight hydrogeologic units, typically alternating between aquifer and non-aquifer layers. This information is summarized in Appendix E: Regional Aquifer Units in WRIA 14. Four of the aquifers and two of the confining units defined by USGS are present throughout watershed, except in the southwest portion where bedrock is at or near land surface. These four aquifers are the most likely water sources for new permit-exempt wells. The upper three aquifer units (AA, UA, MA) are also the main source of direct recharge or baseflow to the surface water system. The Lower Aquifer does not have surface expressions except below sea level where it projects into Hood Canal.

2.3.3 Hydrology and Streamflow

Numerous small streams that drain into the marine waters of Puget Sound surrounding the Kennedy-Goldsborough Watershed (WRIA 14) characterize the hydrology of the watershed. There are 139 identified streams totaling over 240 linear miles in the watershed. All of the streams are typical lowland types with their headwaters originating from natural springs, surface water drainages, wetlands, or small lakes in foothills. Despite its abundance of creeks, WRIA 14 has no major river systems. The principal drainages are Schumacher, Sherwood, Cranberry, Deer, Johns, Goldsborough, Mill, Kennedy, Perry, Alderbrook, and Skookum Creeks with many smaller streams discharging directly into Puget Sound (Figure 1) (Plateau, 2006). The topography is relatively flat (ranging from sea level to ~300+ feet elevation) except in the westerly portion of the watershed where elevations rise up to 2,400 feet.

The larger streams consist of Goldsborough (mean annual flow of ~125 cfs), Kennedy (mean annual flow of ~65 cfs), and Skookum (mean annual flow of ~55 cfs) Creeks. Approximately 20 percent of streamflows are supported by a relatively constant year-round discharge of groundwater as baseflow varying from 6 percent in the Upper Kennedy catchment (which is underlain primarily by bedrock) to 24 percent in the Case Inlet drainages (which is underlain by sediments) (Golder 2003).

Because snow and snow pack are not a major factor in the watershed, streamflows reflect seasonal variation in precipitation. Annual precipitation ranges from approximately 55 inches near the Puget Sound to approximately 85 inches on the west side of the watershed (Golder 2003). In addition to directly contributing to streamflow maintenance, precipitation also contributes to storage in lakes and aquifers that serve as natural reservoirs, helping to moderate extreme high and low flows. Much of the precipitation that falls in the Black Hills runs off because of the impermeable rock that dominates the landform. This causes many headwater streams originating in the southwestern portion of WRIA 14 to go dry during the summer months. Precipitation that falls on the unconsolidated sediment of the glacial plain tends to percolate into the groundwater, providing perennial flow to lowland streams. Groundwater provides all late summer baseflow to area streams (Molenaar and Noble 1970). Water recharged to the deeper groundwater system may discharge directly to Puget Sound, an ecologically important function that maintains nearshore marine habitat.

Streamflows in WRIA 14 are typically lowest during the late summer and early fall, when precipitation is low and infrequent. Flows are sustained by groundwater during this period, when rearing juvenile coho and late summer spawning chum are most impacted by low flows. Extreme low flows in these streams can occur during years with relatively low precipitation, because of lower water tables and reduced shallow subsurface flows from summer precipitation.

WRIA 14 streams flow into the southern portion of Hood Canal and multiple south Puget Sound inlets (Figure 1: vicinity map). South Puget Sound inlet receiving waters include Case Inlet, Hammersley Inlet (including Oakland Bay), Little Skookum Inlet, Totten Inlet, and Eld Inlet. The South Hood Canal shoreline is the marine receiving waters of many small creeks including Twanoh Falls Creek, Twanoh Creek, Alderbrook Creek, and Happy Hollow Creek, as well as some intermittent streams and seeps (WRIA 16 Planning Unit, 2006). The primary streams that flow into Case Inlet include Sherwood and Shumocher Creeks. Sherwood and Shumocher Creeks are part of the same drainage basin, separated by Mason Lake. Small streams on Harstine and Squaxin Islands also flow into Case Inlet. The primary streams that flow into Hammersley Inlet include Goldsborough Creek, Johns Creek, Cranberry Creek, Deer Creek, and Mill Creek. In the past the South Shore Hood Canal was included as part of WRIA 16 for watershed planning purpose. However, it is designated as part of WRIA 14 and is being addressed as such in this watershed plan.

The Committee further divided WRIA 14 into subbasins for purposes of this watershed plan, and will be described in Chapter 3. The information in this chapter is not based on the Committee's definition of subbasins.

The University of Washington Climate Impact Group has developed numerous downscaled global climate models to forecast streamflow and precipitation changes in the Puget Sound, including WRIA 14. General trends such as increased stream temperatures, earlier streamflow timing, increased winter flooding, and lower summer minimum flows are expected (Mauger, et al. 2015).[23] Water temperatures impact salmonid survival, growth and fitness. Higher temperatures are exacerbated by low stream flow.

Instream flow rules are established to maintain or safeguard aquatic biota and fish, and to support recreational and other beneficial uses. Stream closures or flow limitations were established on nine streams and lakes under the Fisheries Code (RCW 75.20) and water right actions of Ecology (or the predecessor agencies) between 1953 and 1975. Minimum instream flows were established on an additional 14 streams across the watershed in 1984 under Ecology's Instream Resource Protection Program (WAC 173-514). Twenty-one streams are seasonally closed to further (surface water) consumptive appropriation.

USGS provided the streamflow statistics for for Kennedy and Goldsborough Creeks, both of which have at least ten years of continuous stream gauging data and an established minimum

[23] Climate forecasts for WRIA 14 can be found here: https://climatetoolbox.org/

instream flow regulation. [24] Streamflow statistics from stream gage data provided by the Squaxin Island Tribe were developed by the Department of Ecology, and are included in Appendix K. The analysis indicated that minimum instream flows in these creeks are not met between 50-60% of the time during the period of record, which was considered to be within a wet cycle of the Pacific Decadal Oscillation (PDO) (Golder 2003) (Kuttel 2002). Kennedy creek is regulated by a discharge structure in Summit Lake, and the shallow underlying bedrock ties the lake and stream together creating a unique situation as it relates to meeting instream flows.

WAC173-514 set minimum instream flows for the Kennedy-Goldsborough watershed and its tributaries, closing streams to further appropriation of surface water. WAC173-515 set minimum instream flows for 10 streams and their tributaries, including lakes. Eight of these 10 streams and their tributaries are closed to further appropriation of surface water for part of the year. An additional 11 streams and their tributaries are closed to further appropriation of surface water from May 1 – October 31.Streams subject to minimum instream flows include Shumocher Creek, Sherwood Creek, Deer Creek, Cranberry Creek, Johns Creek, Goldsborough Creek, Mill Creek, Skookum Creek, Kennedy Creek, and Perry Creek. Many of these streams, including Cranberry Creek, Johns Creek, Goldsborough Creek, Skookum Creek, and Mill Creek, have average monthly flows that are less than the minimum instream flows on a seasonal basis (SIT 2020).

The background of how instream flows and closures were set are described in the Instream Resources Protection Program (IRPP) for WRIA 14 (Ecology 1983). Instream flows were set for streams where continuous flow records existed or correlations of flow to other stream gages were possible and where average annual flows exceeded five cfs. Streams closed by the WAC were previously closed pursuant to water right recommendations or had average annual flows less than five cfs and a known high value for fish production, aesthetics, and other environmental values.

The IRPP does not describe the instream flow setting technique; instream flows are believed to have been set using a combination of Physical Habitat Simulation (PHABSIM), which is a suite of hydraulic and habitat models that compute an index to habitat suitability and discharge, and the toe-width method to determine a habitat based instream flow recommendation. The instream flow recommendations tended to use the 40-50 percent exceedance as a hydrologic limit to the habitat-based instream flow recommendation (Pacheco 2020).

In establishing instream flows by regulation, Ecology used regulatory flows that were higher than the flows commonly seen in the stream and as such, were not designed to be met 100 percent of the time, nor was there an intent to try to achieve the instream flow on any given day. Instead, the intent of the regulation was to protect streams from further depletion (e.g., through subsequent appropriations) when flows approach or fall below the recommended discharges (Ecology 1983). When streamflows are below the instream flow, Ecology may

[24] USGS streamflow statistics are available here: (https://waterdata.usgs.gov/wa/nwis/sw)

manage water use by contacting “junior” water users and inform them of the need to curtail water use. Ecology protects instream flows when issuing new water rights, or denies a water right application if mitigation is not provided.

2.3.4 Water Quality

Ecology evaluates surface waters in WRIA 14 every two years with a water quality assessment. Total Maximum Daily Load (TMDL) plans are part of the Federal Clean Water Act that address concerns identifying and tracking surface waters impaired by pollutants, and create programs to restore them. The assessment evaluates existing water quality data and classified waterbodies into the following categories:

- Category 1: Meets tested standards for clean waters.
- Category 2: Waters of concern; Waters in this category have some evidence of a water quality problem, but not enough to show persistent impairment.
- Category 3: Insufficient Data
- Category 4: Impaired waters that do not require a TMDL
    - Category 4a: already has an EPA-approved TMDL plan in place and implemented.
    - Category 4b: has a pollution control program, similar to a TMDL plan, that is expected to solve the pollution problems.
    - Category 4c: is impaired by causes that cannot be addressed through a TMDL plan. Impairments in these water bodies include low water flow, stream channelization, and dams.
- Category 5: Polluted waters that require a water improvement project.

The latest water quality assessment classified many waterbodies in WRIA 14 (Ecology 2020). Category 4 and 5 assessment results are listed in Appendix F. Category 5 listings are based on exceedance of water temperature, dissolved oxygen, pH, and bacteria water quality standards.

Four TMDLs have been prepared in WRIA 14 to address water quality impairments. These studies include the Cranberry, Johns, and Mill Creeks Temperature TMDL (in preparation), the Totten, Eld, and Skookum Inlets Tributaries Bacteria and Temperature TMDL (Ecology 2006), and the Oakland Bay, Hammersley Inlet Tributaries Bacteria TMDL (Ecology 2011).

Reduced stream flow can lead to degraded water quality. Reduced flow leads to increased pollutant concentrations with the same pollutant load (e.g. bacteria). Reduced stream flow also makes the stream flow more slowly, allowing more time for the water to warm up and for periphyton (i.e. algae) to cause dissolved oxygen and pH exceedances. These degraded water quality conditions can impact aquatic life if conditions exceed suitable ranges. Therefore, projects that improve water quality also provide a net ecological benefit.

Chapter Three: Subbasin Delineation

3.1 Introduction

To allow for meaningful analysis of the relationship between new consumptive use and offsets per Ecology's Final NEB Guidance,[25] the Committee divided WRIA 14 into subbasins for the purposes of this watershed plan[26]. This was helpful in describing the location and timing of projected new consumptive water use, the location and timing of impacts to instream resources, and the necessary scope, scale, and anticipated benefits of projects. The Committee used the subbasin delineations to set priorities for developing water offset projects close to the location of anticipated impacts. In some instances, subbasins may not correspond with hydrologic or geologic basin delineations (e.g., watershed divides)[27]. This chapter is based on the Subbasin Delineation Technical Memorandum (Appendix G).

3.2 Approach to Develop Subbasins

The Committee divided WRIA 14 into eight subbasins for the purposes of assessing new PE wells, consumptive use, and project offsets initially using the delineations used in the draft WRIA 14 Watershed Management Plan.[28, 29] The basic considerations of the Committee in delineating subbasin boundaries for this planning process were:

- Existing or concurrent planning efforts may have already delineated subbasins.
- The receiving salt waterbody to which surface waters drain.

Other considerations were:

- Too few subbasins reduce the understanding of relationships between where pumping effects occur and where benefits of offset projects occur.

[25] "Planning groups must divide the WRIA into suitably sized subbasins to allow meaningful analysis of the relationship between new consumptive use and offsets. Subbasins will help the planning groups understand and describe location and timing of projected new consumptive water use, location and timing of impacts to instream resources, and the necessary scope, scale, and anticipated benefits of projects. Planning at the subbasin scale will also allow planning groups to consider specific reaches in terms of documented presence (e.g., spawning and rearing) of salmonid species listed under the federal Endangered Species Act." Final NEB Guidance p. 7.

[26] The term "subbasin" is used by the WRIA 14 Committee for planning purposes only and to meet the requirements of RCW 90.94.030 (3)(b).

[27] Washington State Department of Ecology (Ecology), 2019. Final Guidance for Determining Net Ecological Benefit, GUID-2094 Water Resources Program Guidance. Washington State, Department of Ecology, Publication 19-11-079.

[28] This is consistent with Final NEB Guidance that defines subbasins as a geographic subarea within a WRIA. A subbasin is equivalent to the words "same basin or tributary" as used in RCW 90.94.020(4)(b).

[29] HDR, 2019. WRIA 14 Draft Subbasin Delineation. June 26, 2019.

- Too many subbasins can make it unwieldly to evaluate all of the offset projects needed to achieve a net ecological benefit for the WRIA.
- Stream distribution within each subbasin.
- Fishery resources within each subbasin.
- Streams with closures and minimum flows within each subbasin.

A more detailed description of the subbasin delineation is in the technical memo available in Appendix G.

3.3 Subbasin Map

The WRIA 14 subbasin delineations are shown on Figure 2 and summarized below in Table 4:

Table 4: WRIA 14 Subbasins

Subbasin Name	Primary Rivers and Tributaries	County
Case	Sherwood Creek, Shumocher Creek, Hoke Creek, Hiawata Creek, and Jones Creek	Mason
Goldsborough	Goldsborough Creek, North Fork Goldsborough Creek, South Fork Goldsborough Creek, Winter Creek, and Coffee Creek	Mason
Harstine	Jarrell Creek	Mason
Hood	Alderbrook Creek and multiple small drainages discharging directly to Hood Canal	Mason
Kennedy	Kennedy Creek, Perry Creek, Snodgrass Creek, Schneider Creek and other small drainages	Thurston and Mason
Mill	Mill Creek, Rock Creek, Gosnell Creek and small drainages discharging to the south shore of Hammersley Inlet	Mason
Oakland	Deer Creek, Cranberry Creek, Johns Creek, and other small drainages discharging to Oakland Bay	Mason
Skookum	Deer Creek, Lynch Creek, Elson Creek, Little Skookum Creek, Skookum Creek, and all drainages discharging to Little Skookum Inlet	Mason

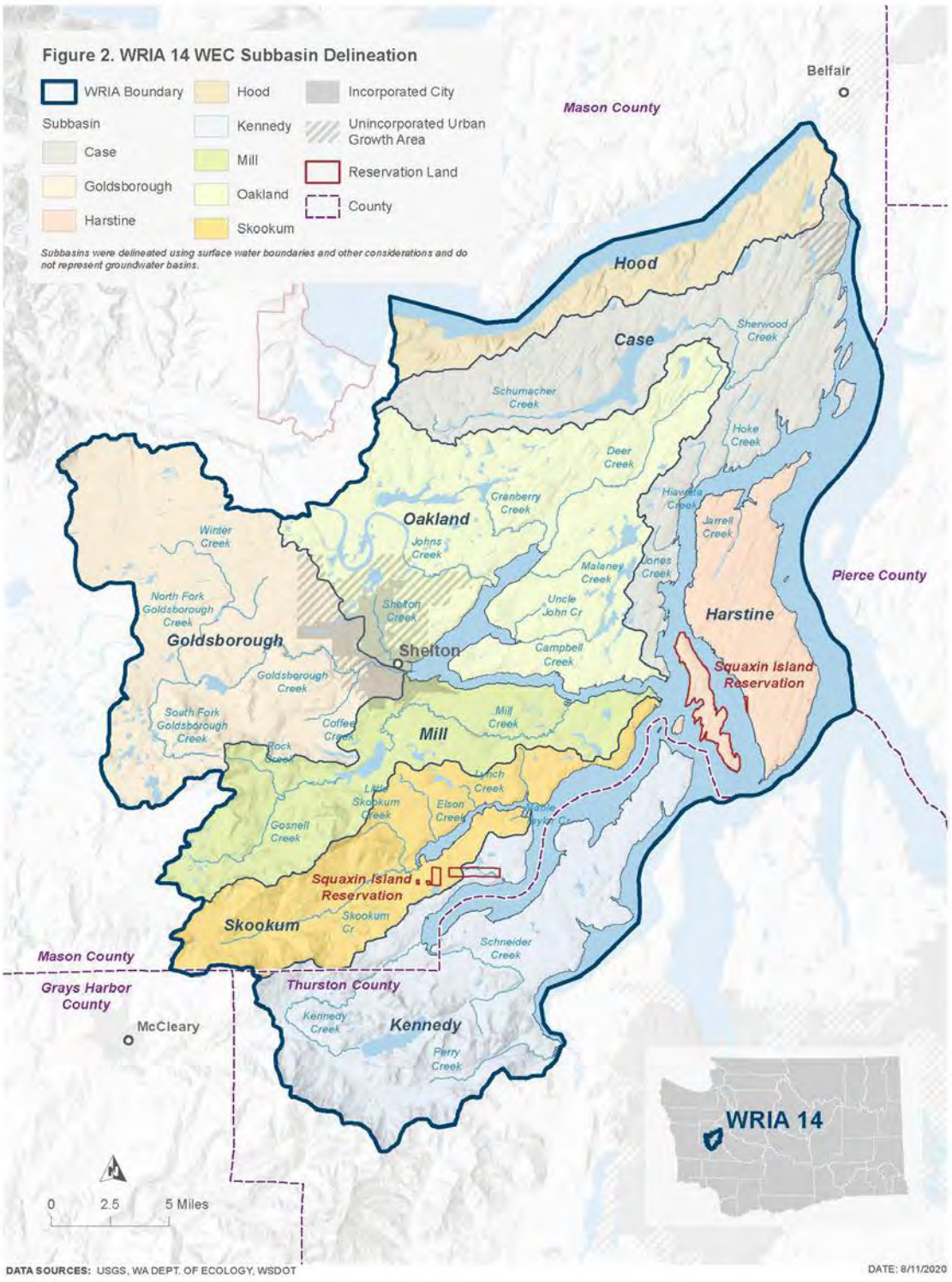


Figure 2: WRIA 14 WRE Subbasin Delineation

Chapter Four: New Consumptive Water Use Impacts

4.1 Introduction to Consumptive Use

The Final NEB Guidance states that, "Watershed plans must include a new consumptive water use estimate for each subbasin, and the technical basis for such estimate" (Ecology 2019b, page 7) [30]. This chapter provides the WRIA 14 Committee's projections of new domestic permit-exempt well connections (referred to as PE wells throughout this plan) and their associated consumptive use (CU) for the 20-year planning horizon. This chapter summarizes information from the technical memos prepared for the Committee.

4.2 Projection of Permit-Exempt Well Connections (2018 - 2038)

This watershed plan addresses new consumptive water use from projected new homes connected to PE wells. Generally, new homes are associated with wells drilled during the planning horizon. However, new uses can occur where new homes are added to existing wells serving group systems under RCW 90.44.0050. The well use discussed in this plan refers to both of these types of new well use. PE wells may be used to supply houses, and in some cases, other Equivalent Residential Units (ERUs) such as small apartments. For the purposes of this document, the terms "house" and "home" refer to any permit-exempt domestic groundwater use, including other ERUs.

The WRIA 14 Committee projects 4,294 PE wells over the planning horizon. The largest number of these wells are likely to be installed in the Oakland Bay subbasin. Projections for Thurston County in this plan are based on Thurston County Comprehensive planning dates through 2040.

The WRIA 14 Committee reached consensus on a methodology to project the most likely number of new PE wells over the planning horizon in WRIA 14, in order to estimate new consumptive water use. The method is based on recommendations from Appendix A of Ecology's Final NEB Guidance. The following sections provide the 20-year projections of new PE wells for each subbasin within WRIA 14, the methods used to develop the projections, and the uncertainties associated with the projections.

[30] Though the statute requires the offset of "consumptive impacts to instream flows associated with permit-exempt domestic water use" (RCW 90.94.020(4)(b)) and 90.94.030(3)(b)), watershed plans should address the consumptive use of new permit exempt domestic withdrawals. Ecology recommends consumptive use as a surrogate for consumptive impact to eliminate the need for detailed hydrogeologic modeling, which is costly and unlikely feasible to complete within the limited planning timeframes provided in chapter 90.94 RCW. RCW 90.94.020 and 90.94.030 have various references to how watershed plans are to project, offset, or account for "water use." Ecology interprets these subsections of the law (RCW 90.94.020(4)(b), 90.94.020(4)(c), 90.94.030(3)(b), 90.94.030(3)(c), 90.94.030(3)(d), and 90.94.030(3)(e)) to relate to the consumptive water use of new permit-exempt domestic withdrawals that come online during the planning horizon. (Ecology, 2019a, page 7)

4.2.1 Permit-Exempt Well Connections Projection by Subbasin

This WRIA 14 watershed plan compiles the counties' growth projection data both at the WRIA scale and by subbasin. Note that two counties are present in WRIA 14: Mason County and Thurston County. The projection for new PE wells in WRIA 14 by subbasin is shown in Table 5 and Figure 3.

Table 5: Number of PE Wells Projected between 2018 and 2038 for the WRIA 14 Subbasins

Subbasin	Projected PE Wells
Case	512
Goldsborough	546
Harstine	143
Hood	117
Kennedy (Mason County)	59
Kennedy (Thurston County)	529
Mill	466
Oakland	1559
Skookum	363
Totals	**4,294**

Mason County projects approximately 3,765 new PE wells for the over the planning horizon. Thurston County projects approximately 529 PE wells within unincorporated areas of WRIA 14 over the planning horizon. The total projection for WRIA 14 is 4,294 new PE wells.

4.2.2 Methodology

The WRIA 14 Committee gave deference to each county for identifying the most appropriate method of projecting PE wells within their jurisdiction. Each county used a different method for calculating the PE well projections within their jurisdiction. Both the Mason County and Thurston County methods are based on Office of Financial Management (OFM) population forecasts, which is simple mortality and migration rate data collection. This method is summarized in the section below for each respective County. The technical consultant developed a WRIA 14 Permit-Exempt Growth and Consumptive Use Summary, provided in Appendix H, which offers a more detailed description of the methods used by the counties.

Mason County Growth Projection Methodology

Mason County developed growth projections based on the Mason County Comprehensive Plan, which is based on OFM medium population growth estimates.

Mason County used the following steps to project growth of permit-exempt connections over the planning horizon:

1. Develop 20-year growth projections based on OFM medium population growth estimates, and conversion to dwelling units based on assumed people per dwelling unit.

2. Determine available land for single family domestic units and determine proportion of build-out capacity by county urban growth areas (UGAs) and rural lands.
3. Apply growth projections to buildable lands.
4. Overlay subbasins to determine new permit-exempt connections in each subbasin.

These methods were used to develop an initial projection of 3,509 new PE wells. A revised projection was developed by assuming that some permit-exempt growth will occur in water system areas, which resulted in 3,765 new PE wells. It was assumed that growth in each respective water system will be proportional to buildable parcels without water system hookups relative to parcels with water system hookups. The following methods were applied on top of the initial methods:

1. Define total buildable parcels in GIS, using Department of Health (DOH) service area polygons and county parcel data.
2. Define total approved water system connections (built out + available) and active water system connections (built out) using the DOH Sentry database (DOH 2019).
3. Buildable parcels with water system hookup = total approved minus active water system connections.
4. Buildable parcels without water system hookup = total buildable parcels minus total approved water system connections.
5. Define proportion of permit-exempt growth within each water system by dividing number of buildable parcels without water system hookups by total number of buildable parcels.
6. Multiply proportion of permit-exempt growth within each respective water system by total growth projected to occur in that water system.
7. Sum additional permit-exempt growth by subbasin and add to initial permit-exempt growth projection.

Thurston County Growth Projection Methodology

The Thurston County growth projection methods and results were provided by the Thurston Regional Planning Council (TRPC) and Thurston County[31].

TRPC used the following steps to project growth of permit-exempt connections over the planning horizon:

1. Develop 20-year growth projections based on OFM medium population growth estimates, and conversion to dwelling units based on assumed people per dwelling unit.
2. Develop residential capacity estimates.

[31] Documentation for TRPC's housing projections is available at https://www.trpc.org/236

3. Allocate growth to parcels based on recent residential development and permit trends, where capacity is available.
4. Once allocated, estimate the amount of development on permit-exempt connections based on the following criteria provided by Thurston County::
    a. Located outside incorporated cities; growth in incorporated cities is assumed to connect to a municipal water system.
    b. Water systems within UGAs; permit-exempt growth is assumed to occur on parcels with no sewer service.
    c. Rural water systems; assumed no permit-exempt growth.

These methods were used to develop an initial projection of 497 new PE wells. A revised projection was developed by assuming that some permit-exempt growth will occur in rural water system areas, which resulted in a projection of 529 new PE wells. It was assumed growth in each respective rural water system will be proportional to buildable parcels without water system hookups relative to parcels with water system hookups.

The Mason and Thurston County PE well growth projections were added together for the initial and revised scenarios, respectively. The WRIA 14 Committee agreed by consensus to use revised projections totaling 4,294 new PE wells in WRIA 14 as the final estimate for the purposes of estimating consumptive use.

4.2.3 Distribution of New PE Wells

The WRIA 14 Committee mapped potential locations of new PE wells in the watershed based on parcels available for residential development dependent on PE wells. These parcels are primarily in rural areas, but also within Urban Growth Areas that are not served by water systems, and in water systems where growth is expected to exceed available water system infrastructure. The resulting map (Figure 3) shows the most likely areas that new residential development dependent on PE wells will occur.

The WRIA 14 Committee projects that most new PE wells will occur in and around the Shelton urban growth area, in the Oakland and Goldsborough subbasins. (Table 5 and Figure 3).

4.2.4 Projected Growth Map

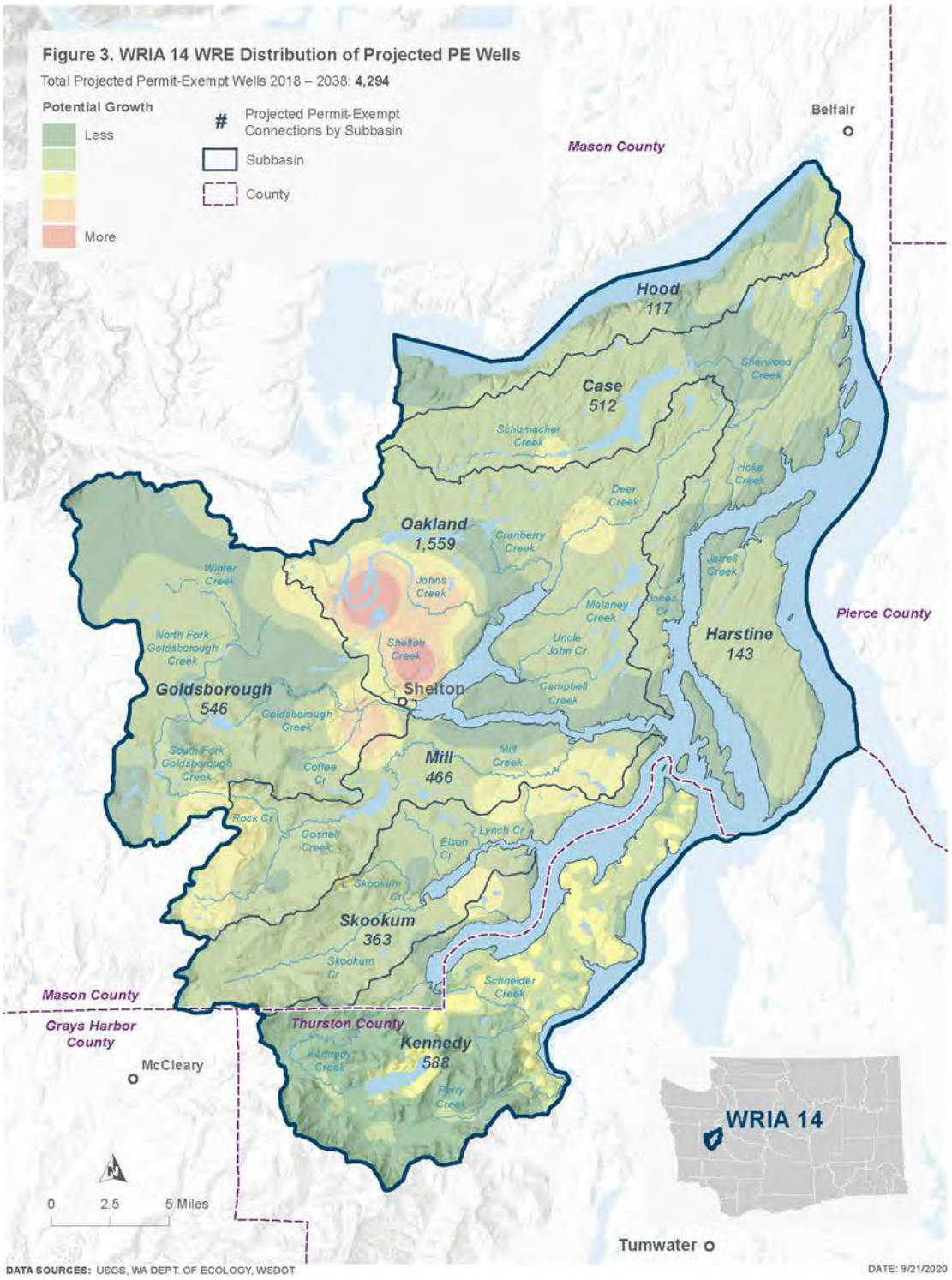


Figure 3: WRIA 14 WRE Distribution of Projected PE Wells for 2018-2038

4.2.5 Summary of Uncertainties and Scenarios

The methods described above for projected new PE wells include a number of uncertainties. These uncertainties were discussed with the WRIA 14 Committee and recognized as inherent to the planning process. The uncertainties are shared here to provide transparency in the planning process and deliberations of the Committee, and to evaluate the range of outcomes that could occur in the future.

One example of uncertainty is that Mason County's method omitted PE wells installed within water system areas. Although most cities require new homes to connect to water systems, they allow exceptions if a connection is not available (for instance, if a home is more than 200 feet from a water line). Additionally, cities and developments may increase the number of available connections through water system expansion, which may result in a lower number of new PE wells, especially in rural areas which have water systems.

Another example of uncertainty is the reliance on historical data. The methods assumed that historical growth trends would continue into the future. However, many factors play into homebuilding trends. Additionally, there is some uncertainty in the methodology that may lead to assumptions of where new PE wells are expected to occur.

An additional example of uncertainty are variations in growth scenarios for each county by OFM. The OFM medium growth scenario was used for this analysis, however OFM also provides a high growth scenario, which is not a formal alternative scenario and is based on the likelihood of the counties experiencing a historically high growth rate. The OFM 20-year high growth projection for 2040 is 18.4% higher than the medium growth projection in Thurston County, and 17.2% higher than the medium growth projection in Mason County.

Because of the uncertainty in the projections, the WRIA 14 Committee evaluated additional PE well scenarios using different assumptions, such as that some permit-exempt growth will occur in rural water system areas. This resulted in the final PE well estimate which the Committee agreed by consensus was the appropriate analysis for WRIA 14.

This methodology is described in detail in Appendix H.

4.3 Impacts of New Consumptive Water Use

The WRIA 14 Committee used a 20-year projection for WRIA 14 of new PE wells to estimate the consumptive water use that this watershed plan must address and offset. The WRIA 14 Committee estimates 759 acre-feet per year (AFY) (1.05 cfs) as the "most likely" new consumptive water use in WRIA 14. This watershed plan also includes a higher consumptive use goal of 1,035 AFY (1.43 cfs) to achieve through adaptive management. This section includes an overview of the method used by the WRIA 14 Committee to estimate new consumptive water use (consumptive use), an overview of the anticipated impacts of new consumptive use in WRIA 14 over the planning horizon, and other considerations by the WRIA 14 Committee, such as assumptions and uncertainties. The WRIA 14 Permit-Exempt Growth and Consumptive Use Summary provides a more detailed description of the analysis and alternative scenarios considered (Appendix H.)

Consistent with the Final NEB guidance (page 8, Appendix B), the Committee assumed impacts from consumptive use on surface water are steady-state, meaning that impacts on the stream from pumping do not change over time. This assumption is based on the wide distribution of future well locations and depths across varying hydrogeological conditions.

4.3.1 Methodology to estimate indoor and outdoor consumptive water use

Appendix A of the Final NEB Guidance describes a method (referred to as the Irrigated Area Method) that assumes average indoor use per person per day, and reviews aerial imagery to provide a basis to estimate irrigated area of outdoor lawn and garden areas. Use patterns for indoor uses versus outdoor uses are different. Indoor use is generally constant throughout the year, while outdoor use occurs primarily in the summer months. Also, the portion of water use that is consumptive varies for indoor and outdoor water use. The Irrigated Area Method accounts for indoor and outdoor consumptive use variances by using separate approaches to estimate indoor and outdoor consumptive use.

To develop the consumptive use estimate, the WRIA 14 Committee used the Irrigated Area Method and relied on assumptions for indoor use and outdoor use from Appendix A of the Final NEB Guidance (Ecology 2019). This chapter provides a summary of the technical memo available in Appendix H.

To develop consumptive use estimates, the WRIA 14 Committee looked at other methodologies for estimating consumptive use, such as the water system data method. The Committee determined that the water system data method would not provide an accurate depiction of water use in the watershed, but the results are provided in the technical memo in Appendix H, and additional water system data from Mason PUD is provided in Appendix L.

New indoor consumptive water use

Indoor water use refers to the water that households use (such as in kitchens, bathrooms, and laundry), and that leaves the house as wastewater, typically to a septic system.[32] The WRIA 14 Committee used the Irrigated Area Method and Ecology's recommended assumptions for indoor daily water use per person and local data to estimate the average number of people per household, and applied Ecology's recommended consumptive use factor to estimate new indoor consumptive water use[33]:

- 60 gallons per day (gpd) per person, as recommended by Ecology.
- 2.5 persons per household assumed for rural portions of WRIA 14[34]

[32] USGS 2012 https://pubs.usgs.gov/sir/2012/5163/sir12_5163.pdf
[33] NEB Guidance 2019 https://fortress.wa.gov/ecy/publications/documents/1911079.pdf
[34] OFM information for each county:
Mason County: https://www.ofm.wa.gov/washington-data-research/county-and-city-data/mason-county

- 10 percent of indoor use is consumptively used (or a consumptive use factor [CUF] of 0.10), based on the assumption that homes on PE wells are served by on-site sewage systems. On-site sewage systems return most wastewater back to the immediate water environment; a fraction of that water is lost to the atmosphere through evaporation in the drainfield.

The equation used to estimate household consumptive indoor water use is:

60 gpd per person x 2.5 people per house x 0.10 CUF

This results in an indoor consumptive water use of 15 gallons per day per well. This equates to 5,475 gallons per year (0.017 AFY[35]) (0.000023 cfs[36]).

New outdoor consumptive water uses

Most outdoor water is used to irrigate lawns, gardens, orchards and landscaping, and may include water for livestock. To a lesser extent, households use outdoor water for car and pet washing, exterior home maintenance, pools, and other water-based activities. Water from outdoor use does not enter onsite sewage systems, but instead infiltrates into the ground or is lost to the atmosphere through evapotranspiration.[37]

The WRIA 14 Committee used aerial imagery to measure the irrigated areas of 80 randomly selected parcels of a stratified sample served by PE wells to develop an average outdoor irrigated area. This analysis returned a large portion of parcels with no visible irrigation, which were given irrigated area values of zero. In order to address uncertainty in the analysis, the WRIA 14 Committee replaced the zero values with a value of 0.05 acres to account for potential outdoor water use other than irrigation. Taking that assumption into account, the average irrigated area for the 80 parcels was 0.10 acres. This analysis was determined to result in the most likely outdoor consumptive use estimate for WRIA 14, and will be used as the target offset to compare to offsets from projects. The WRIA 14 Committee then conducted a statistical confidence level analysis on the results. The 95 percent upper confidence limit yielded an irrigated area of 0.14 acres, representing a conservative estimate of the average irrigation area (i.e., there is a 95 percent probability that the true average irrigated area is less than 0.14 acres). This method is further summarized in Appendix H. A higher consumptive use estimate based on this value is included in the plan as a goal that represents successful achievement of NEB through adaptive management. The Committee considers this analysis as a way to account for other uncertainties such as future growth, and climate change.

Thurston County: https://www.ofm.wa.gov/washington-data-research/county-and-city-data/thurston-county

[35] Acre-foot is a unit of volume for water equal to a sheet of water 1 acre in area and 1 foot in depth. It is equal to 325,851 gallons of water; 1 acre-foot per year is equal to 893 gallons per day.

[36] Cubic feet per second (cfs) is a rate of the flow in streams and rivers. It is equal to a volume of water 1 foot high and 1 foot wide flowing a distance of 1 foot in 1 second; 1 cubic foot per second is equal to 646,317 gallons per day.

[37] NEB Guidance, Page 19, Ecology 2019 https://fortress.wa.gov/ecy/publications/documents/1911079.pdf

The WRIA 14 Committee used the following assumptions, recommended in Appendix A of the NEB Guidance, to estimate outdoor consumptive water use:

- Crop irrigation requirements (IR) for turf grass according to Washington Irrigation Guide (WAIG) (NRCS-USDA 1997): a weighted average of 18 inches of irrigation for the Grapeview (18.8 inches), Shelton (17.8 inches), and Olympia (16.5 inches) WAIG stations. This value was used to estimate the amount of water needed to maintain a lawn.
- An irrigation application efficiency (AE) to account for water that does not reach the turf: 75 percent. This increases the amount of water used to meet the crop's irrigation requirement by 25 percent.
- Consumptive use factor of 0.8, reflecting 80 percent consumption for outdoor use. This means 20 percent of outdoor water is returned to the immediate water environment.
- Outdoor irrigated area based on existing homes using PE wells: 0.10 acres (0.14 acres was used for the higher consumptive use estimate as a goal to achieve through adaptive management)

The equation used to estimate household consumptive outdoor water use is:

$$\frac{1.5\ feet\ per\ year * 0.10\ acres * 0.80\ CUF}{0.75\ AE}$$

First, water loss is accounted for by dividing the irrigation requirement by the application efficiency. Next, the total water volume used to maintain turf is multiplied by the area irrigated. Finally, the volume of water is multiplied by 80 percent to produce the outdoor consumptive water use.

This results in 0.16 AF per year (52,136.15 gallons per year) (0.000221 cfs) average outdoor consumptive water use per PE well for the WRIA based on 0.10 acres used for the most likely consumptive use estimate. Using 0.14 acres used in the higher adaptive management consumptive use estimate, this results in 0.22 AF per year (72,990 gallons per year) (0.00031 cfs). This is an average for the year, however the Committee expects that more water use will occur in the summer. The outdoor consumptive use varies by subbasin due to varying temperature and precipitation across the watershed.

4.3.2 Uncertainties and Limitations

The uncertainties and limitations are discussed here to provide transparency in the planning process and deliberations of the Committee, and to evaluate the range of outcomes that could occur in the future.

To reduce uncertainty, the WRIA 14 Committee relied on existing data to the extent possible, such as the average number of people per household, or information from other studies that estimate average indoor water use per person. However, it was recognized by the Committee that the method is based on historical and current water use, and future indoor water use may

vary based on a variety of factors. For example, water conservation may result in indoor water use becoming more efficient over time.

The outdoor consumptive use calculation contains more uncertainty than indoor consumptive use calculations, because it is based on four different factors and represents close to 90% of water usage. The average outdoor irrigated area analysis was limited to a sample size of 80 parcels distributed by location and property values. Also, the interpretation of irrigated areas from aerial photos is subject to error. Some Committee members voiced concern over these uncertainties in the outdoor irrigated area analysis. To help address the potentially limited sample size, the Committee estimated the error margin achieved with the 80 parcels, and determined that it was approximately 0.03 acres (i.e., the arithmetic average of 0.07 acres, which was the initial averaged irrigated area, has an error margin of 0.03 acres). Applying this error margin increased the irrigated area to 0.11 acres. Also, the Committee calculated the 95 percent upper confidence of the irrigated area average. The 95 percent upper confidence limit was 0.14 acres. The 95 percent upper confidence limit represents an upper estimate of the mean that has a 95 percent probability of being less than that upper limit (i.e. an over estimate of irrigated area that would likely result in a more conservative consumptive use estimate). The Committee generally agreed by consensus that future outdoor irrigation amounts for new permit-exempt connections will most likely fall below the estimate based on the 95 percent confidence limit (0.14 acres).

Potential bias in methodology was investigated in a comparability study with another consultant, GeoEngineers (Appendix H). Methods used by GeoEngineers in WRIAs 9 and 10 were compared to HDR's methods (as used in WRIA 14) for the same parcel images. HDR's method was found to be lower than GeoEngineers by 0.05 to 0.06 acres. The finding of the comparability study was that while the method is subject to error and the results varied between the two analyses, the variation of the results in the two analyses was inconclusive in terms of accuracy and the difference between analysists were not large enough to warrant any revisions to the estimates. However, since the HDR estimate were low, relative to the GeoEngineers estimates, the Committee used the 95% upper confidence limit of the results of this analysis (estimated by HDR) to develop the higher adaptive management CU goal account for uncertainty.

Uncertainty associated with method detection of irrigated areas in aerial photos was addressed by assigning a minimum value of 0.05 acres to the 80 parcels used to calculate the average irrigated area. When this minimum value was applied, the average irrigated area increased to 0.10 acres. This acreage was selected by the Committee for consumptive use calculations. More information on uncertainties on these methods can be found in Appendix H.

Other factors of uncertainty in the outdoor consumptive use calculation are the assumptions about irrigation amounts and irrigation efficiencies. The calculation assumes that homeowners water their lawns and gardens at the rate needed for commercial turf grass (i.e., watering at rates that meet crop irrigation requirements per the Washington Irrigation Guide). The irrigated area analysis demonstrated that many people irrigate their lawns enough to keep the grass alive through the dry summers, not at the levels that commercial turf grass requires. The method also assumes that residential irrigation has an efficiency of 75 percent. This assumes

that an additional 25 percent of the water needed to grow the lawn turf is used, because of watering inefficiency.

Another source of uncertainty is that climate change is expected to create longer, hotter, drier growing seasons, which may raise evapotranspiration and increase dry season water demands.[38]

In order to help reduce uncertainty for the Committee when considering both the USGS Groundwater Model and the Irrigation Area Methods regarding consumptive use, the Skokomish Tribe and Aspect Consulting conducted an assessment of how, or if, precipitation variability across geography and time would affect outdoor irrigation consumptive use estimates in WRIA 14. The study used up to date climatological data from Ag Weather Net and PRISM to compare to values using the Irrigation Area Method. This was undertaken to address concerns that these methodologies may not be conservative enough and whether or not a "safety factor" needed to be factored in to the consumptive use analysis. This assessment can be found in the Plan Compendium. The assessment confirmed for the Skokomish Tribe that the Irrigation Area Method is a conservative estimate, eliminating the need for any safety factor for this method, however it does show that addressing climate change is critical when considering future growth.

The WRIA 14 Committee addressed the uncertainties, assumptions, and limitations in this method by using conservative assumptions, and by developing two estimates for consumptive use: "most likely" and "higher use". This Committee prefers this approach, because it gives assurance that if sufficient projects are implemented to offset these consumptive use estimates, those projects will offset actual water use.

4.3.3 Summary of Consumptive Use Estimates

Of the methodologies presented to address uncertainty in the calculations of consumptive use, the Committee agreed by consensus on two estimates for WRIA 14: a "most likely" estimate and a higher estimate as a goal to achieve through adaptive management. Both are based on the assumption to assign a minimum value of 0.05 aces to the 80 parcels used to calculate the average irrigated area. The most likely estimate is based on an irrigated area of 0.10 acres, while the higher use estimate is based on an irrigated area of 0.14 acres (the 95 percent upper confidence limit of the average irrigated acres). These were applied to the calculations to determine indoor, outdoor, and total consumptive use estimates by subbasin (Table 6). The total consumptive use estimates for WRIA 14 are 759 AF per year (1.05 cfs) for the most likely estimate, and 1,034 AF per year (1.43 cfs) for the higher adaptive management goal. The total consumptive use estimates for WRIA 14 are calculated as the number of PE wells projected (see Section 4.2) multiplied by the total indoor and outdoor consumptive use per PE well. Table 6 summarizes the estimated indoor and outdoor consumptive use by subbasin for WRIA 14. The

[38] See https://climatetoolbox.org/ for more information on climate data.

highest consumptive use is expected to occur in the subbasin with the most anticipated new PE wells, as presented in Figure 3: PE well growth by subbasin.

Table 6: WRIA 14 Estimated PE Well Projects and Indoor and Outdoor "Most Likely" Consumptive Use Estimates by Subbasin, 2018-2038[39], in acre-feet per year[40]

			Assumed Irrigated Acreage of 0.10 Acre (Most Likely Estimate)		**Assumed Irrigated Acreage of 0.14 Acre (Higher Adaptive Management Goal)**	
Subbasin	**Projected PE wells**	**Indoor CU (AF/year)**	**Outdoor CU (AF/year)**	**Total CU/year (AF/year) in 2038**	**Outdoor CU (AF/year)**	**Total CU/year (AF/year) in 2038**
Case	512	8.6	81.9	90.5	114.7	123.3
Goldsborough	546	9.2	87.4	96.5	122.3	131.5
Harstine	143	2.4	22.9	25.3	32.1	34.5
Hood	117	2.0	18.7	20.7	26.2	28.2
Kennedy	588	9.9	94.0	103.9	131.6	141.5
Mill	466	7.8	74.6	82.4	104.4	112.2
Oakland	1,559	26.2	249.4	275.6	349.2	375.4
Skookum	363	6.1	58.1	64.2	81.3	87.4
TOTAL	**4,294**	**72**	**687**	**759.2**	962	**1,034.0**

[39] The WRIA 14 Committee has determined that an area of 0.10 irrigated acres result in the most likely outdoor consumptive use estimate for WRIA 14, and will be used as the target offset to compare to projects. The analysis based on an area of 0.14 irrigated acres is included in the plan as a higher goal to achieve through adaptive management.

[40] 1 acre foot per year is equivalent to 0.0014 cfs, or 892.74 gallons per day

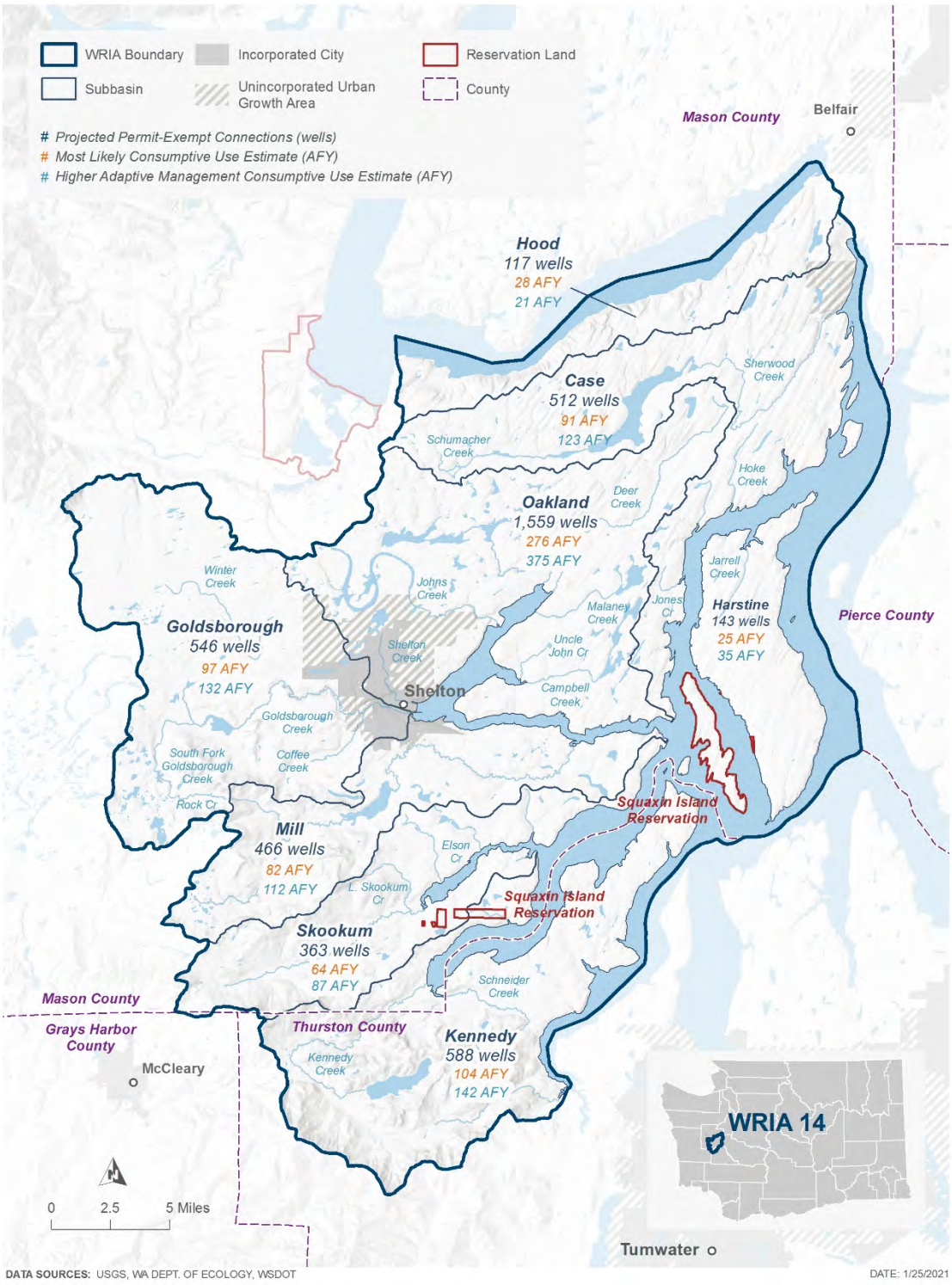


Figure 4: WRIA 14 Estimated Consumptive Use by Subbasin 2018-2038

Chapter Five: Projects and Actions

5.1 Description and Assessment

Watershed plans must identify projects that offset the potential impacts future PE wells will have on streamflows and provide a net ecological benefit (NEB) to the WRIA.[41] This chapter provides recommendations from the WRIA 14 Committee for projects to offset consumptive use and meet NEB[42] and describes water offset projects and habitat projects. Water offset projects have a quantified streamflow benefit and contribute to offsetting consumptive use. Habitat projects contribute toward achieving NEB by improving the ecosystem function and resilience of aquatic systems, supporting the recovery of threatened or endangered salmonids, and protecting instream resources including important native aquatic species. Habitat projects included in this plan were selected for their potential to result in an increase in streamflow, but the water offset benefits for these projects is difficult to quantify. Therefore, this watershed plan does not rely on habitat projects to contribute toward offsetting consumptive use.

To identify the projects summarized in this chapter, as well as the complete project inventory in Appendix J, Committee members and WRIA 14 partners brought project suggestions forward to the workgroup and Committee for discussion. Ecology and the technical consultants also identified projects with potential streamflow benefit from the Puget Sound Action Agenda near term actions, salmon recovery lead entity four-year work plans, streamflow restoration grant applications, and public works programs. The Committee used a project inventory to capture and track all project ideas, no matter their phase of development, throughout the planning process. To receive feedback on projects on alignment with other planning processes and identify any projects of concern for inclusion in the WRE Plan, the WRIA 14 Committee engaged the salmon recovery lead entity in WRIA 14. At any point in the process, Committee members or WRIA 14 partners could identify projects of concern for inclusion in the WRE Plan and recommend removal of the project from the project inventory. Where possible, project sponsors have been identified for projects and were engaged during project development.

[41] The NEB Guidance defines "projects and actions" as "General terms describing any activities in watershed plans to offset impacts from new consumptive water use and/or contribute to NEB." (Ecology, 2019b, page 5) This watershed plan uses the term "projects" for simplicity to encompass both projects and actions as defined by the NEB guidance.

[42] In 2015 the State Supreme Court issued a decision on Foster v. Ecology, City of Yelm, and Washington Pollution Control Hearings Board. The decision, frequently referred to as the "Foster decision," reaffirmed and reinforced that instream flows adopted in a rule must be protected from impairment. The Legislature established the Joint Legislative Task Force on Water Resource Mitigation (Task Force) in RCW 90.94.090 to understand impacts of the 2015 Foster decision. In that law, Ecology is authorized to issue permit decisions for up to five water mitigation pilot projects using a stepwise mitigation approach that can include out of kind mitigation. The City of Port Orchard is one of the entities undertaking a pilot project. As of January 2020, the pilot project work is still ongoing. More information about the Task Force, including their 2019 report to the legislature, can be accessed on their webpage: http://leg.wa.gov/JointCommittees/WRM/Pages/default.aspx. (Ecology, 2020b)

Based on initial information available on projects, the Committee identified a subset of projects that showed promise for quantitative streamflow benefits and prioritized these for further analysis. The technical consultants developed detailed analyses on the subset of projects and the Committee determined the offset value to attribute to each project. This chapter presents summaries of those projects.

Technical consultants provided support to identify water right acquisition opportunities for WRIA 14. In coordination with the Committee, technical consultants narrowed down the list of opportunities. The Committee provided input on the revised list of projects to develop a focused list of water rights for future opportunities such as full or partial acquisition or efficiency projects; however no specific water rights were identified for acquisition. The Committee acknowledged that only the consumptive use portion of the water right that is put to beneficial use could contribute to a water offset in the future. This work shows the annual quantity (Qa) of water rights from the focused list, and acknowledges that only a portion of that would equate to consumptive use. Before these rights are acquired and put into Trust, they will go through a full extent and validity analysis to determine the consumptive use offset component. As these analyses cannot happen until the owners of the rights have agreed to sell, the Committee is relying on the evaluations of the technical consultant to estimate the offset volumes described in section 5.2.

For projects that did not provide a quantifiable streamflow benefit, the WRIA 14 Committee chose not to invest the same level of technical consultant resources to further develop the projects during this planning period as they did for the water offset projects. Information presented on these projects is based on available information from WRIA 14 partners. The Committee focused the technical resources and expertise on finding projects that provide quantifiable offset benefits.

The projects identified in this plan are consistent with the project type examples listed in the Final NEB Guidance: (a) water right acquisition offset projects; (b) non-acquisition water offset projects; and (c) habitat and other related projects (Ecology 2019b). This watershed plan presents projects in the following three categories:

I. Likely to be implemented and provide quantitative streamflow benefits.

II. Likely to be implemented and provide habitat benefit and/or unquantifiable streamflow benefits.

III. Unable to be implemented at this time because the project is highly conceptual or has other constraints.

Projects in Category I and II are presented in this chapter. Prospective projects are also presented in this chapter and may be defined as category I or II projects, once further developed during plan implementation. All other projects are presented in the project inventory in Appendix J. The WRIA 14 Committee recommends implementation of projects in this chapter as well as in Appendix J in order to meet the offset need and NEB for WRIA 14.

As described in Chapter 6, the WRIA 14 Committee supports the development of an implementation group to further develop projects. Priorities of this group may include working

with project sponsors on project implementation, providing guidance for project monitoring, supporting development of feasibility studies, and supporting adaptive management.

5.2 Category I Projects with Quantifiable Streamflow Benefit

The WRIA 14 Committee set the goal of meeting the overall WRIA-scale consumptive use target. The WRIA 14 Committee set a secondary goal of offsetting consumptive use in each subbasin. The projects presented below have quantifiable streamflow benefit and the Committee identified these projects as having the greatest potential for implementation and achieving the required offset need. Detailed descriptions of each of the projects presented in this section are available in Appendix I. A summary of projects and offset benefits by subbasin are presented at the end of this section in Tables 7 - 8.

5.2.1 WRIA-wide Projects

5.2.1.1 Managed Aquifer Recharge Projects in WRIA 14

Managed aquifer recharge (MAR) projects divert, convey, and infiltrate peak seasonal river flows in engineered facilities that are in connection with the local alluvial aquifer that the donor stream or river is also in connection. To ensure that flows would be diverted in quantities that would not reduce habitat suitability for salmonids or reduce habitat forming processes, a couple different methods were used to estimates flow rates. If minimum flows have been designated, then the flow rate was estimated as less than two percent of minimum flows. However, on Kennedy Creek, where minimum flows have not been designated, a diversion of 1 cfs was used, which would be less than 2% of average wet season flows. Seepage back into the river would result in attenuation of these flows, increasing base flows across a broader time period, including the late summer and early fall, when flows are typically the lowest, and water demand for consumptive use is the highest. MAR projects are proposed for the following streams:

- Kennedy Creek
- Mill Creek
- Skookum Creek
- Goldsborough Creek
- Johns Creek
- Cranberry Creek
- Sherwood Creek

MAR projects in WRIA 14 have been identified through analysis by the technical consultants to identify potential suitable locations and are estimated to have a total potential water offset of 910 acre-feet per year (AFY). Due to uncertainties in the likelihood of projects being built and the benefits being realized (including the timing of streamflow benefits), the Committee chose to reduce the initial 910 AFY estimate of benefits from MAR projects. Consequently, the Committee determined that a reasonable offset estimate to claim for the purposes of this plan

is 273 AFY (i.e. thirty percent of the estimated 910 AFY total), accounting for uncertainties such as likelihood of implementation and timing of streamflow benefits (Table 7). The Committee supports future feasibility studies within WRIA 14 for MAR projects to further develop this information. Explanation and potential offset quantities for MAR projects in each stream are described in the following subbasin sections. A detailed project description is available in Appendix I.

The WRIA 14 Committee acknowledges that some diversion methods including in-channel structures may pose an impact to fish habitat, and strongly advocates for the use of diversion methods that do not include in-channel structures. For example, diverted water could be conveyed through a collector well adjacent to the river (e.g. Ranney Collector well). The WRIA 14 Committee suggests that projects should be specifically designed to enhance streamflows and to avoid a negative impact to ecological functions and/or critical habitat needed to sustain threatened or endangered salmonids.

Thurston County and Mason County have indicated that they would be the likely project sponsors of MAR projects within their respective county boundaries, in coordination with project partners and implementation groups, pending feasibility studies and land ownership.

5.2.1.2 Water Right Opportunities

The WRIA 14 Committee supports the full and partial acquisition of water rights to increase streamflows and offset the impacts of PE wells. Water rights should be permanently and legally held by Ecology in the Trust Water Rights Program to ensure that the benefits to instream resources are permanent. The WRIA 14 Committee acknowledges that all water right transactions rely on willing sellers and willing buyers. The WRIA 14 Committee recognizes the importance of water availability for producers and the limited available water supply.

The WRIA 14 Committee has identified a focused list of water rights for potential future investigation by WRIA 14 implementation partners, which can be found in Appendix I.

Water right opportunities are proposed for the following subbasins, and the amount of offset benefit by subbasin is shown based on the assumption of claiming 10% of the total Qa from the focused water rights list:

- Goldsborough: 34 AFY
- Hood: 31 AFY
- Mill: 30 AFY
- Oakland: 16 AFY

Based on the focused list of water rights, the Committee estimates that future feasibility studies or acquisition and efficiency opportunities may lead to a total estimated offset of 111 AFY (Table 7). The Committee supports future investigations of water rights for all water users, including commercial/industrial water right holders, to develop information on extent and validity of water rights for future project opportunities.

5.2.2 Case Subbasin

5.2.2.1 Managed Aquifer Recharge Project in Sherwood Creek

An MAR project (as described in the WRIA-wide Projects section above) is proposed for Sherwood Creek (Appendix I). Sherwood Creek flows from Mason Lake. Average monthly flows for Sherwood Creek at Sherwood Cr Rd. range between 79 - 144 cfs between November and April. Water could be diverted from the downstream end of Mason Lake and conveyed to an MAR site directly downstream of the lake outlet. An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) is proposed over this period. At least 72 days are likely to be above minimum instream flows during this period, while still accommodating a 1 cfs diversion, resulting a potential water offset of 143 AFY. The Committee has conservatively claimed thirty percent of this water offset, or 43 AFY (Table 8).

5.2.3 Goldsborough Subbasin

5.2.3.1 City of Shelton Reclaimed Water

The City of Shelton (City) proposes to increase the quantity and rate of reclaimed water infiltration into the North Fork Goldsborough subbasin by increasing production of Class A reclaimed water (RW) and infiltrating this to groundwater at the City RW spray field, near the Washington Corrections Center (WCC). This project will re-direct an annual average of 560 AFY of the City's wastewater in North Shelton from the City's Wastewater Treatment Plant (WWTP) to the City's Water Reclamation Plant (WRP). The additional flow will be treated to produce 560 AFY of RW for subsequent conveyance to the existing City spray field. The following infrastructure improvements will need to occur to facilitate this project:

- Conveyance of North Shelton wastewater to the WRP.
- A storage tank (0.750 million gallons per day) to store RW at the WRP.

The conveyance of North Shelton wastewater to the WRP is currently in its design phase, and is likely to include a sewage lift station, and 18-inch sewer main that would run from West Birch Street to reclaimed water satellite plant (approximately 9,000 linear feet). The RW storage tank will buffer variable production and use of RW. RW produced from City wastewater may be used for City uses, including a backup for firefighting, and it allows strategic timing of application of reclaimed water to the ground to benefit aquifers and streams and wetlands. Streamflow restoration funds are currently supporting design options for the lift station, sewer main, storage tank, and cost estimates. The additional RW will be conveyed to the City's existing spray field near the WCC with and infiltrated to local groundwater. Assuming an infiltration efficiency of 80%, this would result in about 448 AFY of water being infiltrated into the local aquifer.

The second component of this project is the use of RW at the WCC. The WCC proposes to use RW to irrigate their outdoor lawn, instead of water that they currently pump from their local well. Pumping from their local well has been shown to impact instream flows in the North Fork Goldsborough Creek. Assuming an infiltration efficiency of 80%, this would result in about 38

AFY of additional RW being infiltrated to the local aquifer. Both project components sum to a potential water offset of 486 AFY (Tables 7 – 8).

5.2.3.2 Managed Aquifer Recharge Project in Goldsborough Creek

An MAR project (as described in the WRIA-wide Projects section) is proposed for Goldsborough Creek (Appendix I). Soils and geology are favorable for MAR sites near Goldsborough Creek at multiple locations. Average monthly flows for Goldsborough Creek at S. 7th Street (USGS gage 12076800) range between 196 – 341 cfs between November and April. An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. At least 166 days are likely to be above minimum instream flows during this period, while still accommodating a 1 cfs diversion, resulting a potential water offset of 329 AFY. The Committee has conservatively claimed thirty percent of this water offset, or 99 AFY (Table 8).

5.2.4 Harstine Subbasin

No water offset projects are identified for the Harstine Subbasin.

5.2.5 Hood Subbasin

5.2.5.1 Managed Aquifer Recharge Project in the Hood Subbasin

MAR projects (as described in the WRIA-wide Projects section) may be proposed for streams in the Hood Subbasin during plan implementation. The Committee supports MAR projects in this subbasin, if there is a suitable stream and MAR infiltration basin that would benefit low seasonal flows.

5.2.6 Kennedy Subbasin

5.2.6.1 Managed Aquifer Recharge Project in Kennedy Creek

An MAR project (as described in the WRIA-wide Projects section) is proposed for Kennedy Creek (Appendix I). Kennedy Creek could have an MAR site(s) at near the outlet of Summit Lake or at approximately River Mile (RM) 5. Both of these areas are forested and have suitable geology and soils for infiltration. Average monthly flows near the mouth of Kennedy Creek range between 92 – 119 cfs between November and March. Since no minimum flows are set for Kennedy Creek, the average flows were used as a basis for setting diversion flow quantities. An MAR diversion of 1 cfs between November and March equates to less than 2% of average wet season flows. A conservative estimate of 40 days (a third of the time) is estimated to be above these average flows, while still accommodating a 1 cfs diversion. This would result in a 79 AFY water offset. The Committee has conservatively claimed thirty percent of this water offset, or 24 AFY (Table 8).

5.2.6.2 Schneider Creek Source Switch

The Schneider Creek Source Switch Project would replace an agricultural surface water diversion on Schneider Creek with a groundwater source. By shifting irrigation withdrawals to a groundwater source, the effect of those irrigation withdrawals on Schneider Creek would be much less. However, by pumping groundwater as opposed to surface water, the pumping effect on Schneider Creek may affect surface flows year round. This lesser but more attenuated

impact on stream flow is not currently consistent with Washington State water law. Chapter 173-514 WAC places a seasonal closure on Schneider Creek May 1 through October 31, but the existing water right specified that all the surface water withdrawals must stop on October 1. If future groundwater pumping was to stop on that date, the effects of groundwater pumping would continue into the month of October and affect streamflow during part of the closed period. Therefore, no water offset credit is currently being claimed for this project. However, if this aspect of Washington State Water law could be modified during plan implementation, the Committee would like to implement this project for water offset credits (Table 7).

5.2.6.4 Steamboat Middle

The Steamboat Middle project consists of expanded water storage in an existing forested/non-forested wetland. The project would expand water storage in a low-lying area between elevation of 114 and 118 ft. Some additional habitat may be created from this project as well as an expansion of wetlands as a result of additional water storage area. Conceptually, this project could provide infiltration of 14 to 61 AFY and would require quantification as part of a feasibility study. The WRIA 14 Committee is conservatively claiming 14 AFY of offset benefit (Table 8).

5.2.7 Mill Subbasin

5.2.7.1 Managed Aquifer Recharge Project in Mill Creek

An MAR project (as described in the WRIA-wide Projects section) is proposed for Mill Creek (Appendix I). Soils and geology are favorable for MAR sites immediately downstream of Isabella Lake. This location would be useful, in terms of providing cool groundwater recharge downstream of the lake. Average monthly flows for Mill creek at Highway 3 range between 81 - 153 cfs between November and April. An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. There were between 86 - 128 days when flows were above minimum instream flows, while still accommodating a 1 cfs diversion, resulting a potential water offset of 171 – 254 AFY. At least 86 days are likely to be above minimum instream flows during this period, while still accommodating a 1 cfs diversion, resulting a potential water offset of 171 AFY. The Committee has conservatively claimed thirty percent of this water offset, or 51 AFY (Table 8).

5.2.8 Oakland Subbasin

5.2.8.1 Evergreen Mobile Home Estates Water Rights Acquisition

Evergreen Mobile Home Estates (Evergreen Estates) Group A water system (PWSID# 24154) has been issued a compliance order to install CT6 disinfection (i.e. chlorination) to address failing on-site wastewater systems in close proximity to its wells. As an alternative to CT6 treatment, Evergreen Estates is considering connection to the City of Shelton's (City's) water system and abandoning its existing wells. The City has been pursuing consolidating the Evergreen Estates with the City drinking water system and conducted a feasibility study to identify infrastructure improvements necessary for this to occur. The water system consolidation would result in the water rights of the Evergreen Mobile Estates Group A system no longer being unused. A water

offset benefit would occur if that water right was placed into permanent trust, per RCW 90.42. The City conducted a feasibility Study and estimated their likely annual water use to be 7.2 AFY. Therefore, if the City provided water to the Evergreen Estates, and the existing water right were to be placed into permanent trust, the water offset value would be 7.2 AFY (Tables 7 – 9).

The Evergreen Estates installed five new sewer septic systems and a chlorination system at the wells. The property owner has indicated that the State has accepted their plan for onsite septic and chlorination improvements and that no further action on their part is needed. However, water system consolidation could still occur, and may be incentivized if the Evergreen Estates consolidation costs were covered by others or with grant funding.

5.2.8.2 Managed Aquifer Recharge Project in Johns Creek and Cranberry Creek

MAR projects (as described in the WRIA-wide Projects section) are proposed for Johns Creek and Cranberry Creek (Appendix I). Average monthly flows for Johns Creek at Hwy 3 range between 81 – 153 cfs between November and April. An MAR diversion of 0.5 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. At least 36 days are likely to be above minimum instream flows during this period, while still accommodating a 0.5 cfs diversion, resulting a potential water offset of 36 AFY. The Committee has conservatively claimed thirty percent of this water offset, or 11 AFY (Table 8).

Average monthly flows for Cranberry Creek at Highway 3 range between 48 - 99 cfs between November and April. An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. At least 35 days are likely to be above minimum instream flows during this period, while still accommodating a 1 cfs diversion, resulting a potential water offset of 69 AFY. The Committee has conservatively claimed thirty percent of this water offset, or 21 AFY (Table 8).

5.2.9 Skookum Subbasin

5.2.9.1 Managed Aquifer Recharge Project in Skookum Creek

An MAR project (as described in the WRIA-wide Projects section) is proposed for Skookum Creek (Appendix I). Skookum Creek has unfavorable soils for MAR infiltration along much of its stream alignment. However, there are some small areas of suitable geology and soils in the headwaters and near the confluence with Kamilche Creek. Average monthly flows at Highway 101 range between 57 – 140 cfs between November and April. Assuming that flows are similar downstream of Kamilche Creek, an MAR diversion of 0.5 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. Between 84 - 131 days were above minimum instream flows, while still accommodating a 0.5 cfs diversion, resulting a potential water offset of 83 – 130 AFY. At least 84 days are likely to be above minimum instream flows during this period, while still accommodating a 0.5 cfs diversion, resulting a potential water offset of 83 AFY. The Committee has conservatively claimed thirty percent of this water offset, or 25 AFY (Table 8).

Table 7: Category I and Prospective Projects with Quantifiable Streamflow Benefit.

Project Type	Project Name	Project Description	Subbasin	Estimated Water Offset (AFY)[43]	Offset Claimed by WRIA 14 Committee (AFY)	Timing of Benefits	Project Sponsor	Estimated Project Cost[44]	Readiness to Proceed
Category I	City of Shelton RW/ WCC Source Switch	Re-direct North Shelton wastewater to WRP and infiltrate Class A reclaimed water at existing spray field near the WCC	Goldsborough	486	486	Year-round	City of Shelton	$8.8M	High
Category I	Evergreen Mobile Estates	Water system consolidation and water right acquisition	Oakland Bay	7	7	Year-round	City of Shelton	$474,000	Low
Category I	MAR	Install managed aquifer recharge facilities	Multiple	910	273	Year-round	Mason County/Mason PUD 1/ Thurston County/WRIA 14 Implementation Partners[45]	$3.1 M	Low
Category I	Water Right Opportunities	A focused WRIA-wide analysis on potential WR efficiencies and acquisition for future studies and implementation	Goldsborough, Hood, Mill, Oakland	1,112	111	Year-round	WRIA 14 Implementation Partners	$285,000	Low
Category I	Steamboat Middle	Surface water retention and infiltration	Kennedy	14	14	Year-round	Thurston County	$1 M	Low

[43] 1 acre foot per year is equivalent to 0.0014 cfs, or 892.74 gallons per day
[44] Costs are based on offset claimed by the Committee and are based on order of magnitude estimates.
[45] The WRIA 14 Committee supports the development of an implementation group to further develop projects

Prospective	Schneider Creek Source Switch[46]	Source switch from surface water ground water	Kennedy	64	0	n/a	Thurston County	n/a	Low
Prospective	Summit Lake Water System	Future potential source switch for local domestic water supply	Kennedy	24-133	0	n/a	Thurston County	n/a	Low
Prospective	Mason Co Rooftop Runoff	New county requirement for new rural residential building to install LID BMPs that infiltrate over 95% of rooftop runoff.	All	249	0	Year-round	Mason County	$0[47]	High
	WRIA 14 Total Water Offset for WRIA 14 Projects			**2,866-2,975**	**891**				
	WRIA 14 Consumptive Use Estimate			**759**					
	WRIA 14 Higher Adaptive Management Consumptive Use Goal			**1,034**					

[46] The Schneider Creek Source Switch project currently conflicts with the Foster Supreme Court Decision, and would only be implemented pending legislative changes to allow for such projects to move forward; however, the Committee supports implementation of this project and has estimated the potential future offset quantity should this project be implemented.

[47] At this time, all estimated project costs are expected to be included in costs of construction for new homes, which would range from $3,780-$9.300 per home – a total of ~$17 million for proposed project.

Table 8: Water Offsets claimed by the WRIA 14 Committee, summed by subbasin. All values are in acre-feet per year.[48]

Subbasin	WRIA 14 Most Likely CU Estimate	WRIA 14 Higher Adaptive Mgmt CU Goal	Managed Aquifer Recharge	Water Rights	Shelton RW/WCC	Evergreen Mobile Estates	Steamboat Middle	Total
Case	90.5	123.3	43	0	0	0	0	43
Goldsborough	96.5	131.5	99	34	486	0	0	619
Harstine	25.3	34.5	0	0	0	0	0	0
Hood	20.7	28.2	0	31	0	0	0	31
Kennedy	103.9	141.5	24	0	0	0	14	38
Mill	82.4	112.2	51	30	0	0	0	81
Oakland Bay	275.6	375.4	32	16	0	7	0	55
Skookum	64.2	87.4	25	0	0	0	0	25
Total	**759.2**	**1,034.0**	**273**	**111**	**486**	**7**	**14**	**891**

[48] 1 acre foot per year is equivalent to 0.0014 cfs, or 892.74 gallons per day

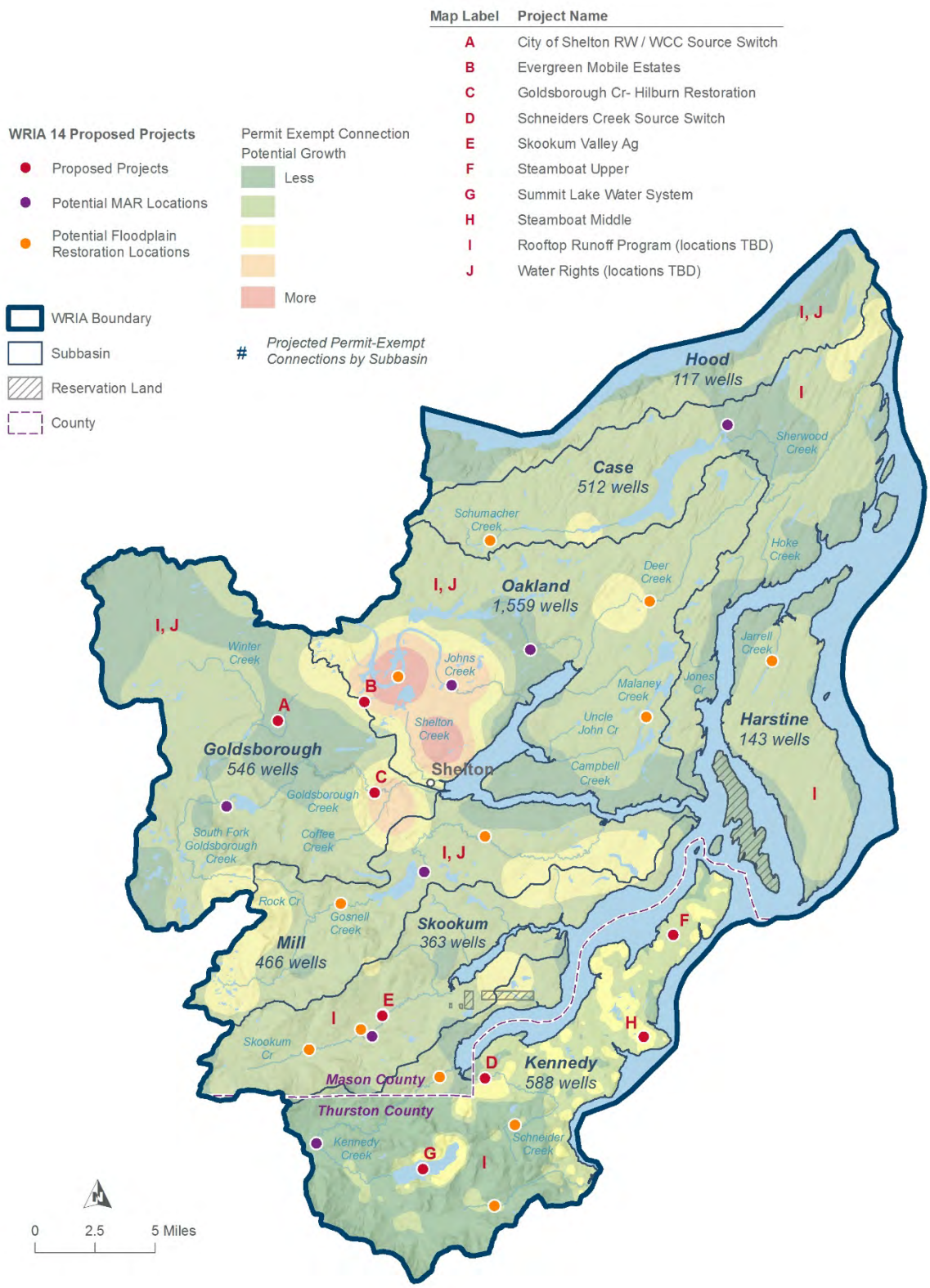


Figure 5: WRIA 14 Projects

5.3 Category II Projects that Primarily Provide Habitat Improvements

A number of habitat restoration projects, or projects with unquantifiable streamflow benefit were identified in WRIA 14. While several of these projects may produce a marginal offset benefit by increasing seasonal storage, the benefits were too small and too complex to estimate. In general, these projects increase stream complexity, reconnect floodplains, fish passage, and enhance natural processes that had been lost to the benefit of salmonids and other aquatic species. Projects are described in Table 9, and detailed project descriptions are included in Appendix I.

Table 9: Category II Projects in WRIA 14 that Primarily Provide Habitat Improvements

Project Name	Project Description	Subbasin	Anticipated Ecological Benefit	Sponsor	Estimated Cost[49]	Readiness to Proceed
Skookum Valley Ag	Channel re-alignment to increase channel length and sinuosity	Skookum	Increase floodplain connectivity; increase usable aquatic habitat area; increase fish cover; increase habitat complexity	Squaxin Island Tribe	<$1M	High
Skookum Valley Railroad Culvert Crossings	Restore fish passage at several existing barriers	Skookum	Fish passage	Squaxin Island Tribe	$1-5M	Medium
Goldsborough Cr-Hilburn Restoration	Remove bank protection and channel fill; Increase density of large woody debris	Goldsborough	Increase floodplain connectivity; increase usable aquatic habitat area; increase fish cover; increase habitat complexity	Squaxin Island Tribe	<$1M	High
Steamboat Upper	Increase ponded storage on north end of the Steamboat peninsula	Kennedy	Increase base flow in unnamed stream flowing from pond.	Thurston County	$1M	Low

[49] Costs are based on order of magnitude estimates

5.4 Categorical Projects and Prospective Projects

In addition to the projects described above, the plan identifies categorical actions that will increase water conservation throughout the WRIA, and in some cases may result in water offset benefits during plan implementation (Table 7). These categorical projects do not have specific locations yet, but would during plan implementation.

5.4.1 Water Right Opportunities

In addition to the projects described in this chapter, the WRIA 14 Committee supports projects and actions that achieve the following goals:

1. Opportunities to address irrigation efficiencies for water right holders. This may be accomplished through education, outreach, or incentive programs.
2. Acquisitions of water rights to increase streamflows and offset the impacts of PE wells. Water rights should be permanently and legally held by Ecology in the Trust Water Rights Program to ensure that the benefits to instream resources are permanent.
3. The WRIA 14 Committee acknowledges that all water rights transactions rely on willing sellers and willing buyers. The WRIA 14 Committee supports acquisition of all types of water rights, including municipal water rights. The WRIA 14 Committee recognizes the importance of water availability for farmers and the limited available water supply. The WRIA 14 Committee supports the acquisition of irrigation water rights if the properties underlying the water rights have access to an alternative water source that can be reliably supplied at rates no greater than that of current irrigation, or is otherwise agreeable to the property owner.
4. The WRIA 14 Committee recommends that opportunities for the above-mentioned projects and actions be addressed through future feasibility studies, water right investigations, etc.
5. Prioritize subbasins where the highest needs for projects exist.

The WRIA 14 Committee acknowledges the need for project sponsors, technical assistance to manage complex studies, and future funding to adequately implement projects.

A detailed summary of the water right analysis performed for the WRIA 14 Committee is included in in Appendix I.

5.4.2 Forest Stand Age

The Committee is interested in voluntary projects that involve forest conservation, forest land acquisition, carbon sequestration that can be demonstrated to have a streamflow benefit. If a project can demonstrate a streamflow benefit, it can be considered for providing an offset and NEB benefit under the plan. Due to uncertainties regarding forest management projects, the Committee chose not to count the potential offset from this project during the plan analysis. More information on this project proposal can be found in the plan Compendium.

5.4.3 Floodplain Restoration

The Committee is interested in restoring stream floodplain function, where appropriate. WRIA 14 floodplain restoration projects would address loss of groundwater storage, low flows and water quality conditions. The specific actions proposed for any given project would be specific to the restoration opportunity and habitat capacity of that location. The goal of any given project would be to rehabilitate natural hydrologic and geomorphic processes that are provided by floodplain connectivity. More detailed objectives pursuant to this goal would be specific to each respective project.

Projects will vary depending on the stream setting, habitat capacity, the impact that has occurred, and the corresponding opportunities for restoration. Potential floodplain restoration actions include the following:

- Channel re-alignment (i.e. re-meander),
- Removing bank protection,
- Installation of large wood to promote hyporheic and floodplain water storage
- Removal of fill or creation of inset floodplain (i.e. excavation of terraces),
- Side channel and off-channel feature reconnections, creation or enhancement.

Potential floodplain restoration locations were identified based on being unconfined, within a flood zone, and being vacant. Secondary considerations were given to locations that were on public land, and near tributary inflow (and therefore potentially prone to flooding).

Due to uncertainties regarding floodplain restoration, the Committee chose not to count the potential offset from this project during the plan analysis.

5.4.4 Summit Lake Water System

This project conceptually involves determining alternative solutions for safe water supply to the Summit Lake community. It involves a substantial portion of the lakefront residents of south shore drive along Summit Lake currently using surface water from the lake itself. An alternative water supply could supply water and reduce the use/demand for 235 homes on south Summit Lake Shore Drive South. Potential alternative sources include new source wells, and piping water from a public water system. A water offset benefit could occur by limiting irrigation for homes newly connected to water supply, and by retiring non-certificated permits and the retirement of certificated water rights into permanent trust. The first steps would be to conduct a feasibility study to determine the best option for a new Summit Lake community source and perform community outreach. Depending on the assumptions made, flow benefits in the Kennedy Creek subbasin may be on the order of 24-133 AFY. The potential offset benefit from this project is shown in table 7 above; however, due to all the uncertainties associated with this project and the need for feasibility and community outreach to occur, the Committee chose not to claim a water offset benefit.

5.4.5 Mason County Rooftop Runoff

Mason County has proposed a modification of the County building code to require low-impact development (LID) best management practices (BMPs) to capture of roof runoff from new rural residential (RR) development (Appendix I). Examples of LID BMPs would include dry wells, infiltration trenches, infiltration galleries, or rain gardens. The requirement would achieve 85% infiltration of runoff from a new rural residential parcel development roof for parcels on hydrologic type A and B soils (Appendix I). Parcels on hydrologic type C soils are anticipated to achieve an average of 69% infiltration of runoff from a new RR parcel development. The maximum infiltration trench size is assumed to be 620 square feet. The infiltrated runoff is assumed to be shallow groundwater recharge as an interflow contribution, with an assumed down-gradient surface water benefit to receiving waters base flow augmentation. Based on 2,766 wells apportioned to assumed full parcel buildout within the WRIA 14 Project area, this project could potentially yield a water recharge offset of 249 AFY or 0.34 cfs (Appendix I; Table 7). The technical approach used to develop these potential water offsets and associated results were reviewed and vetted with the WRIA 14 Committee.

For the purposes of the WRIA 14 watershed plan, the net infiltration recharge of rooftop runoff is equivalent to a water offset per RCW 90.94. The water offset benefits could be credited incrementally with continued RR growth under the current Mason County NPDES program status and implemented Rooftop Runoff Infiltration Program. The Mason County rainfall runoff proposal is available for a quantitative offset because it is not otherwise required by law or regulation. RCW 90.94.030(4)(a)(vi)(C) states the following: “An applicant shall manage stormwater runoff on-site to the extent practicable by maximizing infiltration, including using low-impact development techniques, or pursuant to stormwater management requirements adopted by the local permitting authority, if locally adopted requirements are more stringent.” For Mason County, the “extent practicable” is defined as the extent feasible or capable of being done or carried out with reasonable effort, taking into account the state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations. For this reason, the rooftop runoff proposal goes beyond the “extent practicable” and would not already be required on under RCW 90.94. In addition, current locally adopted requirements are not more stringent than this definition. Therefore, the project if implemented as proposed would more stringent than the “extent practicable” for Mason County and would be allowed.

In addition, Mason County is not currently covered by the MS4 Phase 2 NPDES Stormwater permit, which would require the kind of runoff infiltration proposed. Therefore, at this time the proposed project would not be required under the MS4 permit. Based on growth projections and the requirements of the law, Mason County would be required to meet the MS4 permit requirements no sooner than reaching population totals requiring regulation. According to the MS4 Stormwater Permitting Guide, an important distinction from Phase I MS4s is that not all Small MS4s are regulated. Some Small MS4s or portions of Small MS4s are not required to obtain NPDES permit coverage. A Small MS4 must obtain an NPDES permit only in two situations: if it (1) is within a Census-designated urbanized area or (2) has been designated by

the permit authority as requiring a permit. Therefore, this project would likely be in effect for the 20-year horizon required for planning, if implemented.

The Committee is not claiming any offset from this project for the purposes of the NEB evaluation because Mason County is unable to commit to implementation due to regulatory constraints. The project may be considered for implementation if these constraints are lifted, and has Committee support for future consideration. The Committee recommends that a future implementation group (described in Chapter 6) revisit this project during review of adaptive management if offset needs are not being met in WRIA 14. A detailed analysis of this project and calculation of potential offsets in provided in Appendix I for informational purposes should this project be implemented.

5.5 Project Implementation Summary

5.5.1 Summary of Projects and Benefits

As specified in Chapter 4, this plan aims to offset 759 AFY of consumptive use from new PE wells over the planning horizon based on the "most likely" consumptive use estimate. This watershed plan also provides a higher consumptive use estimate of 1,034 AFY as a goal to achieve through adaptive management. The project offset benefits claimed by the Committee and included in Table 7 provide an estimated offset of 891 AFY and exceeds the "most likely" consumptive use estimate at the WRIA scale. The project offset benefits claimed by the Committee and presented in Table 7 do not meet the higher adaptive management goal consumptive use estimate. At the subbasin scale, estimated offsets exceed both the "most likely" and higher adaptive management goal consumptive use estimates in the Goldsborough, and Hood, subbasins. Conversely, estimated offsets fall short of both the "most likely" and higher adaptive management goal consumptive use estimates in all other subbasins.

A total of four habitat projects have been identified by the Committee for their potential to provide streamflow benefits and are included in Table 9. Ecological benefits associated with these projects include floodplain restoration, wetland reconnection, availability of off-channel habitat for juvenile salmonids, increase in groundwater levels and baseflow, and increase in channel complexity. While many of these projects have potential streamflow benefits, this plan does not account for the water offset from habitat projects. The ecological and streamflow benefits from habitat projects are supplemental to the quantified water offsets. A total of five prospective projects have been identified by the Committee for their potential to provide streamflow and ecological benefits. These projects may be part of plan implementation, if they are demonstrated to be feasible.

5.5.2 Cost Estimate for offsetting new domestic water use over 20 Year Planning Horizon

Per RCW 90.94.030(3)(d), this watershed plan must include an evaluation or estimation of the cost of offsetting new domestic water uses over the subsequent twenty years. To satisfy this requirement, this plan includes planning-level cost estimates for each of the water offset

projects listed in Table 7. The plan also includes costs estimates for habitat projects in Table 9 when that information was readily available.

The estimated cost for implementing individual water offset projects range from $285,000 for Water Right Opportunities to $8.8 million for City of Shelton Reclaimed Water. The total estimated cost for implementing the water offset projects listed and described in this chapter is $13.7 million.

The estimated cost for implementing individual habitat projects range from $1-5 million, based on order of magnitude cost estimates. The total estimated cost for implementing the habitat projects listed and described in this chapter is $4-8 million.

5.5.3 Certainty of Implementation

This plan includes adaptive management and policy recommendations (see Chapter 6) to increase reasonable assurance that the projects and actions in the plan will be implemented.

The WRIA 14 Committee selected projects that have a likelihood of implementation and have support from project sponsors. As is further discussed in Chapter 6, the WRIA 14 Committee supports the continuation of an implementation group to further develop projects.

Chapter Six: Policy Recommendations, Adaptive Management, and Implementation

6.1 Policy and Regulatory Recommendations

The Streamflow Restoration law lists optional elements committees may consider including in the plan to manage water resources for the WRIA or a portion of the WRIA (RCW 90.94.030(3)(f)). The WRIA 14 Committee included "policy and regulatory recommendations" in the watershed plan to show support for programs, policies, and regulatory actions that would contribute to the goal of streamflow restoration. When similar concepts arose from multiple Watershed Restoration and Enhancement Committees, the WRIA 14 Committee coordinated with those other committees to put forward common language for inclusion in the watershed plans, when appropriate. Coordination also occurred for jurisdictions that cross multiple watersheds. All projects and actions the WRIA 14 Committee intended to count toward the required consumptive use offset or NEB are included in Chapter 5: Projects and Actions.[50]

As recommended by the NEB Guidance, the WRIA 14 Committee prepared the plan with implementation in mind. However, as articulated in the Streamflow Restoration Policy and Interpretive Statement (POL-2094), "RCW 90.94.020 and 90.94.030 do not create an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented" (Ecology 2019a).

The WRIA 14 Committee initially identified a list of potential recommendations based on proposals brought forward by members of the Committee[51]. After iterative rounds of discussion and feedback during Committee meetings, in one on one conversations, and using a survey tool, the Committee narrowed the recommendations to those presented below. Unless otherwise specified, the proposed implementing entity is not obligated by this plan to implement the recommendation; however, the WRIA 14 Committee requests consideration of each recommendation by the identified implementing entity. Additional information on assurance of implementation has been provided by many entities in section 6.3.2. The identification and listing of these policy and regulatory recommendations is directly from the WRIA 14 Committee members and is not endorsed or opposed by Ecology.

[50] "New regulations or amendments to existing regulations adopted after January 19, 2018, enacted to contribute to the restoration or enhancement of streamflows may count towards the required consumptive use offset and/or providing NEB." Streamflow Restoration Policy and Interpretive Statement, POL-2094

[51] Initial policy proposals are included in the Plan Compendium.

The WRIA 14 Committee provides the following recommendations. Please note that these are not listed in order of priority:

1. Track the number and location of permit-exempt wells

Proposed implementing entity: Department of Ecology

Recommendation: Update Department of Ecology's well tracking system to better track the number and location of permit-exempt wells in use. This update would include the following:

- Collect latitude and longitude of wells on well report forms;
- Identify permit-exempt wells on well log form; and
- Provide electronic Well ID Tag numbers to older wells, and associate well decommissioning, replacement, or other well activities with the Well ID Tag.

Purpose: Accurate tracking of the locations and features of permit-exempt wells will support the WRIA 14 Committee's desire to engage in monitoring and adaptive management after plan adoption.

Funding source: If Ecology does not have capacity do this work with existing staffing and resources, the Committee recommends the legislature provide additional funding.

Additional Resources: The full proposal for this recommendation is included in Appendix M

2. Monitoring and Research

Proposed implementing entity: Multiple agencies would likely be involved in monitoring. Ecology would coordinate the development of the strategy.

Recommendation: Develop and implement a research and monitoring strategy for WRIA 14 that may include the following:

- Streamflow monitoring
- Groundwater monitoring
- Groundwater modeling
- Precipitation and drought conditions
- Land use changes
- Water consumption and water supply data

Purpose: The WRIA 14 Committee desires comprehensive monitoring data on the overall health of the watershed, including status and trends.

Funding source: Funding is needed either through legislative appropriations, grants, pooling of resources by Committee members and other stakeholders, or other means.

3. Revolving Loan and Grant Fund for Community Water Systems

Proposed implementing entity: Thurston and Mason Counties

Recommendation: Investigate the feasibility of establishing and operating a revolving loan/grant fund to offset the costs of connecting to Group A public water systems. Funding would be available when the cost of connecting to a Group A system is higher than creating a new permit-exempt well, creating an economic barrier for applicants. Feasibility would be determined by criteria set for the provider and applicant (such as the availability of a sufficient water right; consistency with the relevant Water System Plan).

Purpose: This would reduce barriers to connecting to Group A systems, thereby reducing the number of projected new permit-exempt wells and reducing groundwater consumptive use.

Funding source: Funding would be needed to develop and manage the program and to provide seed money to the revolving fund. Potential funding sources have not been identified.

4. Mason County-Wide Conservation Outreach Program

Proposed implementing entity: Mason Conservation District and Mason County, with support from the Squaxin Island Tribe

Recommendation: Develop a program for all water users in Mason County to provide water conservation education incentives (mailers, websites, special events, tables at community events, free low flow indoor and outdoor fixtures, rain barrels, xeriscapes, etc.) Measurements of success could be included, such as a certification program, use of signage, the number of conservation items installed, or other methods.

Purpose: This benefits the watershed in creating awareness for water conservation and providing a cumulative reduction in groundwater use. An effective conservation program also supports drought response and climate change resilience. Overall, the program would support NEB and the Plan's goal of streamflow restoration.

Funding source: Funding would be needed to support the program. Potential sources include state or local appropriations, grants, pooling of resources by Committee members and other stakeholders, or other means.

5. Water Supply Data for Comprehensive Water Planning

Proposed implementing entity: Ecology with support from counties, Department of Health, local jurisdictions and potentially consultants.

Recommendation: By September of 2026, collect, estimate, and/or project the following data and include in a report to the WRIA 14 Committee members and the group established in section 6.2 to address Adaptive Management:

- Number of existing permit exempt domestic water wells and their water use.
- All projected water usage for the next 20 years (permit-exempt wells, inchoate rights, and new water rights).
- Number of municipal water supply connections expected in the next 20 years, by subbasin.
- Total number of existing permit-exempt wells by county.
- Total existing (2018 and earlier) connections in service using (1) unmitigated inchoate water rights; (2) mitigated inchoate water rights; or (3) permit-exempt wells.
- Total connections expected to be put into service in the next 20 years using (1) unmitigated inchoate water rights; (2) mitigated inchoate water rights; or (3) permit-exempt wells.
- An evaluation of the costs of offsetting all new domestic water uses over the next 20 years, as described in RCW 90.94.030(3)(d). The initiation of adjudication would be considered an acceptable substitute for this study.

Purpose: This would provide a robust information base for comprehensive water planning and would provide context for the Plan and its goals. This also supports tribal desire for a comprehensive water use estimate.

Funding source: Grant funding or a legislative appropriation will be necessary to hire consultant assistance to Ecology for this effort.

6. Sports Field Irrigation Conservation

Proposed implementing entity: City of Shelton. Other sports field owners, such as Shelton School District, Mason County Parks and Rec, South Mason Youth Soccer Association, YMCA. Support from Squaxin Island Tribe.

Recommendation: Increase conservation at outdoor sports fields by assessing and improving current practices through the following steps:

- Review current irrigation practices of sports ball fields.
- Develop short conservation plans for each entity.
- Develop contingency plans for reclaimed water and use reclaimed water when it becomes available.
- Install water-saving infrastructure at sports fields.
- Use existing metering to demonstrate savings from new infrastructure.
- Consider rainwater capture potential from buildings at outdoor sports fields.

Purpose: This would reduce groundwater use, increase use of reclaimed water, and provides resilience to drought and climate change.

Funding source: Funding would be needed to prepare plans, install water saving infrastructure, and to evaluate program. Funding sources are undetermined.

7. Group A Water System Conservation through Infrastructure Improvements

Proposed implementing entity: City of Shelton and Mason Public Utility District 1

Recommendation: Replace leaking household water distribution pipes to greatly reduce unaccounted for water (distribution system leakage). Start by identifying systems with high distribution system leakage and prioritize them based on quantity of water that can be conserved with infrastructure improvements.

Purpose: Group A water systems are currently required by WA Department of Health to bring distribution system leakage below 10%; the objective of this recommendation is to bring distribution systems below this threshold. By reducing system leakage, group A water systems could expand service territory from the additional connections gained. Expanding service territory decreases the likelihood of nearby installation of permit exempt wells.

Funding source: Grant funding to Group A water system purveyors.

8. Funding for Plan Implementation

Proposed implementing entity: Legislature and/or Committee Members or other stakeholders

Recommendation: The WRIA 14 Committee recommends the Legislature provide funding for plan implementation, monitoring and adaptive management of the plan, including:

- Annual tracking of new PE wells and project implementation by subbasin.
- Staffing for the ongoing Committee.
- Ongoing Committee member participation.
- Developing a process to adaptively manage implementation if NEB is not being met as envisioned by the watershed plan (e.g. identification and development of alternative projects, etc.).
- Ongoing monitoring within the basin (see recommendation 6.1.2).
- Plan implementation.

If necessary, the Committee may also recommend additional funding, including grants, fees, shared contributions from members and other stakeholders, and other sources that may emerge.

Purpose: Plan implementation is key to success and it will take ongoing funding.

Funding source: Legislature or others.

9. Waterwise Landscaping

Proposed implementing entity: Mason County, Mason Conservation District, Squaxin Island Tribe, and/or Committee Members or other stakeholders.

Recommendation: The WRIA 14 Committee recommends the Legislature provide funding for a technical and financial support program for voluntarily participating landowners (~100) who are developing their property and installing permit-exempt domestic wells to do the following:

- Around a newly built home site, create waterwise landscaping which includes native plants or retains the existing native vegetation on the site.
- After the completion of home landscaping, monitor daily outdoor water consumption for landscaping purposes only for three years.
- Changes in landscaping water use per household resulting from this program will be summarized and reported by a participating implementing entity.

Purpose: This would generate a new model in waterwise and native landscaping that provides wildlife habitat, and decreases water use which could be quantified and used for planning of future incentive programs.

Funding source: Legislature or others.

6.2 Plan Implementation and Adaptive Management

6.2.1 Project, Policy, and Permit-Exempt Well Tracking

The WRIA 14 Committee recommends tracking the growth of permit-exempt (PE) wells in the watershed as well as the projects and policies that were planned to offset the impacts of these PE wells. This data will allow the Committee to determine whether planning assumptions were accurate and whether adjustments to plan implementation are needed. Recommended funding for plan implementation is described in detail in section 6.1.8.

A. The WRIA 14 Committee recommends tracking the following information on an ongoing basis:

   - New building permits issued that include permit-exempt wells, as well as the number of building permits requiring water connections.
   - Status of implementation for each project included in the plan.
   - Status of policy recommendations included in the plan.
   - An ongoing list of new PE wells in the WRIA since the enactment of RCW 90.94.
     - The lists of building permits and projects will be organized by subbasin, and if feasible represented on a map that includes subbasin delineations. Counties

are encouraged to provide parcel or other geographic information in their reports to Ecology to support mapping by subbasin.

B. To assess the status of project implementation, the Committee recommends using the Salmon Recovery Portal (https://srp.rco.wa.gov/about), managed by the Washington State Recreation and Conservation Office (RCO), to support project tracking.
    - The Washington Department of Fish & Wildlife (WDFW), in collaboration with the Washington Department of Ecology and RCO, will coordinate the implementation of project tracking through the Salmon Recovery Portal.
    - Project sponsors are expected to support project tracking efforts and data sharing.
    - Local salmon recovery Lead Entity Coordinators will not be expected to provide ongoing support for project entry, maintenance, or reporting. To improve harmonization of streamflow restoration with ongoing salmon recovery efforts, local salmon recovery Lead Entity Coordinators will be consulted prior to initial data uploads.
    - University of Washington data stewards, contracted by WDFW, will conduct data entry, quality assurance, and quality control. If this approach changes, WDFW will propose an alternative method for completing this task.
    - Entities with representation in the WRIA 14 Committee (or an implementation group, if created) are encouraged to assist as needed with coordination, data gathering and input, and tracking.

Table 10 summarizes the entities recommended as being responsible for implementing the tracking and monitoring recommendation and associated funding needs.

Table 10: Implementation of Tracking and Monitoring Recommendation

Action	Entity or Entities Responsible	Funding Considerations
Track building permits issued with PE wells (including new connections).	Ecology (via reporting from counties and cities).	The number of building permits and associated fees are transmitted to Ecology annually. No additional funding is needed.
Maintain an ongoing list and map of new PE wells within each sub-basin.	Ecology	Information is included with data on new PE wells, provided by local governments. No additional funding is needed.
Maintain a summary of the status of implementation for each project.	Ecology via the Salmon Recovery Portal, with support from WDFW, RCO, and project sponsors	WDFW may need additional funding to support maintaining the Salmon Recovery Portal.
Maintain a summary of the status of each policy recommendation.	*Implementation group and proposed implementing entities listed in 6.1 Policy and Regulatory Recommendations*	Additional funding may be needed to gather status updates.

6.2.2 Reporting and Adaptation

The Committee recommends that Ecology provides the data collected above to all entities represented on the Committee and other interested parties through annual reporting and a self-assessment as described below. These reports and assessments will help determine whether the plan's recommendations are being implemented and whether they are having the intended impacts. Recommended funding for plan implementation is described in detail in section 6.1.8.

A. The WRIA 14 Committee recommends **annual reporting** as follows:
   - By September of each year, **Ecology** will prepare an annual report that includes:
     - A list of total building permits issued in the prior calendar year along with the total number of associated new domestic PE wells, using the information provided to Ecology by the local jurisdictions.
     - A brief description of the status of WRIA 14 projects and actions included in this plan (descriptions may be drawn from the Salmon Recovery Portal, if available).

        - If the project as implemented differs significantly from the original description and assumptions included in the plan, the annual report will also include an estimate of changes to the offset benefit.
    - Other implementation actions to date, including any changes in approach since the last report and any challenges identified that may require adaptation in plan implementation.
    - The lists of building permits and projects will be organized by subbasin, and if feasible represented on a map that includes subbasin delineations. Counties are encouraged to provide parcel or other geographic information in their reports to Ecology to support mapping by subbasin.
- The first annual report should include an estimate of expenses necessary for plan implementation and associated funding options. Funding options could include:
    - Local or state fees, including PE well fees
    - Grants
    - State funding
    - Other options
- Ecology will share the report with Committee members and other interested parties.

B. The WRIA 14 Committee recommends preparing a **self-assessment every five years** as follows:
    - By September of 2026, and every five years thereafter during the planning horizon period, Ecology will compile and report based on available information from previous reports and partners:
        - All cumulative information required in the annual report.
        - Estimated water offset quantities, consumptive use, and instream flow benefits, realized through implementation of projects and actions identified in this plan.
        - A comparison of each item above to the original assumptions included in the plan and a summation of overall ecological benefit (i.e., greater than expected, less than expected, or about the same as expected).

C. The WRIA 14 Committee recommends that the WRIA 14 Committee members continue to meet to allow continued collaboration on plan implementation.
    - Interested WRIA 14 Committee members, or a new implementation group if established, will meet regularly to:
        - Review and discuss the annual report.
        - Share updates on project and policy implementation.
        - Discuss or develop recommendations for revisions, additions, or deletions to planned projects or actions.

- Every five years interested WRIA 14 Committee members, or a new implementation group if established, will hold a series of meetings to conduct the self-assessment, which includes:
    - Reviewing the five-year assessment report from Ecology.
    - Developing recommendations to adapt projects and actions to meet NEB.
    - Updating data and assumptions.
    - Other items identified by Committee members.
- Additional meetings may be scheduled as needed.
- Mason County has offered to play the role of coordinating an implementation group for WRIA 14. Mason County will use existing capacity as well as seek funding opportunities to support their role. Mason County will convene interested member entities of the WRIA 14 Committee to form the implementation group in the summer of 2021. This group will consider the following activities related to plan implementation:
    - Redefining the WRIA 14 Committee, which could include a new name, charter, and supporting interlocal agreement.
    - Identifying project development lead(s) and supporting project development.
    - Identifying triggers for adaptive management and develop responses to emerging challenges.
    - Coordinating monitoring and research.
    - Coordinating reporting.
    - Identifying funding mechanisms to provide capacity for the Committee members and facilitator.
    - Other tasks as needed.

Table 11 summarizes the entities responsible for carrying out the reporting and adaptation recommendation and associated funding needs.

Table 11: Implementation of Reporting and Adaptation Recommendation

Action	Entity or Entities Responsible	Funding Considerations
Annual Reports	• Local jurisdictions provide building permit information to Ecology. • Ecology compiles information on project status, drawn from the Salmon Recovery Portal.	• Local jurisdictions are already required to provide building permit information to Ecology (no additional funding needed). • Ecology staff would compile reports using existing resources.

Action	Entity or Entities Responsible	Funding Considerations
	• Entities provide monitoring data to Ecology for inclusion in reports. • Ecology combines monitoring data from within the agency with data provided by other entities. • Ecology compiles information into a single report for distribution to the Committee and other interested parties.	• WDFW may need additional funds to manage the Salmon Recovery Portal.
Five-Year Self-Assessment:	• Local jurisdictions provide building permit information to Ecology. • Ecology compiles information on project status, drawn from the Salmon Recovery Portal. • Entities provide monitoring data to Ecology for inclusion in reports. • Ecology combines monitoring data from within the agency with data provided by other entities. • Ecology prepares estimates of the quantity of water, instream flow, and habitat benefits realized through implementation of projects and actions identified in this plan. • Ecology compiles information into a single report for distribution to Committee and other interested parties. • Mason County convenes interested members of the WRIA 14 Committee to review progress and recommend adaptations as needed.	• Local jurisdictions are already required to provide building permit information to Ecology (no additional funding needed). • Ecology may need funding to complete the estimate of realized benefits. • State funding or staff support will be needed to reconvene a group to prepare recommendations. • Committee members who cannot participate in meetings using existing resources will need additional funding. • Mason County may need additional funding to support their role in convening the implementation group.

6.3 Other Issues

6.3.1 Summary of Legislative requests

Legislative funding is requested for recommendations 6.1.1, 6.1.2, 6.1.5, 6.1.8, and 6.1.9

6.3.2 Assurance of Plan implementation

The WRIA 14 Committee prepared the WRIA 14 watershed plan with the intent that the plan is fully implemented Members of the Committee provided the following statements of assurance of their commitment to plan implementation.

- **Department of Ecology**
    - Ecology follows NEB Guidance and RCW 90.94.030 provisions in reviewing the watershed plan and considering plan adoption.
    - Ecology administers the 90.94 Grant Program, giving priority evaluation points to projects included in WRIA plans, and updating grant guidance as needed to better support plan implementation.
    - Ecology considers watershed plan recommendations and investigates the feasibility of actions and recommendations where Ecology is identified as the lead.
    - Ecology reports to the legislature on the status of the watershed plan implementation in 2020 and 2027.
- **Squaxin Island Tribe**
    - The Squaxin Island Tribe supports and participates in implementation activities as staff capacity allows, including:
        - Participating in implementation group meetings.
        - Coordination between meetings, including:
            - Supporting project development and seek project opportunities
            - Seeking and supporting funding opportunities to achieve implementation
            - Tracking implementation and identifying areas for improvement
- **Skokomish Indian Tribe**
    - The Skokomish Tribe supports and participates in implementation activities as staff capacity allows, including:
        - As directed by Skokomish management, participating in implementation group meetings.
        - As directed by Skokomish management, coordination between meetings:
            - Assist in research and identify project opportunities

        - Assist in the identification of funding opportunities to achieve implementation
        - Identify areas for improvement

- **Thurston County**

    - Thurston County will adopt this watershed plan by resolution, formalizing our support of the plan contents once the plan has been approved by Ecology.
    - This watershed plan will become one of the guiding documents for Thurston County community planning work, including implementation of the Comprehensive Plan and related plans.
    - Thurston County will evaluate the relationship of identified projects within the watershed plan with the Thurston County Capital Improvement Program, seeking potential for overlap in funding opportunities.
    - Thurston County supports and participates in implementation activities as staff capacity allows, including:
        - Participating in implementation group meetings.
        - Coordination between meetings, including:
            - Supporting project development and seeking project opportunities
            - Seeking and supporting funding opportunities to achieve implementation
            - Tracking implementation and identifying areas for improvement

- **Mason County**

    - Mason County adopts this watershed plan by resolution, formalizing our support of the plan contents once the plan has been approved by Ecology.
    - Mason County supports and participates in implementation activities as staff capacity and funding allows, including:
        - Participating in implementation group meetings.
        - Coordination between meetings, including:
            - Supporting project development and seeking project opportunities
            - Seeking and supporting funding opportunities to achieve implementation
            - Tracking implementation and identifying areas for improvement

- **City of Shelton**

    - The City of Shelton supports and participates in implementation activities as staff capacity allows, including:
        - Participating in implementation group meetings.
        - Coordination between meetings, including:
            - Supporting project development and seek project opportunities
            - Seeking and supporting funding opportunities to achieve implementation
            - Tracking implementation and identifying areas for improvement

- **Mason County PUD No. 1**

    - Mason County PUD 1 supports collaboration among WRIA 14 members to implement a comprehensive strategy for balancing competing demands for water, while at the same time preserving and enhancing the future integrity of the WRIA 14 watershed basin.
    - Mason County PUD 1 evaluates and prioritizes capital projects included in this plan for placement into the Capital Improvement Program.
    - Mason County PUD 1 supports and participates in implementation activities as staff capacity allows, including:
        - Participating in implementation group meetings.
        - Coordination between meetings, including:
            - Supporting project development and seek project opportunities
            - Seeking and supporting funding opportunities to achieve implementation
            - Tracking implementation and identifying areas for improvement

- **Building Industry Association of Washington (BIAW)**

    - BIAW supports and participates in implementation activities as staff capacity allows, including:
        - Participating in implementation group meetings.
        - Coordination between meetings, including:
            - Supporting project development and seek project opportunities
            - Seeking and supporting funding opportunities to achieve implementation
            - Tracking implementation and identifying areas for improvement

- **Washington State Chapter Sierra Club**

    - The Sierra Club will support and participate in implementation activities as Sierra Club volunteer representative capacity allows, including:
        - Participating in implementation group meetings.
        - Coordination between meetings, including:
            - Supporting project development and seek project opportunities
            - Seeking and supporting funding opportunities to achieve implementation
            - Tracking implementation and identifying areas for improvement

- **Mason Kitsap Farm Bureau**

    - The Mason Kitsap Farm Bureau supports and participates in implementation activities as staff capacity allows, including:
        i. Participating in implementation group meetings.
        ii. Coordination between meetings, including:

1. Supporting project development and seeking project opportunities
2. Tracking implementation and identify areas for improvement
3. Providing information and support from the perspective of agriculture

- **Mason Conservation District - Salmon Recovery Lead Entity (Ex-Officio Member)**
  - Mason Conservation District supports and participates in implementation activities as staff capacity and funding resources allow, including:
    - Participating in implementation group meetings.
    - Coordination between meetings, including:
      - Supporting project development and seek project opportunities
      - Seeking and supporting funding opportunities to achieve implementation
      - Tracking implementation and identifying areas for improvement
- **Washington State Department of Health (Ex-Officio Member)**
  - WA State Department of Health supports and participates in implementation activities as staff capacity allows, including:
    - Participating in implementation group meetings.
    - Prior to approving a Water System Plan for a municipal water supplier (or other planning document with a water right place of use expansion), the Office of Drinking Water will ensure that new water service provided under the water system plan is consistent with relevant provisions of adopted local plans and development regulations. The Office of Drinking Water will ensure consistency through local government review of water system plans against relevant provisions of adopted local plans and development regulations.
    - Office of Drinking Water commits to coordinate with Department of Ecology through the agencies' Joint Memorandum of Understanding. This MOU states that the Department of Ecology will make a determination that the water system's service area and the submitted Water System Plan is not-inconsistent with any county-approved watershed plans.
- **Green Diamond (Ex-Officio Member)**
  - Green Diamond supports and participates in implementation activities as appropriate, including:
    - Partnership in implementations activities with nexus to Green Diamond forest lands, including:
      i. Supporting project development where consistent with Green Diamond's operations
      ii. Supporting funding and in-kind opportunities to achieve implementation
      iii. Tracking implementation and identifying areas for improvement

Chapter Seven: Net Ecological Benefit

The projects identified in this plan are consistent with the project type examples listed in the Final NEB Guidance: (a) water right acquisition offset projects; (b) non-acquisition water offset projects; and (c) habitat and other related projects (Ecology 2019b). Offset projects in WRIA 14 focus on infiltration of reclaimed water, water right acquisition, water system consolidation and source water replacement, and Managed Aquifer Recharge (MAR). Habitat restoration projects focus on increasing stream complexity, floodplain reconnection, fish passage, and enhancement of natural processes to benefit aquatic species. Water offset projects may also provide additional habitat benefits in the watershed as described below and in project descriptions in Appendix I. Similarly, some habitat restoration projects may produce a marginal offset benefit by increasing seasonal storage.

7.1 Consumptive Use and Water Offsets

This plan uses medium population growth forecasts for Mason and Thurston Counties to project a total of 4,294 new PE wells installed within WRIA 14 during the 2018 through 2038 planning horizon. To address uncertainty in the consumptive use estimate, conservative assumptions were made with regards consumptive use from outdoor irrigation. When estimating outdoor irrigated areas (with existing rural parcels with PE wells), all parcels were assumed to irrigate at least 0.05 acres, even when the parcels had no visible irrigated areas. In addition, when calculating outdoor consumptive use, irrigation was assumed to be at rates required for growing commercial turf grass. Applying these assumptions, and accounting for both indoor and outdoor water use, 759 acre-feet per year (AFY) (1.05 cfs) of new consumptive water use is projected to be the "most likely" estimate for new PE wells in WRIA 14 through 2038.

The Committee also defined a higher adaptive management goal of 1,034 AFY, a conservative target of consumptive water use resulting from an assumed average irrigated area of 0.14 acres per well. This larger average irrigated area is based on the 95 percent upper confidence limit of the average irrigated area. This additional factor of safety provides greater certainty that offsets and NEB are met. The Committee recommends that adaptive management measures, as described in Chapter 6, are used to achieve the higher goal.

The Committee's approach to offsetting these consumptive water use estimates was to develop a list of potential offset projects that exceed the anticipated impacts by a margin large enough to give reasonable assurance that this plan will be successful over the planning timeline. This watershed plan demonstrates that the water offset project portfolio (Table 12), if implemented, can succeed in offsetting consumptive use impacts at the WRIA scale from the "most likely"

consumptive use estimate. This plan estimates a total potential water offset of 891 AFY claimed by the WRIA 14 Committee from five water offset projects (Table 12), that produce a WRIA-wide surplus offset of 132 AFY above the "most likely" consumptive use offset target. The total water offset claimed by the Committee results in a WRIA-wide deficit of 143 AFY compared to the "higher adaptive management" goal set by the Committee.

RCW 90.94 allows for an uneven distribution of the offset project amounts relative to anticipated consumptive water use, provided the plan will lead to a NEB at the WRIA-scale. Although the "most likely" consumptive use offset goal is achieved at the WRIA-scale, the distribution among subbasins is uneven (Table 13). In the Goldsborough and Hood subbasins, the surplus offsets exceed the offset target by 523 and 10 AFY, respectively. All other subbasins have water offset deficits, ranging from 1 – 221 AFY.

Water offset benefits from projects fall short of the higher adaptive management consumptive use offset goal at the WRIA-scale. In the Goldsborough and Hood subbasins, the surplus offsets exceed the offset target by 488 and 3 AFY, respectively (Table 13). All other subbasins have water offset deficits, ranging from 31 – 320 AFY.

The Committee recommends using adaptive management measures as described in Chapter 6 to develop sufficient projects to meet the goal of exceeding the "higher adaptive management" consumptive use water offset estimates in all subbasins. The adaptive management and implementation measures include a robust project tracking protocol to ensure that projects are dispersed throughout the watershed to address offset needs across numerous small streams. For example, the five prospective projects not included in the water offset accounting (Section 5.4) have the potential to provide offsets in excess of the higher adaptive management offset goal and distribute offset benefits throughout all subbasins. Water rights acquisitions and efficiencies will be sought in all subbasins. The Mason County Rooftop Runoff Project, if implemented, would provide offset benefits in all subbasins. The Forest Stand Age and Floodplain restoration projects may be implemented in all subbasins and could result in a quantifiable water offset. Finally, the Summit Lake Water System Project could provide a substantial water offset benefit to the Kennedy subbasin.

The water offset projects provide additional benefits to instream resources beyond those necessary to offset the impacts from new consumptive water use within the WRIA. For the project types planned in WRIA 14, additional benefits could include the following:

- Water right acquisition projects: Aquatic habitat improvements during key seasonal periods; reduction in groundwater withdrawals and associated benefit to aquifer resources; and/or beneficial use of reclaimed water. Water right acquisition

opportunities in WRIA 14 can be associated with land acquisitions which provide additional conservation-related habitat benefits.

- MAR and Infiltration of reclaimed water projects: Aquatic habitat improvements during key seasonal periods; increased hydration of wetlands and headwaters; increased groundwater recharge; reduction in summer/fall stream temperature; increased groundwater availability to riparian and near-shore plants; and/or contribution to flood control. Improvements to water quality may also occur as a result of infiltration.

In summary, while this watershed plan demonstrates the water offset portfolio will offset the "most likely" consumptive use impacts at a WRIA scale, it would have to rely on successful adaptive management if it is to meet the goal to achieve offset benefits by subbasin or the higher adaptive management consumptive use estimate.

Table 12: Summary of WRIA 14 Water Offset Projects Included in NEB Evaluation

Project Name	Subbasin(s)	Project Short Description	Estimated Offset Benefits (AFY)[52]	Estimated Offset Benefits Claimed by WRIA 14 Committee (AFY)	Readiness to Proceed
City of Shelton RW/ WCC Source Switch	**Goldsborough**	Re-direct North Shelton wastewater to WRP and infiltrate Class A reclaimed water at existing spray field near the WCC	486	486	High
Evergreen Mobile Estates	**Oakland Bay**	Water system consolidation and water right acquisition	7	7	Medium
Steamboat Middle	**Kennedy**	Expanded water storage in an existing forested/non-forested wetland.	14	14	Low
MAR	**Multiple**	Install managed aquifer recharge facilities: Kennedy, Mill, Skookum, Goldsborough, Johns, Cranberry, Sherwood Creeks	910	273	Low
Water Right Analysis	**All**	WRIA-wide analysis on potential WR acquisition for future studies and implementation.	1,112	111	Low
WRIA 14 Total Water Offset			**2,529**	**891**	
WRIA 14 Consumptive Use Estimate			**759**		
Higher Adaptive Management Consumptive Use Goal			**1,034**		

[52] 1 acre foot per year is equivalent to 0.0014 cfs, or 892.74 gallons per day

Table 13: Subbasin Water Offset Totals Compared to Permit-Exempt Well Consumptive Use Estimate

Subbasin	Offset Project Totals (AFY)	Permit-Exempt Well Most Likely Consumptive Use Estimate (AFY)	Surplus/Deficit[53] from Most Likely Consumptive Use Estimate (AFY)	Higher Adaptive Management Consumptive Use Estimate (AFY)[54]	Surplus/Deficit from Higher Adaptive Management Consumptive Use Estimate (AFY)
Case	43	91	-48	123	-80
Goldsborough	619	97	523	132	488
Harstine	0	25	-25	35	-35
Hood	31	21	10	28	3
Kennedy	38	104	-66	142	-104
Mill	81	82	-1	112	-31
Oakland Bay	55	276	-221	375	-320
Skookum	25	64	-39	87	-62
WRIA 14 Total	**891**	**759**	**132**	**1,034**	**-143**

7.2 Habitat Benefits

The WRIA 14 plan includes an inventory of additional projects to meet the offset needs and NEB for the watershed. Additional projects can be broken down into the following:

- Projects that provide habitat and streamflow benefits, but streamflow benefits are difficult to quantify.

[53] Surplus water offset is associated with a positive value and a deficit in water offset is associated with a negative value. This column represents the difference between the project offset total and the offset target (estimated consumptive use in the subbasin).

[54] 1 acre foot per year is equivalent to 0.0014 cfs, or 892.74 gallons per day

- Projects that primarily benefit habitat and address limiting factors for salmonids.

Many habitat restoration projects were identified in WRIA 14. Table 14 summarizes the benefits of five habitat improvement projects as shown in Figure 5, Chapter 5 and described in further detail in Chapter 5 and Appendix I. While several of these projects may produce a marginal offset benefit by increasing seasonal storage, the benefits were too small and too complex to estimate without further evaluation. In general, these projects increase stream complexity, reconnect floodplains, improve fish passage, and enhance natural processes that had been lost to the benefit of salmonids and other aquatic species. Additional habitat projects that are less developed are listed in the Project Inventory in Appendix J.

The Kennedy-Goldsborough Watershed is an important and productive system for salmonids. The habitat projects in Table 14 address many of the salmonid limiting factors described in Chapter 2.1.3, including:

- Fish Passage
- Riparian Canopy Closure
- Streambank Condition
- Floodplain Connectivity
- Substrate Embeddedness
- Large Woody Debris
- Pool Frequency and Quality
- Off-channel Habitat
- Temperature
- Dissolved Oxygen
- Water Quantity/ Dewatering
- Change in Flow Regime
- Biological Processes

Specifically, water quantity and general dewatering of creeks was identified as a limiting factor in Skookum Creek, Mill Creek, Goldsborough Creek, Shelton Creek, Johns Creek and Cranberry Creek.

Implementation of habitat improvement projects, in coordination with other restoration programs, will contribute to a cumulative net ecological benefit. Providing fish passage improves fish access to existing habitat, and therefore provides immediate benefits. Improvements to riparian condition will increase shade, bank stability, large woody debris loading, and fish cover. Increasing shade will maintain or lower water temperature on a

cumulative basis. Lower water temperatures have a greater saturation potential for dissolved oxygen, which is beneficial for salmonids, in general. Improving bank stability will reduce bank erosion and substrate embeddedness, which increases suitability for salmonid spawning habitat and macroinvertebrate communities (salmonid prey items). Increased bank stability, increased large woody debris loading, and reduced fine sediment inputs will all contribute to increased pool frequency and quality. Increased floodplain connectivity will attenuate flood flows and store water in the floodplain soils for slow release back to the stream over the course of days to months. This local storage will contribute to improving the flow regime and flow quantity.

The watershed plan also includes a number of policy recommendations, described in Chapter 6. Some of these recommendations are expected to result in additional benefits to habitat, fish and wildlife. Benefits include reduced water consumptive, increased water conservation, improved water quality, habitat protection and restoration, and direct streamflow benefits.

Table 14: Summary of WRIA 14 Habitat Improvement Projects included in NEB Evaluation

Project Name	Project Type and Brief Description	Subbasin	Anticipated Ecological Benefit(s)	Readiness to Proceed
Skookum Valley Ag	Channel re-alignment to increase channel length and sinuosity	Skookum	Increase floodplain connectivity; increase usable aquatic habitat area; increase fish cover; increase habitat complexity	High
Goldsborough Cr- Hilburn Restoration	Remove bank protection and channel fill; Increase density of large woody debris	Goldsborough	Increase floodplain connectivity; increase usable aquatic habitat area; increase fish cover; increase habitat complexity	High
Skookum Valley Railroad Culvert Crossings	Restore fish passage at several existing barriers	Skookum	Fish passage	Medium
Floodplain Restoration	Floodplain restoration with variable objectives	Kennedy, Skookum, Mill, Oakland, Harstene, Case	Increased floodplain function and local aquifer storage	Medium
Steamboat Upper	Increase ponded storage on north end of the Steamboat peninsula	Kennedy	Increase base flow in unnamed stream flowing from pond.	Low

7.3 Uncertainty and Adaptive Management

The WRIA 14 Committee identified a number of challenges related to plan implementation, described in Chapter 6. These challenges include uncertainty in growth projections, uncertainty in consumptive use estimates, uncertainty in offset quantities associated with specific project types, uncertainties associated with project implementation, future effects of climate change, and other factors. The Committee has recommended adaptive management measures in Chapter 6 of the plan for the purpose of addressing uncertainty in plan implementation. Adaptive management measures include PE well tracking, offset and habitat project implementation tracking, and periodic watershed plan implementation reporting, with recommended adjustments to the plan.

These measures, in addition to the project portfolio and associated benefits described in Chapter 5, increase the resiliency of the plan and increase the certainty that sufficient additional water from projects is available to achieve NEB. The Committee supports focusing implementation efforts on projects identified in this plan, as well as in subbasins where there is the most need for offsets.

Conservative estimates of PE well growth and consumptive use have been applied at multiple levels in this plan as a precaution, and to add certainty that the project portfolio is adequate to meet offset targets and address factors limiting salmonid survival in the watershed. Furthermore, the Committee has discounted the estimates of calculated offset benefits for projects in the project portfolio. The highly conservative estimates of both consumptive use and estimated project offsets also help ensure that streams will see flow benefits despite uncertainties associated with project implementation.

7.4 NEB Evaluation Findings

The WRIA 14 watershed plan provides projects that, if implemented, can offset an estimated 759 AFY as the “most likely” new consumptive water use in WRIA 14.This watershed plan sets goals of achieving offsets through a total of five water offset projects with an estimated cumulative offset projection of 891 AFY claimed by the WRIA 14 Committee. The projected total water offset yields a surplus offset of 132 AFY above the consumptive use estimate of 759 AFY, but results in a deficit of 143 AFY below the higher adaptive management estimate in WRIA 14. Three additional water offset projects that are not listed in Table 12 (the Schneider Creek Source Exchange, the Summit Lake Water Source, and the Mason County Rooftop Runoff project) would provide additional benefit, but were not included due to uncertainty associated with implementation or other restrictions. The surplus offsets, additional habitat restoration projects, adaptive management measures, and the conservative approach to estimating both

project offsets and consumptive use offset targets increase the certainty that sufficient additional water from projects is available to achieve NEB by protecting, restoring and enhancing streamflows in WRIA 14.

Although the project portfolio will meet offset targets from the "most likely" consumptive use estimate on a WRIA-scale, much of the water offset in WRIA 14 is concentrated in the Goldsborough subbasin. The remainder of the subbasins are near neutral or in deficit as compared to the higher adaptive management consumptive use estimate. The Oakland Bay subbasin has the largest deficit, and any opportunities to increase offset benefits in this subbasin should be prioritized.

Within this plan, water offset projects are complimented by a total of five habitat improvement projects, which provide streamflow habitat benefits. While many of these habitat improvement projects have potential streamflow benefits, the Committee excluded any associated water offset from the plan's water offset accounting.

Additional prospective projects and programmatic actions (described in Chapters 5 and 6) include exploration of water right opportunities, development of a Mason County Rooftop Runoff Program, development of floodplain restoration projects, incentives to increase the average age of forest stands, organization of a Summit Lake community water system, a Water Conservation Education and Incentives Program, a recommendation to update the Ecology Well Log Database, and the potential establishment of a revolving loan and grant fund to offset costs of connecting to Group A public water systems. These prospective projects and programmatic actions could result in water offsets, if they were developed during plan implementation. Improvement of the Ecology Well Log Database may improve the technical capacity for future technical evaluation.

The Committee has additionally recommended adaptive management measures, as described above and in Chapter 6, to provide reasonable assurance that the plan will adequately address new consumptive use impacts anticipated during the planning horizon, despite inevitable challenges that will arise during project implementation, operation, and maintenance.

This WRIA 14 watershed plan describes projects, which if implemented as intended, can offset the anticipated new consumptive use over the planning horizon and achieve NEB. The WRIA 14 Committee developed this Plan to meet NEB, given the limitations of the timeline and resources. As this chapter describes, this watershed plan provides multiple ecological benefits. The WRIA 14 Committee is leaving the final NEB determination to Ecology.

Appendices

WRIA 14 Kennedy - Goldsborough Watershed

Final Draft Plan
February 2021

Appendix A – References

Barlow and Leake. 2012. Streamflow Depletion by Wells - Understanding and Managing the Effects of Groundwater Pumping on Streamflow: U.S. Geological Survey Circular 1376, p. 83. (https://pubs.usgs.gov/circ/1376/pdf/circ1376_barlow_report_508.pdf)

Derkey, R.E., Hehemann, N.J., and Alldritt, K.. 2009a. Geologic Map of the Lake Wooten 7.5-Minute Quandrangle, Mason County, Washington. Washington Division of Geology and Earth Resources, Open File Report 2009-5. July 2009.

Derkey, R.E., Hehemann, N.J., and Alldritt, K.. 2009b. Geologic Map of the Mason Lake 7.5-Minute Quandrangle, Mason County, Washington. Washington Division of Geology and Earth Resources, Open File Report 2009-6. July 2009.

Quality Improvement Report and Implementation Plan. Publication No. 11-10-039.

Gray and Osborne. 1991. Water System Feasibility Study for Summit Lake in Thurston County, Washington. Prepared for Thurston County Public Works Department. May 1991.

Golder Associates, Inc. 2003. Kennedy-Goldsborough Watershed (WRIA 14) Phase II – Level I Assessment, Data Compilation and Preliminary Assessment. Prepared for: WRIA 14 Planning Unit in association with Economic and Engineering Services, Inc. March 2003.

Krosby, M., Hegewisch, K.C., Norheim, R., Mauger, G., Yazzie,K., H. Morgan. 2018."Tribal Climate Tool" web tool. Climate Impacts Group (https://cig.uw.edu/resources/tribal-vulnerability-assessment-resources/) and NW Climate Toolbox (https://climatetoolbox.org/) accessed on May 21, 2020.

Kuttel, Michael, Jr. Washington State Conservation Commission. November 2002. Salmonid Habitat Limiting Factors Water Resource Inventory Area 14, Kennedy-Goldsborough Basin.

Mauger, G.S., J.H. Casola, H.A. Morgan, R.L. Strauch, B. Jones, B. Curry, T.M. Busch Isaksen, L. Whitely Binder, M.B. Krosby, and A.K. Snover. 2015. State of Knowledge: Climate Change in Puget Sound. Report prepared for the Puget Sound Partnership and the National Oceanic and Atmospheric Administration. Climate Impacts Group, University of Washington, Seattle. doi:10.7915/CIG93777D

Molenaar, D. and J. Noble. 1970. Geology and Related Ground-Water Occurrence, Southeastern Mason County, Washington. Water-Supply Bulletin No. 29. State of Washington Department of Water Resources in cooperation with United States Geological Survey Water Resources Division.

Natural Resource Conservation Service. 1997. Washington Irrigation Guide (WAIG). U.S. Department of Agriculture.

Nisqually Watershed Planning Unit .2019. Nisqually Watershed Response to the 2018 Streamflow Restoration Act (RCW 90.94): Addendum to the Nisqually Watershed Management Plan. Olympia, WA. Available: https://appswr.ecology.wa.gov/docs/WaterRights/wrwebpdf/wria11/WRIA11-AddendumNisquallyWatershedManagementPlan-01162019.pdf

Noble, J. B.; Wallace, E. F. 1966. Geology and ground-water resources of Thurston County, Washington; Volume 2: Washington Division of Water Resources Water-Supply Bulletin 10, v. 2, 141 p., 5 plates.

North Thurston County Coordinated Water System Plan, Area-Wide Supplement. https://www.ci.tumwater.wa.us/Home/ShowDocument?id=17477.

Northwest Indian Fisheries Commission. Understanding Tribal Treaty Rights in Western Washington. October 2014. Available: https://nwifc.org/w/wp-content/uploads/downloads/2014/10/understanding-treaty-rights-final.pdf

Pacheco, Jim. Personal Correspondence. August 21, 2020.

Plateau Technical Communication Services (Plateau). February 2006. WRIA 14 Watershed Management Plan Kennedy-Goldsborough Watershed. Final Draft. Prepared for the WRIA 14 Planning Unit.

Polenz, Alldritt, K., Hehemann, N.J., Srikhan, I.Y., and Logan, R.L.. 2010. Geologic Map of the Belfair 7.5-Minute Quandrangle, Mason, Kitsap, and Pierce Counties, Washington. Washington Division of Geology and Earth Resources, Open File Report 2010-7. July 2010.

Pringle, Patrick T. 2008. Roadside Geology of Mount Rainier National Park and Vicinity. Washington Division of Geology and Earth Resources Information Circular 107, 190 p

Revised Code of Washington (RCW). 2019. Streamflow Restoration, Chapter 90.94 RCW. Accessed on June 23, 2019, at https://app.leg.wa.gov/RCW/default.aspx?cite=90.94.

Revised Code of Washington (RCW). 2019. Watershed Planning, Chapter 90.82 RCW. Accessed on June 23, 2019, at https://app.leg.wa.gov/rcw/default.aspx?cite=90.82.

Squaxin Island Tribe [SIT]. 2020. Unpublished stream flow data.

U.S. Geological Survey and U.S. Department of Agriculture, Natural Resources Conservation Service (USGS). 2013. Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD) (4 ed.): Techniques and Methods 11–A3, 63 p., https://pubs.usgs.gov/tm/11/a3/.

Washington Administrative Code. WAC 173-510-050 Groundwater. March 21, 1980. Available: https://apps.leg.wa.gov/WAC/default.aspx?cite=173-510-050&pdf=true

Washington State Department of Ecology (Ecology). 1983. Kennedy-Goldsborough Instream Resources Protection Program

Washington State Department of Ecology (Ecology). 2019. Final Guidance for Determining Net Ecological Benefit, GUID-2094 Water Resources Program Guidance. Washington State, Department of Ecology, Publication 19-11-079. Available: https://fortress.wa.gov/ecy/publications/documents/1911079.pdf

Washington State Department of Ecology (Ecology). 2019a. Streamflow Restoration Policy and Interpretive Statement. July 31, 2019. Available: https://appswr.ecology.wa.gov/docs/WaterRights/wrwebpdf/pol-2094.pdf

Washington State Department of Ecology (Ecology). 2019b. Final Guidance for Determining Net Ecological Benefit, GUID-2094 Water Resources Program Guidance. Washington State, Department of Ecology, Publication 19-11-079.

Washington State Department of Ecology. 1995. Initial Watershed Assessment. Water Resource Inventory Area 14 Kennedy-Goldsborough Watershed. Available: https://fortress.wa.gov/ecy/publications/publications/95003.pdf

Washington State Department of Ecology. Water Availability. Copyright © 1994-2020. Washington State Department of Ecology. All rights reserved. Web Communications Manager, Washington State Department of Ecology, PO Box 47600, Olympia, WA 98504-7600, 360-407-6590. Available: https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability

Washington State Department of Ecology. 2006. Tributaries to Totten, Eld, and Little Skookum Inlets: Fecal Coliform Bacteria and Temperature Total Maximum Daily Load, Water Quality Improvement Report. Publication No. 06-03-007.

Washington State Department of Ecology. 2011. Oakland Bay, Hammersley Inlet, and Selected Tributaries Fecal Coliform Bacteria Total Maximum Daily Load Water

Washington State Department of Health. 2019. Coordinated Water System Plans of Washington State. No Date. https://www.doh.wa.gov/Portals/1/Documents/4200/CWSSAMap.pdf

Washington State Department of Natural Resources [WDNR]. 2004. Geologic Map of the Summit Lake 7.5-Minute Quadrangle, Thurston and mason Counties, Washington.

Welch, W.B. and Savoca, M.E.. 2011. Hydrogeologic Framework of the Johns Creek Subbasin and Vicinity, Mason County, Washington. U.S. Geological Survey Investigations Report 2011-5168.

WRIA 14 Planning Unit. 2006. WRIA 14 Watershed Management Plan Kennedy-Goldsborough Watershed. Final Draft, February 2006.

WRIA 16 Planning Unit. 2006. Watershed Management Plan – Skokomish-Dosewallips (WRIA 16) (Including the WRIA 14 South Shore Sub-basin. May 11, 2006 as Adopted by the WRIA 16 Planning Unit.

Appendix B – Glossary

Acronym	Definition
AE	Application Efficiency
AFY	Acre-Feet per Year
CFS	Cubic Feet per Second
CU	Consumptive Use
CUF	Consumptive Use Factor
GPD	Gallons per Day
GIS	Geographic Information System
IR	Irrigation Requirements
LID	Low Impact Development
LIO	Local Integrating Organization
MAR	Managed Aquifer Recharge
NEB	Net Ecological Benefit
PE	Permit-Exempt
RCW	Revised Code of Washington
WDFW	Washington Department of Fish and Wildlife
WRIA	Water Resource Inventory Areas

Acre-feet (AF): A unit of volume equal to the volume of a sheet of water one acre in area and one foot in depth. (USGS)

Adaptive Management: An iterative and systematic decision-making process that aims to reduce uncertainty over time and help meet project, action, and plan performance goals by learning from the implementation and outcomes of projects and actions. (NEB)

Annual Average Withdrawal: RCW 90.94.030 (4)(a)(vi)(B) refers to the amount of water allowed for withdrawal per connection as the annual average withdrawal. As an example, a homeowner could withdraw 4,000 gallons on a summer day, so long as they did not do so often enough that their annual average exceeds the 950 gpd.

Beaver Dam Analogue (BDA): BDAs are man-made structures designed to mimic the form and function of a natural beaver dam. They can be used to increase the probability of successful beaver translocation and function as a simple, cost-effective, non-intrusive approach to stream restoration. (From Anabranch Solutions)

Critical Flow Period: The time period of low streamflow (generally described in bi-monthly or monthly time steps) that has the greatest likelihood to negatively impact the survival and recovery of threatened or endangered salmonids or other fish species targeted by the planning group. The planning group should discuss with Ecology, local tribal and WDFW biologists to determine the critical flow period in those reaches under the planning group's evaluation. (NEB)

Cubic feet per second (CFS): A rate of the flow in streams and rivers. It is equal to a volume of water one foot high and one foot wide flowing a distance of one foot in one second (about the size of one archive file box or a basketball). (USGS)

Domestic Use: In the context of Chapter 90.94 RCW, "domestic use" and the withdrawal limits from permit-exempt domestic wells include both indoor and outdoor household uses, and watering of a lawn and noncommercial garden. (NEB)

ESSB 6091: In January 2018, the Legislature passed Engrossed Substitute Senate Bill (ESSB) 6091 in response to the Hirst decision. In the Whatcom County vs. Hirst, Futurewise, et al. decision (often referred to as the "Hirst decision"), the court ruled that the county failed to comply with the Growth Management Act requirements to protect water resources. The ruling required the county to make an independent decision about legal water availability. ESSB 6091 addresses the court's decision by allowing landowners to obtain a building permit for a new home relying on a permit-exempt well. ESSB 6091 is codified as Chapter 90.94 RCW. (ECY)

Evolutionarily Significant Unit (ESU): A population of organisms that is considered distinct for purposes of conservation. For Puget Sound Chinook, the ESU includes naturally spawned Chinook salmon originating from rivers flowing into Puget Sound from the Elwha River (inclusive) eastward, including rivers in Hood Canal, South Sound, North Sound and the Strait of Georgia. Also, Chinook salmon from 26 artificial propagation programs. (NOAA)

Foster Pilots and Foster Task Force: To address the impacts of the 2015 Foster decision, Chapter 90.94 RCW established a Task Force on Water Resource Mitigation and authorized the Department

of Ecology to issue permit decisions for up to five water mitigation pilot projects. These pilot projects will address issues such as the treatment of surface water and groundwater appropriations and include management strategies to monitor how these appropriations affect instream flows and fish habitats. The joint legislative Task Force will (1) review the treatment of surface water and groundwater appropriations as they relate to instream flows and fish habitat, (2) develop and recommend a mitigation sequencing process and scoring system to address such appropriations, and (3) review the Washington Supreme Court decision in Foster v. Department of Ecology. The Task Force is responsible for overseeing the five pilot projects. (ECY)

Four Year Work Plans: Four year plans are developed by salmon recovery lead entities in Puget Sound to describe each lead entity's accomplishments during the previous year, to identify the current status of recovery actions, any changes in recovery strategies, and to propose future actions anticipated over the next four years. Regional experts conduct technical and policy reviews of each watershed's four year work plan update to evaluate the consistency and appropriate sequencing of actions with the Puget Sound Salmon Recovery Plan. (Partnership)

Gallons per day (GPD): An expression of the average rate of domestic and commercial water use. 1 million gallons per day is equivalent to 1.547 cubic feet per second.

Group A public water systems: Group A water systems have 15 or more service connections or serve 25 or more people per day. Chapter 246-290 WAC (Group A Public Water Supplies), outlines the purpose, applicability, enforcement, and other policies related to Group A water systems. (WAC)

Group B public water systems: Group B public water systems serve fewer than 15 connections **and** fewer than 25 people per day. Chapter 246-291 WAC (Group B Public Water Systems), outlines the purpose, applicability, enforcement, and other policies related to Group B water systems.(WAC)

Growth Management Act (GMA): Passed by the Washington Legislature and enacted in 1990, this act guides planning for growth and development in Washington State. The act requires local governments in fast growing and densely populated counties to develop, adopt, and periodically update comprehensive plans.

Home: A general term referring to any house, household, or other Equivalent Residential Unit. (Policy and Interpretive Statement)

Hydrologic Unit Code (HUC): Hydrologic unit codes refer to the USGS's division and sub-division of the watersheds into successively smaller hydrologic units. The units are classified into four levels: regions, sub-regions, accounting units, and cataloging units, and are arranged within each other from the largest geographic area to the smallest. Each unit is classified by a unit code (HUC) composed of two to eight digits based on the four levels of the classification in the hydrologic unit system (two digit units are largest and eight digits are smallest). (USGS)

Impact: For the purpose of streamflow restoration planning, impact is the same as new consumptive water use (see definition below). As provided in Ecology WR POL 2094 "Though the statute requires the offset of 'consumptive impacts to instream flows associated with permit-

exempt domestic water use' (RCW 90.94.020(4)(b)) and 90.94.030(3)(b)), watershed plans should address the consumptive use of new permit-exempt domestic well withdrawals. Ecology recommends consumptive use as a surrogate for consumptive impact to eliminate the need for detailed hydrogeologic modeling, which is costly and unlikely feasible to complete within the limited planning timeframes provided in chapter 90.94 RCW. " (NEB)

Instream Flows and Instream Flow Rule (IFR): Instream flows are a specific flow level measured at a specific location in a given stream. Seasonal changes cause natural stream flows to vary throughout the year, so instream flows usually vary from month to month rather that one flow rate year-round. State law requires that enough water in streams to protect and preserve instream resources and uses. The Department of Ecology sets flow levels in administrative rules. Once instream flow levels are established in a rule, they serve as a water right for the stream and the resources that depend on it. Instream flow rules do not affect pre-existing, or senior, water rights; rather, they protect the river from future withdrawals. Once an instream flow rule is established, the Department of Ecology may not issue water rights that would impair the instream flow level. (ECY)

Instream Resources Protection Program (IRPP): The IRPP was initiated by the Department of Ecology in September 1978 with the purpose of developing and adopting instream resource protection measures for Water Resource Inventory Areas (WRIAs) (see definition below) in Western Washington as authorized in the Water Resources Act of 1971 (RCW 90.54), and in accordance with the Water Resources Management Program (WAC 175-500).

Instream Resources: Fish and related aquatic resources. (NEB)

Large woody debris (LWD): LWD refers to the fallen trees, logs and stumps, root wads, and piles of branches along the edges of streams, rivers, lakes and Puget Sound. Wood helps stabilize shorelines and provides vital habitat for salmon and other aquatic life. Preserving the debris along shorelines is important for keeping aquatic ecosystems healthy and improving the survival of native salmon. (King County)

Lead Entities (LE): Lead Entities are local, citizen-based organizations in Puget Sound that coordinate salmon recovery strategies in their local watershed. Lead entities work with local and state agencies, tribes, citizens, and other community groups to adaptively manage their local salmon recovery chapters and ensure recovery actions are implemented. (Partnership)

Listed Species: Before a species can receive the protection provided by the Endangered Species Act (ESA), it must first be added to the federal lists of endangered and threatened wildlife and plants. The List of Endangered and Threatened Wildlife (50 CFR 17.11) and the List of Endangered and Threatened Plants (50 CFR 17.12) contain the names of all species that have been determined by the U.S. Fish and Wildlife Service (Service) or the National Marine Fisheries Service (for most marine life) to be in the greatest need of federal protection. A species is added to the list when it is determined to be endangered or threatened because of any of the following factors: the present or threatened destruction, modification, or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy

of existing regulatory mechanisms; or other natural or manmade factors affecting its survival. (USFWS)

Local Integrating Organizations (LIO): Local Integrating Organizations are local forums in Puget Sound that collaboratively work to develop, coordinate, and implement strategies and actions that contribute to the protection and recovery of the local ecosystem. Funded and supported by the Puget Sound Partnership, the LIOs are recognized as the local expert bodies for ecosystem recovery in nine unique ecosystems across Puget Sound. (Partnership)

Low Impact Development (LID): Low Impact Development (LID) is a stormwater and land-use management strategy that tries to mimic natural hydrologic conditions by emphasizing techniques including conservation, use of on-site natural features, site planning, and distributed stormwater best management practices (BMPs) integrated into a project design. (ECY)

Managed Aquifer Recharge (MAR): Managed aquifer recharge projects involve the addition of water to an aquifer through infiltration basins, injection wells, or other methods. The stored water can then be used to benefit stream flows, especially during critical flow periods. (NEB)

National Pollutant Discharge Elimination System (NPDES): The NPDES permit program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. Created by the Clean Water Act in 1972, the EPA authorizes state governments to perform many permitting, administrative, and enforcement aspects of the program. (EPA)

Net Ecological Benefit (NEB): Net Ecological Benefit is a term used in ESSB 6091 as a standard that watershed plans (see below for definition) must meet. The outcome that is anticipated to occur through implementation of projects and actions in a plan to yield offsets that exceed impacts within: a) the planning horizon; and, b) the relevant WRIA boundary. See *Final Guidance for Determining Net Ecological Benefit - Guid-2094 Water Resources Program Guidance.* (NEB)

Net Ecological Benefit Determination: Occurs solely upon Ecology's conclusion after its review of a watershed plan submitted to Ecology by appropriate procedures, that the plan does or does not achieves a NEB as defined in the Net Ecological Benefit guidance. The Director of Ecology will issue the results of that review and the NEB determination in the form of an order. (NEB)

Net Ecological Benefit Evaluation: A planning group's demonstration, using NEB Guidance and as reflected in their watershed plan, that their plan has or has not achieved a NEB. (NEB)

New Consumptive Water Use: The consumptive water use from the permit-exempt domestic groundwater withdrawals estimated to be initiated within the planning horizon. For the purpose of RCW 90.94, consumptive water use is considered water that is evaporated, transpired, consumed by humans, or otherwise removed from an immediate water environment due to the use of new permit-exempt domestic wells. (NEB)

Office of Financial Management (OFM): OFM is a Washington state agency that develops official state and local population estimates and projections for use in local growth management planning. (OFM)

Offset: The anticipated ability of a project or action to counterbalance some amount of the new consumptive water use over the planning horizon. Offsets need to continue beyond the planning horizon for as long as new well pumping continues. (NEB)

Permit exempt wells: The Groundwater Code (RCW 90.44), identified four "small withdrawals" of groundwater as exempt from the permitting process. Permit-exempt groundwater wells often provide water where a community supply is not available, serving single homes, small developments, irrigation of small lawns and gardens, industry, and stock watering.

Permit-exempt uses: Groundwater permit exemptions allow four small uses of groundwater without a water right permit: domestic uses of less than 5,000 gallons per day, industrial uses of less than 5,000 gallons per day, irrigation of a lawn or non-commercial garden, a half-acre or less in size, or stock water. Although exempt groundwater withdrawals don't require a water right permit, they are always subject to state water law. (ECY)

Planning groups: A general term that refers to either initiating governments, in consultation with the planning unit, preparing a watershed plan update required by Chapter 90.94.020 RCW, or a watershed restoration and enhancement committee preparing a plan required by Chapter 90.94.030 RCW. (NEB)

Planning Horizon: The 20-year period beginning on January 19, 2018 and ending on January 18, 2038, over which new consumptive water use by permit-exempt domestic withdrawals within a WRIA must be addressed, based on the requirements set forth in Chapter 90.94 RCW. (NEB)

Projects and Actions: General terms describing any activities in watershed plans to offset impacts from new consumptive water use and/or contribute to NEB. (NEB)

Puget Sound Acquisition and Restoration (PSAR) fund: This fund supports projects that recover salmon and protect and recover salmon habitat in Puget Sound. The state legislature appropriates money for PSAR every 2 years in the Capital Budget. PSAR is co-managed by the Puget Sound Partnership and the Recreation and Conservation Office, and local entities identify and propose PSAR projects. (Partnership)

Puget Sound Partnership (Partnership): The Puget Sound Partnership is the state agency leading the region's collective effort to restore and protect Puget Sound and its watersheds. The organization brings together hundreds of partners to mobilize partner action around a common agenda, advance Sound investments, and advance priority actions by supporting partners. (Partnership)

Puget Sound Regional Council (PSRC): PSRC develops policies and coordinates decisions about regional growth, transportation and economic development planning within King, Pierce, Snohomish and Kitsap counties. (PSRC)

RCW 90.03 **(Water Code)**: This chapter outlines the role of the Department of Ecology in regulating and controlling the waters within the state. The code describes policies surrounding surface water and groundwater uses, the process of determining water rights, compliance measures and civil penalties, and various legal procedures.

RCW 90.44 **(Groundwater Regulations)**: RCW 90.44 details regulations and policies concerning groundwater use in Washington state, and declares that public groundwaters belong to the public and are subject to appropriation for beneficial use under the terms of the chapter. The rights to appropriate surface waters of the state are not affected by the provisions of this chapter.

RCW 90.44.050 **(Groundwater permit exemption)**: This code states that any withdrawal of public groundwaters after June 6, 1945 must have an associated water right from the Department of Ecology. However, any withdrawal of public groundwaters for stock-watering purposes, or for the watering of a lawn or of a noncommercial garden not exceeding one-half acre in area, or for single or group domestic uses in an amount not exceeding five thousand gallons a day, or for an industrial purpose in an amount not exceeding five thousand gallons a day, is exempt from the provisions of this section and does not need a water right.

RCW 90.54 (**Water Resources Act of 1971**): This act set the stage for the series of rules that set instream flow levels as water rights, as well as a compliance effort to protect those flows.

RCW 90.82 **(Watershed Planning)**: Watershed Planning was passed in 1997 with the purpose of developing a more thorough and cooperative method of determining what the current water resource situation is in each water resource inventory area of the state and to provide local citizens with the maximum possible input concerning their goals and objectives for water resource management and development.

RCW 90.94 **(Streamflow Restoration)**: This chapter of the Revised Code of Washington codifies ESSB 6091, including watershed planning efforts, streamflow restoration funding program and the joint legislative task force on water resource mitigation and mitigation pilot projects (Foster task force and pilot projects).

Reasonable Assurance: Explicit statement(s) in a watershed plan that the plan's content is realistic regarding the outcomes anticipated by the plan, and that the plan content is supported with scientifically rigorous documentation of the methods, assumptions, data, and implementation considerations used by the planning group. (NEB)

Revised Code of Washington (RCW): The revised code is a compilation of all permanent laws now in force for the state of Washington. The RCWs are organized by subject area into Titles, Chapters, and Sections.

Salmon Recovery Funding Board (SRFB): Pronounced "surf board", this state and federal board provides grants to protect and restore salmon habitat. Administered by a 10-member State Board that includes five governor-appointed citizens and five natural resource agency directors, the board brings together the experiences and viewpoints of citizens and the major state natural resource agencies. For watersheds planning under Section 203, the Department of Ecology will submit final draft WRE Plans not adopted by the prescribed deadline to SRFB for a technical review (RCO and Policy and Interpretive Statement).

Section 202 or Section 020: Refers to Section 202 of ESSB 6091 or Section 020 of RCW 90.94 respectively. The code provides policies and requirements for new domestic groundwater

withdrawals exempt from permitting with a potential impact on a closed water body and potential impairment to an instream flow. This section includes WRIAs 1, 11, 22, 23, 49, 59 and 55, are required to update watershed plans completed under RCW 90.82 and to limit new permit-exempt withdrawals to 3000 gpd annual average.

Section 203 or Section 030: Refers to Section 203 of ESSB 6091 or Section 030 of RCW 90.94 respectively. The section details the role of WRE committees and WRE plans (see definitions below) in ensuring the protection and enhancement of instream resources and watershed functions. This section includes WRIAs 7, 8, 9, 10, 12, 13, 14 and 15. New permit-exempt withdrawals are limited to 950 gpd annual average.

SEPA and SEPA Review: SEPA is the State Environmental Policy Act. SEPA identifies and analyzes environmental impacts associated with governmental decisions. These decisions may be related to issuing permits for private projects, constructing public facilitates, or adopting regulations, policies, and plans. SEPA review is a process which helps agency decision-makers, applications, and the public understand how the entire proposal will affect the environment. These reviews are necessary prior to Ecology adopting a plan or plan update and may be completed by Ecology or by a local government. (Ecology)

Subbasins: A geographic subarea within a WRIA, equivalent to the words "same basin or tributary" as used in RCW 90.94.020(4)(b) and RCW 90.94.030 (3)(b). In some instances, subbasins may not correspond with hydrologic or geologic basin delineations (e.g. watershed divides). (NEB)

Trust Water Right Program: The program allows the Department of Ecology to hold water rights for future uses without the risk of relinquishment. Water rights held in trust contribute to streamflows and groundwater recharge, while retaining their original priority date. Ecology uses the Trust Water Right Program to manage acquisitions and accept temporary donations. The program provides flexibility to enhance flows, bank or temporarily donate water rights. (ECY)

Urban Growth Area (UGA): UGAs are unincorporated areas outside of city limits where urban growth is encouraged. Each city that is located in a GMA fully-planning county includes an urban growth area where the city can grow into through annexation. An urban growth area may include more than a single city. An urban growth area may include territory that is located outside of a city in some cases. Urban growth areas are under county jurisdiction until they are annexed or incorporated as a city. Zoning in UGAs generally reflect the city zoning, and public utilities and roads are generally built to city standards with the expectation that when annexed, the UGA will transition seamlessly into the urban fabric. Areas outside of the UGA are generally considered rural. UGA boundaries are reviewed and sometimes adjusted during periodic comprehensive plan updates. UGAs are further defined in RCW 36.70.

WAC 173-566 **(Streamflow Restoration Funding Rule)**: On June 25, 2019 the Department of Ecology adopted this rule for funding projects under RCW 90.94. This rule establishes processes and criteria for prioritizing and approving grants consistent with legislative intent, thus making Ecology's funding decision and contracting more transparent, consistent, and defensible.

Washington Administrative Code (WAC): The WAC contains the current and permanent rules and regulations of state agencies. It is arranged by agency and new editions are published every two years. (Washington State Legislature)

Washington Department of Ecology (DOE/ECY): The Washington State Department of Ecology is an environmental regulatory agency for the State of Washington. The department administers laws and regulations pertaining to the areas of water quality, water rights and water resources, shoreline management, toxics clean-up, nuclear and hazardous waste, and air quality.

Washington Department of Fish and Wildlife (WDFW): An agency dedicated to preserving, protecting, and perpetuating the state's fish, wildlife, and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities. Headquartered in Olympia, the department maintains six regional offices and manages dozens of wildlife areas around the state, offering fishing, hunting, wildlife viewing, and other recreational opportunities for the residents of Washington. With the tribes, WDFW is a co-manager of the state salmon fishery. (WDFW)

Washington Department of Natural Resources (WADNR or DNR): The department manages over 3,000,000 acres of forest, range, agricultural, and commercial lands in the U.S. state of Washington. The DNR also manages 2,600,000 acres of aquatic areas which include shorelines, tidelands, lands under Puget Sound and the coast, and navigable lakes and rivers. Part of the DNR's management responsibility includes monitoring of mining cleanup, environmental restoration, providing scientific information about earthquakes, landslides, and ecologically sensitive areas. (WADNR)

Water Resources (WR): The Water Resources program at Department of Ecology supports sustainable water resources management to meet the present and future water needs of people and the natural environment, in partnership with Washington communities. (ECY)

Water Resources Advisory Committee (WRAC): Established in 1996, the Water Resources Advisory Committee is a forum for issues related to water resource management in Washington State. This stakeholder group is comprised of 40 people representing state agencies, local governments, water utilities, tribes, environmental groups, consultants, law firms, and other water stakeholders. (ECY)

Watershed Plan: A general term that refers to either: a watershed plan update prepared by a WRIA's initiating governments, in collaboration with the WRIA's planning unit, per RCW 90.94.020; or a watershed restoration and enhancement plan prepared by a watershed restoration and enhancement committee, per RCW 90.94.030. This term does not refer to RCW 90.82.020(6). (NEB)

Watershed Restoration and Enhancement Plan (WRE Plan): The Watershed Restoration and Enhancement Plan is directed by Section 203 of ESSB 6091 and requires that by June 30, 2021, the Department of Ecology will prepare and adopt a watershed restoration and enhancement plan for WRIAs 7, 8, 9, 10, 12, 13, 14 and 15, in collaboration with the watershed restoration and enhancement committee. The plan should, at a minimum, offset the consumptive impact of new permit-exempt domestic water use, but may also include recommendations for projects and actions that will measure, protect, and enhance instream resources that support the recovery of threatened and endangered salmonids. Prior to adoption of an updated plan, Department of Ecology must determine that the actions in the plan will result in a "net ecological benefit" to

instream resources in the WRIA. The planning group may recommend out-of-kind projects to help achieve this standard.

WRIA: Water Resource Inventory Area. WRIAs are also called basins or watersheds. There are 62 across the state and each are assigned a number and name. They were defined in 1979 for the purpose of monitoring water availability. A complete map is available here: https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up

Appendix C – Committee Roster

Entity Representing	Primary Representative Name	Alternate Representative Name
Mason County	Commissioner Kevin Shutty	Commissioner Randy Neatherlin, David Windom
Thurston County	Joshua Cummings	Kaitlynn Nelson, Brad Murphy
City of Shelton	Ken Gill	Mark Ziegler, Jason Dose
Skokomish Indian Tribe	Alex Gouley	Seth Book , Dana Sarff
Squaxin Island Tribe	Jeff Dickison	Paul Pickett
Department of Ecology	Angela Johnson	Mike Noone, Rebecca Brown
Department of Fish and Wildlife	Allison Cook	Darrin Masters, Tristan Weiss, Megan Kernan
Mason County PUD #1	Commissioner Ron Gold	James Reyes, Brandy Milroy, Kristin Masteller
Washington State Chapter Sierra Club	Elaine Packard	Lois Ward
Building Industry Association of Washington	Josie Cummings	
Mason-Kitsap Farm Bureau	Larry Boltz	Paul Miller
Department of Health (ex officio)	Fern Schultz	
Mason Conservation District (ex officio)	John Bolender	Barbara Adkins
Green Diamond (ex officio)	Patti Case	

Appendix D – Operating Principles

Operating Principles and Charter

Watershed Restoration Enhancement
Committee Water Resource Inventory
Area (WRIA) 14

Approved March 14, 2019
Revised and Approved September 10, 2020

SECTION 1: PURPOSE

The purpose of the operating principles and charter is to establish the watershed restoration and enhancement committee, as authorized under RCW 90.94.030, for the purpose of developing a watershed restoration and enhancement plan. The document sets forward a process for meeting, participation expectations, procedures for decision-making, structure of the Committee, communication, and other topics to support the Committee in reaching agreement on a final plan.

SECTION 2. AGREEMENT AND AMENDMENTS TO THE OPERATING PRINCIPLES

The operating principles are established when, all members of the watershed restoration and enhancement committee (Committee) approve them. Participants will work in good faith to participate productively in the development of the operating principles. By approving the operating principles, members of the Committee agree to uphold the principles as outlined in this document. Each entity participating on the Committee will be asked to document their approval of the operating principles in writing by signing a final document.

The Committee may review the operating principles periodically. Any member of the Committee may bring forward a recommendation for an amendment to the operating principles. Amendments will be brought for discussion when a quorum is present and take effect only there is consensus by the full Committee for.

The chair may revise the Appendices without requiring a decision by the Committee. The chair will notify the Committee of any changes to the Appendices. Nothing contained herein or in any amendment developed under the Agreement shall prejudice the legal claims of any party

hereto, nor shall participation in this planning process abrogate any party's authority or the reserved or other rights of tribal governments, except where the obligation has been accepted in writing.

SECTION 3. PARTCIPATION EXPECTATIONS AND GROUND RULES

PARTICIPATION EXPECTATIONS

Each entity invited by Ecology to participate on the Committee, and which has responded indicating their commitment to participate, shall identify a representative and up to two alternates to participate on the Committee. All members of the Committee are expected to work together to make decisions and recommendations to support the preparation of a watershed restoration and enhancement plan that all Committee members support by Ecology's adoption deadline of June 30, 2021. Committee members will, in good faith and using their best professional judgement:

- Actively participate in Committee meetings throughout the process;
- Review materials in preparation for the meetings;
- Review materials following the meetings;
- Engage in workgroups (if applicable);
- Come prepared for discussions and to make decisions (when applicable); and
- Commit to implementing the Committee ground rules (see below).

The chair will consult with the Committee to ensure that adequate time is given for review of materials. Meeting materials will be provided at least 7 days before meetings, with a minimum 14-day review period for documents intended for decision-making or that require feedback. The chair also understands that members may need to discuss decisions with their organizations prior to approval and will work with committee members to establish reasonable review time for materials prior to approval. When possible, Committee members will provide the chair reasonable notice if additional review time is needed prior to a decision.

Committee meetings will take place on a monthly basis for an initial period, with the interval of meetings being modified as needed to meet the deadlines (either more or less frequently). The chair will hold meetings at a convenient location in the watershed. Meetings are expected to last for approximately 4 hours, with the length modified as needed to meet deadlines.

The chair or facilitator will attempt to contact Committee members that did not send a representative or alternate to the meeting. If a Committee member does not participate for 3 consecutive meetings (through sending the representative or alternate), the chair or

facilitator will contact the Committee member to ask if they will continue to participate or forfeit their seat. Committee members will be asked to provide written acknowledgement when forfeiting their seat.

REMOTE PARTICIPATION

It is the expectation that Committee representatives shall attend all meetings in person. In person participation is essential to efficiency, clarity, and honest communication. Although it should not be routine, remote participation can be accommodated when necessary to facilitate Committee member participation. If there are difficulties with technology, the priority will be to continue the meeting with the in-person participants and not delay the meeting to address technology challenges. Representatives participating remotely may take place in decision-making. Representatives are strongly encouraged to attend in-person.

The Committee chair will allow for remote participation (e.g. via phone, web, video conference, etc.) if:

- Notice is provided to the chair or facilitator at least 1 week in advance of the meeting, AND
- Representative and alternates are not available to attend in person, AND
- Meeting room accommodates remote participation.

If extraordinary events, such as a pandemic or natural disaster, require the committee to meet remotely, all meetings will be held remotely and the operating procedures will remain in force, except portions that assume in-person versus remote participation.

GROUND RULES

Water management is inherently complicated and the Committee must work together effectively to develop the watershed restoration and enhancement plan. Therefore, given the range of members' diverse perspectives, the Committee has established the following ground rules to ensure good faith and productive participation amongst its members.

1. Be Respectful
    - Listen when others are speaking. Do not interrupt and do not participate in side conversations. One person speaks at a time.
    - Recognize the legitimacy of the concerns and interests of others, whether or not you agree with them.

- Cooperate with the facilitator to ensure that everyone is given equitable time to state their views. Present your views succinctly and try not to repeat or rephrase what others have already said.
- Silence cell phones and refrain for using laptops during the meeting, except to take notes.
- Respect other communication styles and needs.

2. Be Constructive
    - Participate in the spirit of giving the same priority to solving the problems of others as you do to solving your own problems.
    - Share comments that are solution focused. Avoid repeating past discussions.
    - Do not engage in personal attacks or make slanderous statements. Do not give ultimatums.
    - Ask for clarification if you are uncertain of what another person is saying. Ask questions rather than make assumptions.
    - Work towards consensus. Identify areas of common ground and be willing to compromise.
    - Minimize the use of jargon and acronyms. Attempt to use language observers and laypersons will understand.
    - It is okay to disagree, but strive to reach common ground.
3. Be Productive
    - Adhere to the agenda. Respect time constraints and focus on the topic being discussed.
4. Bring a Sense of Humor and Have Fun.

CONFLICT RESOLUTION

In the event a conflict arises amongst members or established workgroups of the Committee, the following steps should be taken by individuals:

1. Communicate directly with the person or persons whose actions are the cause of the conflict.
2. If the circumstance is such that the person with a conflict is unable or unwilling to communicate directly with the person or persons whose actions are the cause of the conflict, the person shall speak with the Committee chair and facilitator.
3. The conflict should first be brought up verbally. If this does not lead to satisfactory resolution, the conflict should be described in writing to the chair.
4. If such matters are brought to the chair and facilitator, the chair in consultation with the facilitator, will address the conflict as appropriate and

may seek outside or independent assistance as needed.

SECTION 4. MEMBERSHIP

ALTERNATES AND NEW MEMBERSHIP

Committee members shall provide to the chair, in writing, names and contact information for a primary representative and up to two designated alternates from their organization or government. Committee members shall inform the chair in writing of any changes to the primary representative or alternates. If the primary representative cannot attend a meeting, they should, if possible, send a designated alternate and notify the Committee chair and the facilitator as early as possible. It is the responsibility of the primary representative to brief the alternate on previous meetings and key topics arising for discussion in order for the alternate to participate productively. Alternates may participate in decision- making in lieu of the primary representative.

Representatives may call on alternates that attend the meeting at any time to speak. Only one representative from each government or entity shall sit at the table and participate in decision-making at any given meeting.

If the primary representative and alternates are no longer able to attend (staffing change, ongoing scheduling conflicts, etc.), the government or organization shall work with the chair to quickly identify alternative representation from the same government or organization. If no alternative representative is available from the same government or organization, an alternate entity that can represent the same interest is allowed and shall be brought forward to the chair for approval. Replacement members are subject to the following provisions:

- The entity cannot veto, request a new decision, or revisit items previously decided on by the Committee;
- The entity signs an intent to participate and provides primary and alternate Committee members;
- The entity agrees to and abides by the operating principles; and
- The entity joins the Committee and participates in meetings starting no later than September 10, 2020.

REMOVAL FROM THE COMMITTEE

Entities must participate in the committee process after September 10, 2020 to retain membership on the committee. If an entity does not attend at least one committee or workgroup meeting over any three-month period it will be assumed they have withdrawn from

the committee and will be removed as members, unless the member provides a written explanation and requests to remain on the committee. The Chair, via electronic communication and a courtesy phone call, will inform any committee member who has not been participating for two months with this information to provide a minimum of one-month notice before removal.

RESIGNATION FROM THE COMMITTEE

If an entity no longer wishes to participate in the committee process or the final plan approval, they should send written notice (electronic or mailed notice) to the chair as early as possible prior to their resignation. Advance notice will support the chair and facilitator in managing consensus building and voting procedures.

EX-OFFICIO AND AD-HOC MEMBERS

The Committee may decide to invite an additional entity to join the Committee as an ex officio non- voting member. Ex Officio members are invited to sit at the Committee table and participate actively in discussions and review of documents, but shall not participate in Committee decision-making.[55] Ex- officio members shall adhere to the operating procedures.

The Committee may decide to invite an individual or organization to participate in select meetings or agenda items where additional expertise or perspective is desired. Ad hoc members will be invited by the chair to sit at the Committee table, participate actively in discussions, and review of documents for the specified agenda items. They shall not participate in committee decision-making.

WORKGROUPS AND ADVISORY GROUPS

The Committee may establish workgroups or subcommittees as it sees fit. Workgroups may be temporary, established to achieve a specific purpose within a finite time frame, or a standing workgroup addressing the goals of the Committee. The decision to form a workgroup is a procedural decision, as it is not required by the legislature, and may be developed at the discretion of the Committee or the chair in order to support Committee decision-making. All Committee workgroups are workgroups of the whole, meaning their role is to support the efforts of the Committee and all Committee members are welcome to

participate in any workgroup formed by the Committee. The chair or Committee may also engage established workgroups in the watershed or invite non-Committee members to participate on the workgroups if they bring capacity or expertise not available on the Committee. No binding decisions will be made by the workgroups; all issues discussed by workgroups shall be communicated to the Committee as either recommendations or findings as appropriate. The Committee may, or may not, act on these workgroup outcomes as it deems appropriate.

SECTION 5. ROLE OF THE CHAIR AND COMMITTEE SUPPORT

RCW 90.94.030 (2b) states that "The department shall chair the watershed restoration and enhancement committee…" Ecology's streamflow restoration implementation lead chairs the Committee on behalf of the agency. The chair shall participate in Committee decision making.[56] The role of the chair is to help the Committee complete the plan with the goal to attain full agreement from the Committee members. If full agreement cannot be obtained, the chair shall ensure all opinions inform future decision-making for the final plan. In the event that the chair is unable to attend a scheduled meeting due to illness or other unanticipated absence, Ecology will designate an interim chair to avoid cancelling the meeting. The interim chair may participate in decision-making.

The chair, with assistance from Ecology technical staff, contractors, members of the Committee, and/or workgroups, shall prepare the watershed restoration and enhancement plan for the Committee's review, comment, and approval.

Ecology may provide the Committee a facilitator. The role of the facilitator is to focus on process and support the Committee in productive discussions and decision-making. Ecology will provide administrative support for the Committee as well as technical assistance through Ecology staff and consultants. Ecology will seek input from the Committee on consultant selection prior to entering into contract.

[56] Ecology leadership has determined that only entities specified in the legislation will participate in Committee decision-making. However, the Committee may decide to include non-decision-making members if they choose.

SECTION 6. DECISION MAKING

QUORUM

A quorum is constituted when two-thirds of the entities represented on the Committee are present (either in person or on the phone). A quorum of current membership must be present for decision- making to occur. Even if both a primary representative and alternates are present, each entity of the Committee counts only once for purposes of determining a quorum.

CONSENSUS

This planning process, by statutory design, brings a diversity of perspectives to the table. It is therefore important the Committee identifies a clear process for how it will make decisions. The Committee has elected to make decisions by consensus. The Committee made this choice in part because the authorizing legislation requires that the final plan must be approved by all members of the Committee prior to Ecology's review (RCW 90.94.030[3] "…all members of a watershed restoration and enhancement committee must approve the plan prior to adoption"). Therefore it follows that consensus during the foundational decisions upon which the plan is constructed will serve as the best indicators of the Committee's progress toward an approved plan.

Ideally, consensus represents whole-hearted agreement and support by all Committee members; however, it can be achieved with less than this level of enthusiasm. For example, some members might disagree with all or part of a decision, but based on listening to everyone else's input might agree to let the decision go forward because it is the best decision the entire group can achieve at the current time. For purposes of this effort, consensus is defined as an outcome all Committee members can at least "live with" and agree not to block or oppose during implementation, even if it is not their preferred choice.

The Committee recognizes four levels of consensus:

- I can say an unqualified "yes"!
- I can accept the decision.
- I can live with the decision.
- I do not fully agree with the decision; however, I will not block or oppose it now or during implementation.

Consensus will be assessed by polling committee members either in person at meetings or electronically by email. Ecology staff and the facilitator will record when consensus is achieved and will document any relevant background or context for the decision, including

when a Committee member is consenting to something even though it is not their preferred choice. Abstentions and the reasons for them also will b e described. During in person polling the following protocol will be used:

- Thumbs up – consent
- Thumbs sideways – consent with reservation but can live with it and will move forward with the process
- Thumbs down – do not consent
- Five fingers – abstain

In recognition that consensus can take time to achieve and in some cases decisions will need to be made quickly to stay on track to meet the plan deadline, the Committee may continue moving forward with deliberations even if it has not reached consensus on all interim decisions leading up to the final plan (e.g. growth scenarios, inclusion of individual projects, etc.). This is intended to keep the process moving, and is put forth with the recognition that these differences will need to be resolved before the end of the process to have a plan all Committee members can approve. Ecology staff and the facilitator will clearly document where there is consensus and where there is not consensus on all interim decisions. Where there is not consensus, care will be taken to describe the different perspectives and reasons for them. Differing parties with Ecology staff, the facilitator, and other Committee members will make a plan to try to resolve differences and reach consensus in time for the final plan approval. A "parking lot" may be used to capture ideas that the group cannot agree on or would like to return to at a later date for further discussion; however, this will not jeopardize meeting deadlines by postponing issues which must be resolved so deliberations can move forward. Committee members will work together to establish schedules and deadlines to ensure that final plans can be completed on time.

ELECTRONIC DECISION MAKING

In the case a decision is needed prior to the next Committee meeting, the chair can request an electronic decision via email or survey. This approach will only be used for time-critical items or when a quorum was not present at the Committee meeting where the issue was to be decided. The Department of Ecology will allow a minimum of 3 working days for responses to requests for an electronic decision. A non-response is considered an "abstention."

The result of an electronic decision will be reported at the next Committee meeting and the chair or facilitator may request confirmation to reaffirm the electronic decision.

INFORMAL STRAW POLLING

From time to time, the chair or the facilitator may take a straw poll to gather information on Committee needs and perspectives. Straw polling will be used solely for information-gathering and will not result in a decision.

LETTERS OF SUPPORT FOR PROJECTS

The Committee may choose to submit a letter of support for streamflow restoration projects applying for funding through Ecology Streamflow Restoration Funding program or other sources. The decision to submit a letter of support shall follow the voting process as described above. If the Committee does not approve a letter of support for a project, individual Committee representatives are not prohibited from submitting a letter of support from their entity or government.

FINAL PLAN APPROVAL

RCW 90.94 (3) states that "… all members of a watershed restoration and enhancement committee must approve the plan prior to adoption." Approval will be achieved if all Committee members consent to the final plan. To ensure no confusion on this issue, each entity participating on the Committee will be asked to document their consent to the final plan in writing (e.g., by responding to an email or signing a final document).

The facilitator will poll for and document consensus. Written and verbal votes will be shared with all Committee members. If consensus is not reached on the plan, the facilitator/note-taker will document which plan elements (if any) there is consensus on and which there is not consensus on and will describe the full range of different perspectives where there is not consensus. To ensure their perspectives are also available in their own words, each entity will have the opportunity to submit a letter describing their views.

The final plan approval may also be given verbally in a Committee meeting, or in writing when in-person participation is not possible:

- Approve
- Disapprove

SECTION 7. PUBLIC COMMENTS AND PUBLIC MEETING NOTICE

The agenda will provide time for public comment at each meeting. In general, members of the public will only be called on to speak during public comment, although the chair and facilitator may make exceptions on a case-by-case basis. The chair and facilitator will determine the time and extent of the public comment period based on the agenda for each

meeting, with input from the Committee. While the Committee is not explicitly required to follow the requirements of the Open Public Meetings Act, reasonable efforts will be made to post information and materials on the pertinent website in a timely manner to keep the public informed.

SECTION 8. COMMITTEE AND MEDIA COMMUNICATION

To support clear communication with the Committee, Ecology will:

1. Operate a list serve for Committee members and interested parties
2. Develop and manage a website for members of the Committee to access documents such as agendas, meeting summaries, technical reports, calendar, and other items as requested by the Committee

The facilitator and Ecology shall prepare a written meeting summary for each Committee meeting within 10 business days of the last Committee meeting. The chair will distribute the meeting summary to the Committee via an email and the facilitator or Ecology will post the summary on the Committee webpage. The summary, at a minimum, will include a list of attendees, decisions, discussion points, assignments, and action items. If comments are cited in such summaries, each speaker will be identified. Meeting summaries will capture areas of agreement and disagreement within the group. The Committee will review and accept (or revise) meeting summaries at the following meeting.

COMMUNICATION WITH THE MEDIA

When speaking to the media or other venues, the Committee members will clearly identify any opinions expressed as their personal opinions and not necessarily those of the other Committee members or the Committee as a whole. The Committee members will not attempt to speak for other members of the group or to characterize the positions of other members to the media or other venues. Comments to the media will be respectful of other Committee members.

Following significant accomplishments, the Committee may request Ecology to issue formal news releases or other media briefing materials. All releases and information given to the media will accurately represent the work of the Committee. Ecology will make every effort to provide the Committee with materials in advance for input, recognizing that media timelines may not allow for adequate review by the Committee.

Appendix E – Regional Aquifer Units within WRIA 14

Aquifer	Description	Typical Thickness
AA – Alluvial Aquifer	Composed of recent alluvium (Qa), this aquifer consists of clay, silt, sand, and gravel deposits. This aquifer is laterally discontinuous and limited to stream valleys.	A few feet up to about 50 feet thick, where present. Where saturated, the unit is often in direct continuity with surface-water bodies.
UA – Upper Aquifer	This aquifer is mainly composed of deposits from the Vashon recessional outwash (Qgo). The deposits are usually poorly- to moderately-sorted sand or sand and gravel, sometimes with lenses of silt or clay. The unit is generally unconfined.	The thickness varies from 5 feet up to about 250 feet.
UC – Upper Confining Unit	This confining unit is composed primarily of Vashon till (Qgt) and consists of unsorted and compacted clay, silt, sand, and gravel. This unit separates the Upper Aquifer and Middle Aquifer.	The thickness ranges from 5 feet up to about 360 feet.
MA – Middle Aquifer	This aquifer is mainly composed of deposits from the Vashon advance outwash (Qga). The deposits are usually moderately- to well-sorted sand, gravel, and silt with occasional lenses of silt or clay. Although laterally extensive, this aquifer is discontinuous where surface water drainages have incised through the overlying till and into the outwash. This aquifer is generally confined, but locally unconfined conditions may occur where the aquifer is not fully saturated, or where it is exposed at land surface.	The thickness ranges from a few feet to about 150 feet.
LC – Lower Confining Unit	This confining unit is primarily composed of pre-Vashon glaciolacustrine and interglacial sediments and consists of clay and silt, with some till and occasional deposits of peat and wood. This unit is laterally extensive and separates the Middle Aquifer and Lower Aquifer.	The thickness ranges from several tens of feet to about 350 feet.

Aquifer	Description	Typical Thickness
LA – Lower Aquifer	Sometimes also called the "sea-level aquifer" due its coincident elevation, this unit is primarily composed of pre-Vashon outwash deposits consisting of sand and gravel, with some lower-permeability deposits of silt, clay, or till. This aquifer is confined by the overlying Middle Confining Unit. This aquifer is present throughout most of the WRIA, except the southeast portion where bedrock is at or near ground surface.	The thickness ranges from 5 feet to about 200 feet.

Appendix F – WRIA 14 Surface Water Quality Assessment Category 4 and 5 Listings in WRIA 14

WATERBODY	CURRENT CATEGORY	PARAMETER NAME	TMDL NAME	MEDIUM NAME
BIG BEND CREEK	5	Bacteria		Water
BURNS CREEK	4A	Bacteria	Totten, Eld, and Skookum Inlets Tributaries Bacteria TMDL	Water
	5	pH		Water
	5	Temperature		Water
	5	Bacteria		Water
CAMPBELL CREEK	5	Temperature		Water
CASE INLET AND DANA PASSAGE	5	Bacteria		Water
	5	Dissolved Oxygen		Water
	5	Dissolved Oxygen		Water
CLARY CREEK	4A	Temperature	Totten, Eld, and Skookum Inlets Tributaries Temperature TMDL	Water
CRANBERRY CREEK	5	Temperature	Cranberry, Johns, and Mill Creeks Temperature TMDL	Water
	5	Temperature		Water
DEER CREEK	5	Dissolved Oxygen		Water
	5	Temperature		Water
DEVEREAUX CREEK	5	Bacteria		Water
GOLDSBOROUGH CREEK	4A	Bacteria	Oakland Bay, Hammersley Inlet Tribs Bacteria TMDL	Water
	5	Temperature		Water
	4C	Instream Flow		Water
GREAT BEND/LYNCH COVE	5	Dissolved Oxygen		Water

WATERBODY	CURRENT CATEGORY	PARAMETER NAME	TMDL NAME	MEDIUM NAME
HAMMERSLEY INLET	4A	Bacteria	Oakland Bay, Hammersley Inlet Tribs Bacteria TMDL	Water
HAPPY HOLLOW CREEK	5	Bacteria		Water
HOLYOKE CREEK	5	Bacteria		Water
ISLAND LAKE	4C	Invasive Exotic Species		Habitat
JOHNS CREEK	5	Temperature	Cranberry, Johns, and Mill Creeks Temperature TMDL	Water
JOHNS CREEK	4C	Instream Flow		Water
	5	Temperature		Water
KENNEDY CREEK	4A	Bacteria	Totten, Eld, and Skookum Inlets Tributaries Bacteria TMDL	Water
		Temperature	Totten, Eld, and Skookum Inlets Tributaries Temperature TMDL	Water
	5	Dissolved Oxygen		Water
LIMERICK LAKE	4C	Invasive Exotic Species		Habitat
LITTLE SKOOKUM INLET	5	Dissolved Oxygen		Water
MALANEY CREEK	5	Temperature		Water
MASON LAKE	4C	Invasive Exotic Species		Habitat
MILL CREEK	5	Temperature	Cranberry, Johns, and Mill Creeks Temperature TMDL	Water
	5	Temperature		Water
	4C	Instream Flow		Water
	5	Dissolved Oxygen		Water
MULBERG CREEK	5	Bacteria		Water

WATERBODY	CURRENT CATEGORY	PARAMETER NAME	TMDL NAME	MEDIUM NAME
OAKLAND BAY	4A	Bacteria	Oakland Bay, Hammersley Inlet Tribs Bacteria TMDL	Water
PERRY CREEK	4A	Bacteria	Totten, Eld, and Skookum Inlets Tributaries Bacteria TMDL	Water
	5	Dissolved Oxygen		Water
PIERRE CREEK	5	pH		Water
	4A	Bacteria	Totten, Eld, and Skookum Inlets Tributaries Bacteria TMDL	Water
	5	Dissolved Oxygen		Water
PRICKETT LAKE	4C	Invasive Exotic Species		Habitat
SCHNEIDER CREEK	4A	Bacteria	Totten, Eld, and Skookum Inlets Tributaries Bacteria TMDL	Water
	5	Dissolved Oxygen		Water
SHELTON HARBOR (INNER)	4A	Bacteria	Oakland Bay, Hammersley Inlet Tribs Bacteria TMDL	Water
SKOOKUM CREEK	4A	Bacteria	Totten, Eld, and Skookum Inlets Tributaries Bacteria TMDL	Water
		Temperature	Totten, Eld, and Skookum Inlets Tributaries Temperature TMDL	Water
	5	Temperature	Totten, Eld, and Skookum Inlets Tributaries Temperature TMDL	Water

WATERBODY	CURRENT CATEGORY	PARAMETER NAME	TMDL NAME	MEDIUM NAME
	4C	Instream Flow		Water
	5	Dissolved Oxygen		Water
SPENCER LAKE	4C	Invasive Exotic Species		Habitat
TWANOH CREEK	5	Bacteria		Water
UNCLE JOHN CREEK	4A	Bacteria	Oakland Bay, Hammersley Inlet Tribs Bacteria TMDL	Water
	4A	Bacteria	Oakland Bay, Hammersley Inlet Tribs Bacteria TMDL	Water
	5	Temperature		Water
				Water
UNNAMED CREEK (TRIB TO HOOD CANAL)	5	Bacteria		Water
UNNAMED CREEK (TRIB TO SKOOKUM CREEK)	4A	Temperature	Totten, Eld, and Skookum Inlets Tributaries Temperature TMDL	Water
	5	Temperature		Water
UNNAMED DITCH (TRIB TO TOTTEN INLET)	4A	Bacteria	Totten, Eld, and Skookum Inlets Tributaries Bacteria TMDL	Water

Appendix G – Subbasin Delineation Memo

To:	Angela Johnson, Washington State Department of Ecology
From:	Chad Wiseman, HDR
Copy:	
Date:	June 26, 2019
Subject:	WRIA 14 Draft Subbasin Delineation (Work Assignment WA-01, Task 2)

1.0 Introduction

HDR is providing technical support to the Washington State Department of Ecology and the Watershed Restoration and Enhancement (WRE) committee for Water Resource Inventory Area (WRIA) 14. The Streamflow Restoration law (Revised Code of Washington [RCW] Chapter 90.94) requires that WRE plans include actions to offset new consumptive-use impacts associated with permit-exempt domestic water use. RCW 90.94.030(3)(b) states, "The highest priority recommendations must include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary." Therefore, delineations must be developed for the subbasins in WRIA 14 that will be used as a spatial framework for growth projections, consumptive-use estimates, and priority offset projects. The Net Ecological Benefit (NEB) evaluation will also be based on this framework. This technical memorandum addresses the basis for subbasin delineation in WRIA 14 (Kennedy-Goldsborough).

2.0 Subbasin Delineation

This section explains the initial and draft delineations for WRIA 14.

2.1 Initial Delineation

The WRIA 14 workgroup (a subcommittee of the WRE committee) was tasked to delineate subbasin boundaries for discussion at WRE committee meetings. The WRIA 14 workgroup started with the subbasins used in the draft WRIA 14 watershed management plan that was pursuant to Chapter 90.82 RCW (Plateau 2006). These subbasins were organized based on the receiving saltwater body. During this watershed planning process, the subbasin discharging to Hood Canal was co-opted by the WRIA 16 watershed plan. This subbasin is part of WRIA 14 and was included for the purposes of this Chapter 90.94 RCW planning process.
The following subbasins were defined in the initial delineation:

- Hood: includes multiple small drainages discharging directly to the Hood Canal
- Case: includes Sherwood Creek and multiple small drainages that discharge to Case Inlet, including Harstine Island and Squaxin Island
- Goldsborough: includes all drainages discharging to Oakland Bay, including Deer Creek, Cranberry Creek, Johns Creek, Goldsborough Creek, Mill Creek, and other small drainages
- Skookum: includes all drainages discharging to Little Skookum Inlet, including Skookum and other small drainages

• Kennedy: includes all drainages discharging to Totten and Eld inlets, including Kennedy Creek, Perry Creek, and other small drainages

The workgroup requested that an alternative delineation be developed that had smaller drainage granularity. Twelfth-field hydrologic unit codes (HUCs) (USGS 2013) were applied to WRIA 14 as an alternative. The comparison of the 12th-field HUCs delineation with 12th-field hydrologic units resulted in 16 subbasins and, in some cases, subbasins were viewed as too small (e.g., Snodgrass Creek, discharging to Totten Inlet).

2.2 Draft Delineation

During the May 9, 2019, WRIA 14 WRE committee meeting, HDR presented a comparison between the initial subbasin delineation (based on the draft Watershed Management Plan and the south shore of Hood Canal) with the 12th-field HUCs. The comparison included stream distribution, fisheries resources, and stream management units (i.e., streams with closures and minimum flows) associated with the WRIA 14 instream flow rule (Washington Administrative Code [WAC] Chapter 173-514).

During the June 7, 2019, WRIA 14 workgroup meeting, HDR presented the same comparison as during the May 9, 2019, WRE committee meeting. The Squaxin Island Tribe made recommendations for a draft delineation premised with the understanding that there would be an opportunity for revision after the growth projections and consumptive-use estimates were completed and compared to the draft delineation. The recommendations included separating Harstine, Squaxin, and Hope islands from the rest of the initial "Case" subbasin. The recommendations also included breaking up the initial "Goldsborough" subbasin into three separate subbasins (Oakland, Goldsborough, and Mill). The Goldsborough Creek and Mill Creek watersheds would be their own respective subbasins.

The remainder of the initial "Goldsborough" subbasin (including Deer Creek, Cranberry Creek, and Johns Creek) would compose the Oakland subbasin. The draft subbasin delineation is depicted in Figure 1. The following subbasins were defined in the draft delineation:

• Hood: includes multiple small drainages discharging directly to Hood Canal
• Case: includes Sherwood Creek and multiple small drainages that discharge to Case Inlet
• Harstine: includes Harstine, Squaxin, and Hope islands
• Oakland: includes Deer Creek, Cranberry Creek, Johns Creek, and other small drainages discharging to Oakland Bay
• Goldsborough: includes the Goldsborough Creek watershed
• Mill: includes the Mill Creek watershed and small drainages discharging to the south shore of Hammersley Inlet
• Skookum: includes all drainages discharging to Little Skookum Inlet, including Skookum and other small drainages
• Kennedy: includes all drainages discharging to Totten and Eld inlets, including Kennedy Creek, Perry Creek, and other small drainages

The WRIA 14 workgroup recommended that this draft subbasin delineation be approved by the WRIA 14 WRE committee on June 13 2019.

3.0 Conclusion

The WRIA 14 workgroup draft subbasin delineation will be used as an organizational framework for growth projection and consumptive-use scenarios, pending approval by the WRIA 14 WRE committee. The current draft subbasin delineation is currently only a recommendation by the WRIA 14 workgroup. Furthermore, the draft subbasin delineation is subject to change after evaluation with the growth projection and consumptive-use scenarios. The final subbasin delineation will be used as a framework for consumptive-use impacts and offset benefit accounting and for the NEB evaluation.

4.0 References

Plateau Technical Communication Services (Plateau). 2006. WRIA 14 Watershed Management Plan: Kennedy–Goldsborough Watershed, Final Draft.

Revised Code of Washington (RCW). 2019. Watershed Planning, Chapter 90.82 RCW. Accessed on June 23, 2019, at https://app.leg.wa.gov/rcw/default.aspx?cite=90.82.

RCW. 2019. Streamflow Restoration, Chapter 90.94 RCW. Accessed on June 23, 2019, at https://app.leg.wa.gov/RCW/default.aspx?cite=90.94.

U.S. Geological Survey and U.S. Department of Agriculture, Natural Resources Conservation Service (USGS). 2013. Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD) (4 ed.): Techniques and Methods 11–A3, 63 p., https://pubs.usgs.gov/tm/11/a3/.

Appendix H – Permit-Exempt Growth and Consumptive Use Summary Technical Memo

To:	Angela Johnson, Washington State Department of Ecology
From:	Chad Wiseman, HDR, Malia Bassett, HDR
Copy:	
Date:	July 6, 2020
Subject:	WRIA 14 Permit-Exempt Growth and Consumptive Use Summary (Work Assignment 2, Tasks 2 and 3)

Introduction

HDR is providing technical support to the Washington State Department of Ecology (Ecology) and the Watershed Restoration and Enhancement (WRE) committees for Water Resource Inventory Area 14. This memorandum provides a summary of the analytical methods used for Work Assignment 2 Task 2: Consumptive Use (CU) Estimates, and the final estimates of consumptive use per WRIA.

Under Revised Code of Washington (RCW) 90.94, consumptive water use by permit-exempt connections occurring over the planning horizon must be estimated to establish the water use that watershed restoration plans and plan updates are required to address and offset. This memorandum summarizes permit-exempt connections and related consumptive use of groundwater that is projected to impact WRIA 14 over the planning horizon.

This memorandum includes:

- A summary of WRIA 14 initial permit-exempt growth and an alternative scenario of permit-exempt growth.
- A summary of WRIA 14 initial and alternative scenario consumptive use using two different methods.

WRIA 14 Permit-Exempt Growth Projection Methods

Permit-exempt growth over the planning horizon was projected using methods at the county scale and then combined at the WRIA scale. HDR worked directly with Mason County to develop and implement growth projection methods. Thurston County (working with the Thurston Regional Planning Council) provided methods and results for Thurston County.

HDR worked with the WRIA 14 workgroup and Committee to define one alternative growth scenario that allowed for some permit-exempt growth in water system boundaries based on the proportion of parcels not currently served by their respective water systems.

Mason County

The Mason County initial permit-exempt growth projections were developed using the following methods:

1. Develop growth projections based on the Mason County Comprehensive Plan (the comprehensive plan is based on Office of Financial Management (OFM) medium population growth estimates, and conversion to dwelling units based on assumed people per dwelling unit).
2. Determine available land for single family domestic units and determine proportion of build-out capacity by county Urban Growth Areas (UGAs) and rural lands.
3. Apply growth projections to buildable lands.
4. Overlay subbasins to determine new permit-exempt connections in each subbasin.

Initial growth projections for Mason County have increased, based on updating parcel data for the application of growth projections to buildable lands (i.e., parcels that were streets or waterbodies). The results were organized by subbasin. The distribution of projected permit-exempt growth within subbasins was reported with a heat map.

An alternative permit-exempt growth projection scenario was developed by assuming that some permit-exempt growth will occur in water system areas. It was assumed that growth in each respective water system will be proportional to buildable parcels without water system hookups relative to parcels with water system hookups. The following methods were applied on top of the initial methods:

1. Define total buildable parcels in GIS, using Department of Health (DOH) service area polygons and county parcel data.
2. Define total approved water system connections (built out + available) and active water system connections (built out) using the DOH Sentry database (DOH 2019).
3. Buildable parcels with water system hookup = total approved minus active water system connections.
4. Buildable parcels without water system hookup = total buildable parcels minus total approved water system connections.
5. Define proportion of permit-exempt growth within each water system by dividing number of buildable parcels without water system hookups by total number of buildable parcels.
6. Multiply proportion of permit-exempt growth within each respective water system by total growth projected to occur in that water system.
7. Sum additional permit-exempt growth by subbasin and add to initial permit-exempt growth projection.

Thurston County Methods

The Thurston County initial permit-exempt growth projections were developed using the following methods:

1. Develop 20-year growth projections based on OFM medium population growth estimates, and conversion to dwelling units based on assumed people per dwelling unit
2. Develop residential capacity estimates.
3. Allocate growth to parcels based on recent residential development and permit trends, where capacity is available.
4. Estimate the amount of development on permit-exempt connections based on the following criteria provided by Thurston County:
    a) Located outside incorporated cities; growth in incorporated cities is assumed to connect to a municipal water system.
    b) Water systems within UGAs; permit-exempt growth is assumed to occur on parcels with no sewer service.
    c) Rural water systems; assumed no permit-exempt growth.

These Thurston County growth projection methods and results have not changed since the original estimate was provided to Ecology and the WRIA 14 WRE Committee (HDR 2019; Appendix B). The results were calculated for the Thurston County portion of the Kennedy subbasin. The distribution of projected permit-exempt growth within subbasins was further defined using a buildable lands analysis and was reported with a heat map (Appendix B).

An alternative permit-exempt growth projection scenario was developed by assuming that some permit-exempt growth will occur in the rural water system areas. It was assumed growth in each respective water system will be proportional to buildable parcels without water system hookups relative to parcels with water system hookups. The methods defined for the Mason County alternative growth scenario (see Mason County above) were used to define permit-exempt growth in these rural water systems.

WRIA 14 Consumptive Use Methods

Under RCW 90.94, consumptive water use (consumptive use) by permit-exempt connections that are forecast to be installed over the planning horizon to service rural growth must be estimated to establish the water offsets required under the Streamflow Restoration law. The following definitions from the *Final Guidance for Determining Net Ecological Benefit - ESSB 6091 - Recommendations for Water Use Estimates* (Ecology's Final NEB Guidance) are used in this memorandum as a guide to estimate consumptive water use by permit-exempt connections (Ecology 2019).

- Consumptive Use: water that evaporates, transpires, is consumed by humans, or is otherwise removed from an immediate water environment.

- Domestic Use: includes both indoor and outdoor household uses, and watering of a lawn and noncommercial garden.
- New Consumptive Water Use: The consumptive water use from the permit-exempt domestic groundwater withdrawals estimated to be initiated within the 20-year planning horizon (2020–2040; planning horizon). The required water offset is equal to new consumptive water use.
- Net Ecological Benefit: The outcome that is anticipated to occur through implementation of projects and actions in a plan to yield offsets that exceed impacts within (a) the planning horizon and (b) the relevant WRIA boundary.
- Water Offsets: Projects that put water back into aquifers or streams that offset new consumptive water use.

Ecology has provided guidance for estimating indoor and outdoor consumptive water use in Ecology's Final NEB Guidance (Ecology 2019).

Consumptive use estimates are divided into two components: the indoor and outdoor portions of use. The use patterns and consumptive portions of indoor versus outdoor use associated with permit-exempt connections are different; therefore, separate approaches within each method that account for these differences are used to estimate consumptive use.

Ecology's indoor consumptive water use guidance includes literature-based assumptions on per-capita indoor water use and the consumptive proportion. Outdoor consumptive water use guidance includes methods for the estimation of irrigated area, assumed irrigation requirements, irrigation efficiency, and the consumptive proportion. Ecology's guidance also recommends local corroboration using water system meter data for both indoor and outdoor estimates (Ecology 2018, 2019). For purposes of this technical memorandum, Ecology's method for estimating consumptive use is called the Irrigated Area method, and estimation of consumptive use using local water system meter data is called the Water System Data method.

Consistent with the Final NEB guidance, the Committee assumed that impacts from consumptive use on surface water are steady-state, meaning that impacts to the stream from pumping do not change over time. This assumption is based on the wide distribution of future well locations and depths across varying hydrogeological conditions.

Irrigated Area Method

Based on Ecology's Final NEB Guidance (Ecology 2019), estimating indoor and outdoor consumptive water use included literature-based assumptions for both the per capita indoor water use and indoor and outdoor use proportions.

Indoor Consumptive Use – Irrigated Area Method

The following assumptions were used to estimate indoor consumptive water use by occupants of a dwelling unit (Ecology 2018, 2019):

- 60 gallons per day (gpd) per person within a household

- 2.5 persons per household (or as otherwise defined by the Counties)
- 10 percent of indoor use is consumptively used

Most homes served by a permit-exempt connection use septic systems for wastewater (Ecology 2019). This method assumes that 10 percent of water entering the septic system will evaporate out of the septic drain field and the rest will be returned to the groundwater system.

Assuming that there is one permit-exempt connection per dwelling unit, a "per permit-exempt connection" consumptive use factor was applied to the growth projections forecast in each subbasin to determine total indoor consumptive use per subbasin. This method is summarized by the following equation:

$$HCIWU\ (gpd) = 60\ gpd\ x\ 2.5\ people\ per\ household\ x\ 10\%\ CUF$$

or

$$HCIWU\ (afy) = 60 gpd * 2.5\ people\ per\ house * 365\ days * 0.00000307\ AF/gallon * 10\%\ CUF$$

Where:

HCIWU = Household Consumptive Indoor Water Use (gpd)

afy = acre-feet per year

CUF = Consumptive use factor

This estimate of indoor consumptive water use per household is 15 gpd and can be annualized and converted to acre-feet per year (AFY) or cubic feet per second (cfs).

Outdoor Consumptive Use – Irrigated Area Method

Ecology (2018, 2019) recommends estimating future outdoor water use based on an evaluation of the average outdoor irrigated area for existing dwelling units served by permit-exempt connections. To calculate the consumptive portion of total outdoor water required per connection, Ecology recommends:

- Estimating the average irrigated lawn area (pasture/turf grass) per parcel;
- Applying crop irrigation requirements;
- Correcting for application efficiency (75 percent efficiency recommended by Ecology Guidance) to determine the total outdoor water required over a single growing season; and
- Applying a percentage of outdoor water that is assumed to be consumptive. This method assumes that 80 percent of outdoor domestic water use is consumed by evaporation and transpiration.

Future outdoor water use may be based, in part, on an estimate of the average outdoor irrigated area for existing homes served by permit-exempt domestic wells (Ecology 2018, 2019). HDR estimated the average irrigated lawn area for WRIA 14 by delineating the apparent

irrigated area in 80 parcels identified as containing a dwelling unit served by a permit-exempt well in WRIA 14, and averaging them (Attachment A). The irrigated areas were delineated using one technician and a standard method. The average irrigated area per permit-exempt connection in WRIA 14 was estimated to be 0.07 acre. The majority of the parcels evaluated did not have an apparent irrigated area (i.e., most parcels had no irrigated area).

Bias in the irrigated area delineation methods was evaluated by doing a side-by-side comparison study with another consulting form that was providing similar technical support for the WRIA 7, 8, and 9 WRE plans. This comparability study concluded that there was no inherent bias in the methods. Overall method bias was also evaluated by comparing the CU calculated with the Irrigated Area method to specific parcels with meter records (Attachment B). The Irrigated Area method overestimated overall water use, relative to the actual metered use.

Because of the high proportion of zero irrigated acreage measurements contributing to the 0.07-acre irrigated acreage average, and because of the large variability in the results (i.e., large standard deviation), HDR proposed a range of alternatives to mitigate that uncertainty:

- To account for the uncertainty of detecting small areas of irrigation, the Committee could impute the zero values with a "minimum detection" irrigated area of 0.05 acre, which would result in a 0.10-acre average irrigated area size.
- HDR completed an irrigated area comparability study for the irrigated area parcel analysis, and determined that an additional way to account for uncertainty in "human error" could be done using a "correction factor," which would result in a 0.11-acre average irrigated area size.
- HDR has completed a statistical analysis of their data, and has determined that using the 95 percent Upper Confidence Limit of the data (based on initial analysis with 0 values) could be an additional way to account for uncertainty, which would result in a 0.14-acre average irrigated area size.

Initially, the WRIA 14 Committee decided to move forward with a "primary working number" and a "working number for comparison." The primary working number is an average irrigated acreage of 0.10 acre (average value with imputed minimum detection values of 0.05 acre). The working number for comparison is 0.14 acre, which is the non-parametric 95th Upper Confidence Limit of the mean. Consumptive use based on both acreages were evaluated and compared to the consumptive use calculated from the Water System Data Method. The Committee later agreed by consensus to include the consumptive use estimate based on the 0.10 acre average irrigated area as the "most likely" estimate in the plan, and the consumptive use estimate based on the 0.14 acre average irrigated area as a higher goal to achieve through adaptive management.

Crop irrigation requirements, irrigation efficiency and outdoor use assumptions were also made to estimate outdoor consumptive use. An average crop irrigation requirement of 18 inches per year was estimated for pasture/turf grass from nearby stations as provided in the Washington

Irrigation Guide (NRCS-USDA 1997). Irrigation application efficiency (i.e., the percent of water used that actually reaches the turf) was assumed to be 75 percent, consistent with Ecology (2018, 2019) recommendations. Finally, the consumptive portion of total amount of water used for outdoor use was assumed to be 80 percent. The WRIA 14 Committee chose not to modify the irrigation efficiency or indoor and outdoor consumptive factors used in the Irrigation Area method.

This method is summarized in the following equation:

$$HCOWU\ (afy) = A\ (acres) * IR(feet) * AE * CUF$$

Where:

HCOWU = Household Consumptive Outdoor Water Use (gpd)

afy = acre-feet per year

A = Irrigated Area (acres)

IR = Irrigation Requirement over one irrigation season (feet)

AE = Application Efficiency; assumed to be 75 percent (factor expressed as 1/0.75)

CUF = Consumptive Use Factor; assumed to be 80 percent (factor expressed as 0.80)

This estimate of outdoor consumptive water use per household per day can be annualized and converted to gallons per day or cubic feet per second.

Conversion Factors:

gpd = afy * 0.001120

cfs = afy * 723.97

This estimate of outdoor consumptive use per household per day is 143 gpd (assuming average irrigated area of 0.10 acre) and 200 gpd (assuming average irrigated area of 0.14 acre) and can be annualized and converted to acre-feet per year of cubic feet per second.

Seasonal consumptive use was estimated on a monthly basis by allocating total outdoor consumptive use proportional to the monthly irrigation requirement. The monthly irrigation requirement was defined by the Washington Irrigation Guidance.

Water System Data Method

Consumptive use by permit-exempt connections may also be estimated using metered connections from water systems. Water systems required to plan per Washington Administrative Code 246–290 must install meters on all customer connections. Smaller water systems that do not have state planning requirements may choose to meter their customer connections if the system billing is based on a tiered rate structure (i.e., increasing costs per unit of water consumed coincident with higher total use in the billing period).

Some systems bill customers a flat rate (i.e., same bill every month regardless of consumption). The lack of a tiered rate structure reduces the financial incentive to conserve water, which may result in consumption patterns more similar to those observed on a permit-exempt connection. These systems may or may not choose to meter their customers if meters are not required by law.

No water use meter data were available for systems that uses a flat rate structure. The Cherry Park, Union, and Harstene Island water systems operate under a tiered rate structure in WRIA 14 and were utilized for this analysis.

In most instances pumping impacts associated with new permit-exempt domestic withdrawals will be quite small, well dispersed, and nearly steady-state with respect to streams, as stated in Ecology's final NEB Guidance Appendix B (Ecology, 2019).

Indoor Use

Average daily use in December, January, and February is representative of year-round daily indoor use. Average daily system-wide use is divided by the number of permit-exempt connections (assuming all connections are residential) to determine average daily indoor use per permit-exempt connection. Similar to that used in the Ecology Irrigated Area method, a 10 percent consumptive use factor was applied to the average daily use in the winter months to determine the consumptive portion of indoor water use per connection.

Annual Outdoor Water Use

Average daily indoor use was multiplied by the number of days in a year to estimate total annual indoor use. Total annual indoor use was then subtracted from total annual use by a water system to estimate total annual outdoor use. Similar to the calculation used in the Ecology Irrigated Area Method, an 80 percent consumptive factor was applied to determine the consumptive portion of outdoor use.

Seasonal Outdoor Water Use

Outdoor consumptive use was also estimated on a seasonal basis. The Washington Irrigation Guide reports irrigation requirements between the months of April and September for representative weather stations in WRIA 14; therefore, seasonal outdoor water use was assumed to occur over a period of 6 months (April through September). Average daily indoor use was multiplied by the number of days in the irrigation season to calculate total indoor use for the irrigation season. Total irrigation season indoor use was then subtracted from total season use to determine total outdoor use for the irrigation season. The value was proportionally allocated to each month in the irrigation season using the requirements from the Washington Irrigation Guide. An 80 percent consumptive factor was applied to determine the consumptive portion of outdoor use.

Results

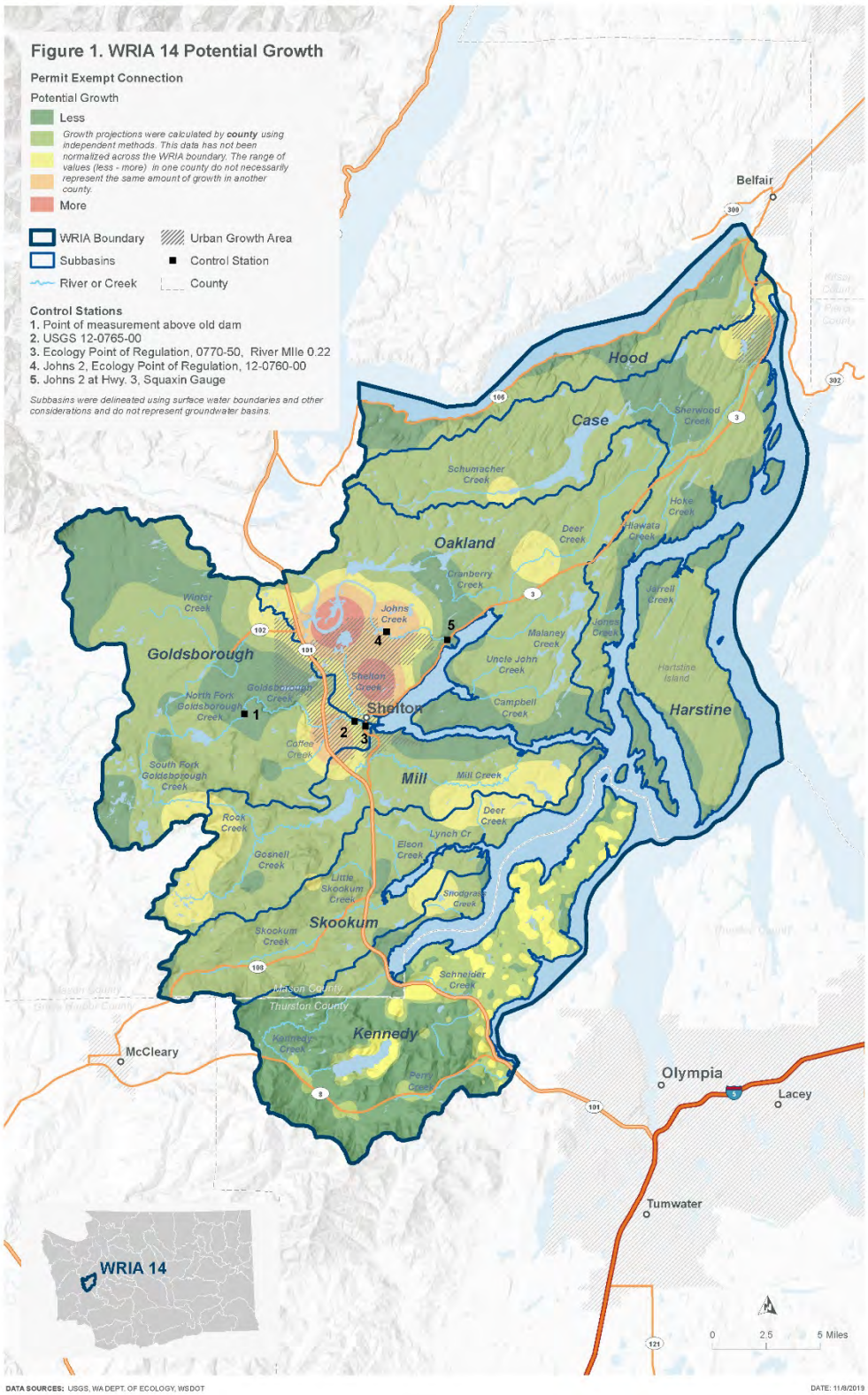
Permit-Exempt Connection Growth

Initial permit-exempt connection growth is projected to be 4,006 connections (Table 1). The alternative revised permit-exempt connection growth scenario is projected to have 288 additional connections, for a total of 4,294 permit-exempt connections. The WRIA 14 Committee has not selected one projection over the other for consumptive use estimation. Permit-exempt connection growth is expected to be greatest in the Oakland Bay subbasin.

Table 1: WRIA 14 Alternative Growth Projection Scenarios

Number of Permit-Exempt Wells Added between 2018 and 2038		
Subbasin	**Initial**	**Revised**
Case	418	512
Goldsborough	509	546
Harstine	143	143
Hood	74	117
Kennedy	556	588
Mill	462	466
Oakland	1,481	1559
Skookum	363	363
Totals	**4,006**	**4,294**

Figure 1. WRIA 14 Projected Permit-Exempt Connection Growth



Consumptive Use

The WRIA-wide consumptive use estimates used the Irrigated Area method range from 0.98 cfs (initial, average irrigated area of 0.10 acre) to 1.05 cfs (revised growth, average irrigated area of 0.10 acre) (Table 2 and Table 3). When an average irrigated area of 0.14 acre (95 percent Upper Confidence Limit [UCL] average irrigated area) was assumed, the consumptive use estimates ranged from 1.33 cfs (initial) to 1.43 cfs (revised growth).

The water system data analysis in WRIA 14 was conducted using averages of three systems managed by the Mason Public Utility District: Cherry Park, Union, and Harstene Retreat. The WRIA-wide consumptive use estimate calculated using the Water System Data method ranged from 0.48 cfs (initial) to 0.51 cfs (revised growth) (Table 2 and Table 3).

The WRIA 14 Committee selected the Irrigated Area method, using an average irrigated area of 0.10 acre as the "working" consumptive use estimate. The consumptive use estimates using a 95 percent UCL of the average irrigated area (0.14 acre) and the water system data method are for comparative purposes only.

Estimates of consumptive use using the Irrigated Area method are approximately two times greater than the Water System Data estimates.

Seasonal Use

Monthly outdoor water use was calculated as part of the consumptive use analysis for the Irrigated Area method. Seasonal water use by month is reported by subbasin and scenario (Table 4 and Table 5). The month of July has the highest irrigation requirement, resulting in the highest monthly consumptive use impact. This information may be used during evaluation of projects designed to offset subbasin- and season-specific impacts.

Sources

Ecology. 2018. *Recommendations for Water Use Estimates*. Washington State Department of Ecology, Publication 18-11-007.

Ecology. 2019. Final Guidance for Determining Net Ecological Benefit. Washington State Department of Ecology, Publication 19-11-079.

Natural Resource Conservation Service. 1997. Washington Irrigation Guide (WAIG). U.S. Department of Agriculture.

Table 2: Annualized Average Consumptive Use Estimates for WRIA 14 (2020–2040) – Initial Growth

Subbasin	Projected No. Permit-Exempt Wells	Annual Consumptive Use: Water System Estimate			Annual Consumptive Use: Irrigated Area Estimate (0.10 acre average irrigated area)			Annual Consumptive Use: Irrigated Area Estimate (0.14 acre average irrigated area)		
		AFY	GPM	AFY	AFY	GPM	CFS	AFY	GPM	CFS
Case	418	36.2	22.4	0.05	73.9	45.8	0.10	100.7	62.4	0.14
Goldsborough	509	44.0	27.3	0.06	90.0	55.8	0.12	122.6	76.0	0.17
Harstine	143	12.4	7.7	0.02	25.3	15.7	0.03	34.4	21.3	0.05
Hood	74	6.4	4.0	0.01	13.1	8.1	0.02	17.8	11.0	0.02
Kennedy	556	48.1	29.8	0.07	98.3	60.9	0.14	133.9	83.0	0.19
Mill	462	40.0	24.8	0.06	81.7	50.6	0.11	111.3	69.0	0.15
Oakland	1,481	128.2	79.4	0.18	261.8	162.3	0.36	356.6	221.1	0.49
Skookum	363	31.4	19.5	0.04	64.2	39.8	0.09	87.4	54.2	0.12
Totals	**4,006**	**346.7**	**214.9**	**0.48**	708.3	439.1	0.98	964.7	598.0	1.33

Table 3: Annualized Average Consumptive Use Estimates for WRIA 14 (2020–2040) – Revised Permit-exempt Connection Growth

Subbasin	Projected No. Permit-Exempt Wells	Annual Consumptive Use: Water System Estimate			Annual Consumptive Use: Irrigated Area Estimate (0.10 acre average irrigated area)			Annual Consumptive Use: Irrigated Area Estimate (0.14 acre average irrigated area)		
		AFY	GPM	CFS	AFY	GPM	CFS	AFY	GPM	CFS
Case	512	44.3	27.5	0.06	90.5	56.1	0.13	123.3	76.4	0.17
Goldsborough	546	47.2	29.3	0.07	96.5	59.8	0.13	131.5	81.5	0.18
Harstine	143	12.4	7.7	0.02	25.3	15.7	0.04	34.5	21.4	0.05
Hood	117	10.1	6.3	0.01	20.7	12.8	0.03	28.2	17.5	0.04
Kennedy	588	50.9	31.5	0.07	103.9	64.4	0.14	141.5	87.7	0.20
Mill	466	40.3	25.0	0.06	82.4	51.1	0.11	112.2	69.6	0.16
Oakland	1559	134.9	83.6	0.19	275.6	170.9	0.38	375.4	232.7	0.52
Skookum	363	31.4	19.5	0.04	64.2	39.8	0.09	87.4	54.2	0.12
Totals	**4,294**	**371.6**	**230.4**	**0.51**	759.2	470.6	1.05	1,034.0	641.0	1.43

Table 4: WRIA 14 Monthly Consumptive Water Use (Irrigated Area method; assumed irrigated area of 0.10 acres)

Subbasin	Projected No. Permit-exempt Connections	Consumptive Use by Month (cfs)											
		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Initial													
Case	418	0.00	0.00	0.00	0.02	0.18	0.24	0.33	0.25	0.10	0.00	0.00	0.00
Goldsborough	509	0.00	0.00	0.00	0.03	0.21	0.29	0.40	0.31	0.12	0.00	0.00	0.00
Harstine	143	0.00	0.00	0.00	0.01	0.06	0.08	0.11	0.09	0.03	0.00	0.00	0.00
Hood	74	0.00	0.00	0.00	0.00	0.03	0.04	0.06	0.04	0.02	0.00	0.00	0.00
Kennedy	556	0.01	0.01	0.01	0.03	0.23	0.32	0.44	0.34	0.14	0.01	0.01	0.01
Mill	462	0.00	0.00	0.00	0.03	0.19	0.27	0.36	0.28	0.11	0.00	0.00	0.00
Oakland	1,481	0.01	0.01	0.01	0.08	0.62	0.85	1.17	0.90	0.36	0.01	0.01	0.01
Skookum	363	0.00	0.00	0.00	0.02	0.15	0.21	0.29	0.22	0.09	0.00	0.00	0.00
Totals	**4,006**	0.04	0.04	0.04	0.22	1.69	2.31	3.15	2.43	0.97	0.04	0.04	0.04
Higher Permit-Exempt Connection Growth													
Case	512	0.00	0.00	0.00	0.03	0.22	0.29	0.40	0.31	0.12	0.00	0.00	0.00
Goldsborough	546	0.01	0.01	0.01	0.03	0.23	0.31	0.43	0.33	0.13	0.01	0.01	0.01
Harstine	143	0.00	0.00	0.00	0.01	0.06	0.08	0.11	0.09	0.03	0.00	0.00	0.00
Hood	117	0.00	0.00	0.00	0.01	0.05	0.07	0.09	0.07	0.03	0.00	0.00	0.00
Kennedy	588	0.01	0.01	0.01	0.03	0.25	0.34	0.46	0.36	0.14	0.01	0.01	0.01
Mill	466	0.00	0.00	0.00	0.03	0.20	0.27	0.37	0.28	0.11	0.00	0.00	0.00
Oakland	1,559	0.01	0.01	0.01	0.09	0.66	0.90	1.23	0.95	0.38	0.01	0.01	0.01
Skookum	363	0.00	0.00	0.00	0.02	0.15	0.21	0.29	0.22	0.09	0.00	0.00	0.00
Totals	**4,294**	0.04	0.04	0.04	0.24	1.81	2.47	3.38	2.61	1.04	0.04	0.04	0.04

Note: WRIA 14 did not consider a low-growth scenario.

Table 5: WRIA 14 Monthly Consumptive Water Use (Irrigated Area method; assumed irrigated area of 0.14 acres)

Subbasin	Projected No. Permit-exempt Connections	Consumptive Use by Month (cfs)											
		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Initial													
Case	418	0.00	0.00	0.00	0.03	0.25	0.34	0.46	0.35	0.14	0.00	0.00	0.00
Goldsborough	509	0.00	0.00	0.00	0.04	0.30	0.41	0.56	0.43	0.17	0.00	0.00	0.00
Harstine	143	0.00	0.00	0.00	0.01	0.08	0.11	0.16	0.12	0.05	0.00	0.00	0.00

Hood	74	0.00	0.00	0.00	0.01	0.04	0.06	0.08	0.06	0.02	0.00	0.00	0.00
Kennedy	556	0.01	0.01	0.01	0.04	0.33	0.45	0.61	0.47	0.19	0.01	0.01	0.01
Mill	462	0.00	0.00	0.00	0.03	0.27	0.37	0.51	0.39	0.16	0.00	0.00	0.00
Oakland	1,481	0.01	0.01	0.01	0.11	0.87	1.19	1.63	1.25	0.50	0.01	0.01	0.01
Skookum	363	0.00	0.00	0.00	0.03	0.21	0.29	0.40	0.31	0.12	0.00	0.00	0.00
Totals	**4,006**	0.04	0.04	0.04	0.30	2.35	3.21	4.40	3.39	1.35	0.04	0.04	0.04
Higher Permit-Exempt Connection Growth													
Case	512	0.00	0.00	0.00	0.04	0.30	0.41	0.56	0.43	0.17	0.00	0.00	0.00
Goldsborough	546	0.01	0.01	0.01	0.04	0.32	0.44	0.60	0.46	0.18	0.01	0.01	0.01
Harstine	143	0.00	0.00	0.00	0.01	0.08	0.11	0.16	0.12	0.05	0.00	0.00	0.00
Hood	117	0.00	0.00	0.00	0.01	0.07	0.09	0.13	0.10	0.04	0.00	0.00	0.00
Kennedy	588	0.01	0.01	0.01	0.04	0.34	0.47	0.65	0.50	0.20	0.01	0.01	0.01
Mill	466	0.00	0.00	0.00	0.03	0.27	0.37	0.51	0.39	0.16	0.00	0.00	0.00
Oakland	1,559	0.01	0.01	0.01	0.12	0.91	1.25	1.71	1.32	0.53	0.01	0.01	0.01
Skookum	363	0.00	0.00	0.00	0.03	0.21	0.29	0.40	0.31	0.12	0.00	0.00	0.00
Totals	**4,294**	0.04	0.04	0.04	0.32	2.52	3.44	4.71	3.63	1.45	0.04	0.04	0.04

Note: WRIA 14 did not consider a low-growth scenario.

Attachment A

Estimation of Average Irrigated Area

Methods

1. 80 parcels representing an existing dwelling served by a permit-exempt well or connection was defined.
    a. A pool of parcels with an existing dwelling served by a permit-exempt well or connection was defined.
    b. The selection pool was classified by property value. The classes were (1) Under $350,000, (2) $350,000–$600,000, and (3) more than $600,000.
    c. 80 parcels were randomly drawn from the selection pool, weighted by the proportion of property value class membership.
    d. Additional parcels were randomly selected as alternates, in case any of the primary (80) samples were able to be interpreted to irrigated area.
    e. All parcels were provided in a GoogleEarth .kmz file.
2. The irrigated area in each parcel was delineated according to the following procedure:
    a. Used a single technician to minimize operator variability.
    b. Irrigated area delineations were made using GoogleEarth aerial imagery taken during drier summer months (i.e., July and August). Unirrigated lawns (pasture/turf) go dormant in the dry summer months and turn brown. As such, areas that remain green in the summer imagery were considered irrigated.
    c. Aerial imagery from winter months was reviewed alongside summer imagery to reveal which lawn areas change from green to brown. Those areas that do not change color, or moderately change color but remain green, were considered irrigated.
    d. If available, multiple years of aerial imagery were used to corroborate the irrigated area delineation.
    e. Landscaped shrub/flower bed areas within a larger irrigated footprint were included. Shrub and flower bed areas outside of the irrigated footprint were excluded.
    f. If the irrigated area extended beyond the parcel boundary, those areas were included.
    g. Parcels with no visible signs of irrigation were assumed to have zero irrigated acres.
    h. Areas that appeared to be native forest or unmaintained grass were not included in the irrigated footprint.

i. Parcels with homes or accessory dwelling units (ADUs) under construction in the most recent GoogleEarth imagery were excluded from the analysis, and an alternate parcel was evaluated.

- Figures B-1 through B-4 illustrate some example delineations.

•

Figure B-1. No irrigated areas visible in most recent GoogleEarth aerial imagery.

Figure B-2. Area in white includes maintained grass. Residence constructed between June 2017 and July 2018. Therefore, historical irrigation of property is unavailable in GoogleEarth imagery.

Figure B-3. Irrigated area includes landscaped area in driveway, maintained yard around residence, garden area, and maintained grass near garden area.

Figure B-4. No irrigated area. Assumption that green vegeation on southern portion of parcel is due to proximity to Spurgeon Creek since clear delineation of irrigated area is not present on aerial. Green area near residence appears to be tree and shrubs, not maintained landscaping and is excluded.

Results

Eighty parcels were evaluated for irrigated acreage (Figure B-5). The average irrigated acreage was 0.07 acre (Table B-1). In all WRIAs evaluated, most parcels had zero irrigated acres (Figure B-6). The distribution of irrigated acreages for all WRIAs were skewed because of the large percentage of parcels that had zero irrigated acres. Some parcels had an irrigated area nearly an order of magnitude larger than the mean, resulting in a large standard deviation. The 95 percent upper confidence limit of the mean could be fit only with a non-parametric distribution and was about twice the quantity of the calculated arithmetic mean. When a minimum irrigated acreage of 0.05 acre was imputed for the parcels with zero irrigated acres observed, the average acreage increased to 0.10 acre.

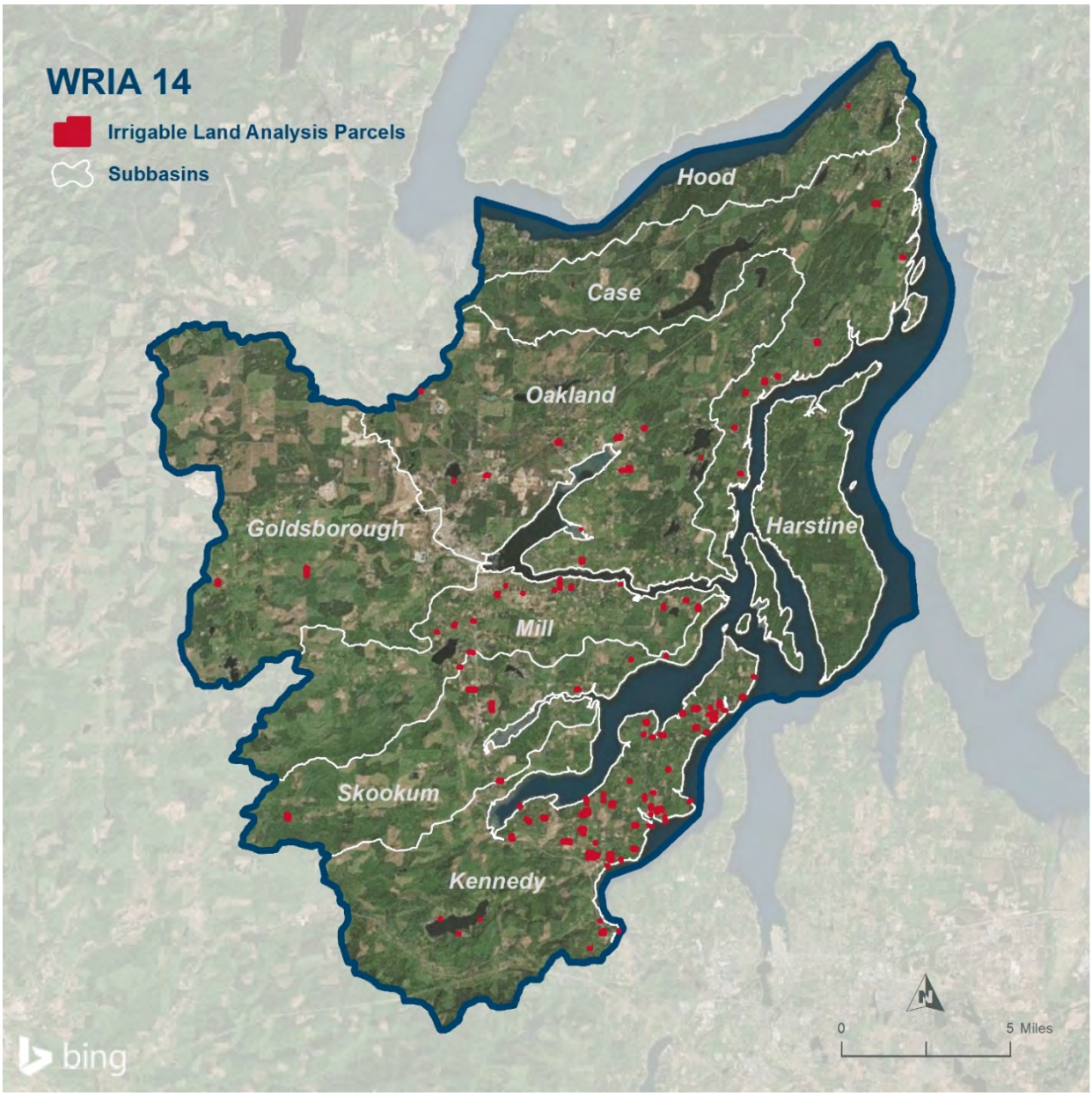


Figure B-5. Parcels selected in WRIA 14 with existing permit-exempt connections that were delineated for apparent irrigated areas.

Table B-1. Irrigated acreage delineation results

Statistic	WRIA 14
Permit-exempt Parcel Sample Pool	5,091
Sample Size	80
Mean (acres)	0.07
Mean, with 0.05-acre minimum (acres)	0.10

Standard Deviation (acres)	0.15
95% UCL (acres)	0.14

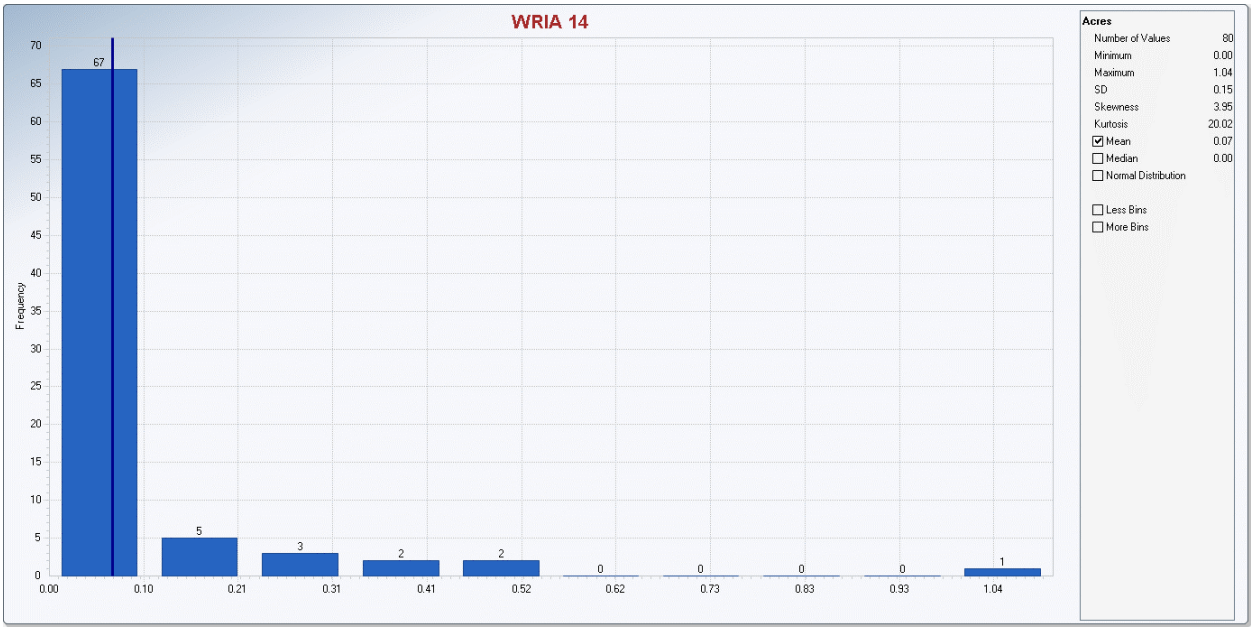


Figure B-6. Histogram of WRIA 14 irrigated acreage delineation results.

Because of the large proportion of parcels with zero acres observed, and the large variability in the results (i.e., large standard deviation), HDR proposed a range of alternatives to mitigate that uncertainty:

- To account for uncertainty of detecting small areas of irrigation, the Committee could impute the zero values with a "minimum detection" irrigated area of 0.05 acre, which would result in a 0.10-acre average irrigated area size.
- HDR completed an irrigated area comparability study for the irrigated area parcel analysis, and determined that an additional way to account for uncertainty in "human error" could be done using a "correction factor," which would result in a 0.11-acre average irrigated area size.
- HDR has completed a statistical analysis of their data, and has determined that using the 95 percent Upper Confidence Limit of the data (based on initial analysis with 0 values) could be an additional way to account for uncertainty, which would result in a 0.14-acre average irrigated area size.

The WRIA 14 Committee decided to move forward with a "primary working number" and a "working number for comparison." The primary working number is an average irrigated acreage

of 0.10 acre (average value with imputed minimum detection values of 0.05 acre). The working number for comparison is 0.14 acre, which is the non-parametric 95th Upper Confidence Limit of the mean. Consumptive use based on both acreages will be evaluated and compared to the consumptive use calculated from the Water System Data method.

Attachment B

Consumptive Use Corroboration Analysis

Thurston, Mason, and Kitsap PUDs provided water consumption data for several systems with a small number of connections. These systems were analyzed using both consumptive use estimation methods. All parcels in each system were analyzed for irrigated area, providing a direct comparison between the water estimated using the Irrigated Area method and the actual measured consumption by the water system. Table 1 contains the results of the corroboration analysis.

Table 1: Annual and Seasonal Consumptive Use Corroboration Analysis

WRIA – Water System	Annual Consumptive Use (gpd per household)			Seasonal Consumptive Use (gpd per household)					
				Summer			Winter		
	Water System Data	Irrigated Area Method	Percent Difference[1]	Water System Data	Irrigated Area Method	Percent Difference[1]	Water System Data	Irrigated Area Method	Percent Difference[1]
WRIA 12 – Whiskey Hollow	53.6	181.1	238	85.8	346.3	304	11.2	15.0	34
WRIA 13 – Rich Road	52.6	113.2	115	86.8	210.8	143	7.3	15.0	107
WRIA 14 – Canyonwood Beach	29.3	86.4	195	51.2	157.4	207	7.2	15.0	107
WRIA 15 – Echo Valley	76.7	75.5	-2	137.9	135.7	-2	15.2	15.0	-1

[1]Change in consumptive use from the Water System Data method to the Irrigated Area method.

The Irrigated Area method estimated consumptive use values at least double those estimated from the Water System Data method in WRIAs 12, 13, and 14. This is true for both indoor and outdoor use. The exception is winter consumptive use in the Whiskey Hollow system, which suggests that customers purchasing water from Whiskey Hollow use indoor water at a rate similar to that assumed in the Irrigated Area method (i.e., 60 gpd per person). The Echo Valley system in WRIA 15 has a slight decrease in estimated consumptive use in the Irrigated Area method compared to the Water System Data method. Customers in this system may heavily irrigate their lawns, or the estimate of total irrigated area in the system may be biased low. No small water system data were provided in WRIA 10.

Appendix I – Detailed Project Descriptions

I. City of Shelton Reclaimed Water

II. Evergreen Mobile Home Estates

III. General Floodplain Restoration

IV. Goldsborough Hilburn Restoration Project

V. Managed Aquifer Recharge Projects in WRIA 14

VI. Mason County Rooftop Runoff

VII. North Steamboat

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IX. Skookum Valley Agricultural Project

X. Water Right Screening Methodology

XI. Steamboat Middle Storage Enhancement and Habitat Improvements

XII. Schneider Creek Source Substitution

XIII. Summit Lake Alternative Water Supply and Use

City of Shelton Reclaimed water

PROJECT DESCRIPTION

Description

The City of Shelton (City) proposes to increase the quantity and rate of reclaimed water infiltration into the North Fork Goldsborough subbasin by increasing production of Class A reclaimed water (RW) and infiltrating to groundwater at the City RW spray field, near the Washington Corrections Center (WCC). This project will re-direct an annual average of 0.5 mgd of the City's wastewater in North Shelton from the WWTP to the Water Reclamation Plant (WRP). The additional flow will be treated to produce 0.5 mgd of RW for subsequent conveyance to the existing City spray field. The following infrastructure improvements must occur to facilitate this project:

- Conveyance of North Shelton wastewater to the WRP.
- A storage tank (0.750 mg) to store RW at the WRP.

The conveyance of North Shelton wastewater to the WRP is currently in its design phase is likely to include a sewage lift station, and 18 inch sewer main and would run from West Birch Street to reclaimed water satellite plant (approximately 9,000 linear feet). The RW storage tank serves to buffer variable production and use of RW. Reclaimed water produced from City wastewater may be used for City uses, including a backup for firefighting, and it allows strategic timing of application of reclaimed water to the ground to benefit aquifers and streams and wetlands. Streamflow restoration funds are currently supporting design options for the lift station, sewer main, storage tank, and cost estimates. The additional reclaimed water will be conveyed to the City's existing spray field near the WCC with and infiltrated to local groundwater.

The second component of this project is RW use at the WCC. The WCC proposes to use reclaimed water to irrigate their outdoor lawn, instead of water that they currently pump from their local well. Pumping from their local well has been shown to impact instream flows in the North Fork Goldsborough Creek.

Quantitative or qualitative assessment of how the project will function, including anticipated offset benefits, if applicable. Show how offset volume(s) were estimated.

Wastewater in the Shelton area is currently treated by the City at the Fairmont wastewater treatment plant (WWTP) and the Water Reclamation Plant (WRP). Approximately 1.3 million gallons per day (1,490 acre-feet/year) of treated effluent from the WWTP is discharged directly to Oakland Bay. Approximately 0.213 million gallons per day (239 acre-feet/year) of RW is currently produced at the WRP and is conveyed to a wooded area near the WCC and overland sprayed. This overland spraying area is adjacent to the North Fork Goldsborough Creek, and it is likely that water infiltrating to the local aquifer is in connection with North Fork Goldsborough Creek flows.

The water offset benefit from the North Shelton wastewater re-direct to the WRP, would be the result of infiltrating the reclaimed water produced from that waste stream. The North Shelton wastewater is currently treated at the WWTP and discharged to Oakland Bay. All 560 acre-feet/ year of reclaimed water produced from the North Shelton waste stream would be infiltrated into the proposed infiltration facility. Assuming an infiltration efficiency of 80%, this would result in between 448 afy infiltrated to the local aquifer (Table 1).

The use of RW for irrigation by the WCC will result in a water offset, because of reduced consumptive use of their locally pumped water. The WCC is currently pumping 67 acre-feet/yr of local groundwater for irrigation. Eighty percent of the water used for irrigation will be lost to evapotranspiration (Table 2). However, if RW was used for outdoor irrigation, it's assumed that as the WCC population grows, the same quantity of water will be used for indoor use. However, very little of that water will be consumptively used, because the wastewater will be conveyed to the WRP, treated to Class A RW, pumped to the City spray field and land applied at rates that result in 80% infiltration efficiency. The resulting quantity of locally pumped water that would be infiltrated because of the change to indoor use would be 38 acre-feet/yr (Table 2). The immediate benefit would be larger, because the growth of indoor use would be gradual, and immediately after the switch to RW for irrigation, the WCC would pump 67 acre-feet/yr less from their local well. Future WCC expansion include new buildings (i.e. health care building and Program building) where grey water piping will be incorporated. These and other potential expansions may increase RW use to approximately 134 acre-feet/year. If outdoor water use (i.e. irrigation) used the entire 134 acre-feet/year in the future, then that would result in a net savings of 75 acre-feet/yr (Table 3).

Table 1. Estimated quantity of infiltrated reclaimed water from North Shelton, Basin 7.

New North Shelton Reclaimed Water	Water Quantity (af/yr)
RW Quantity	560
RW Infiltration (80%)	448

Table 2. WCC consumptive use savings from using RW for immediate irrigation needs.

Outdoor Use	**Water Quantity (af/yr)**
Irrigation Quantity	67
Irrigation CU	53.6
Indoor Use	
Future Indoor Use	60
Future Indoor CU	6
CU Savings	
CU Savings	47.6
RW Infiltration (80% Efficiency)	38

Table 3. WCC consumptive use savings from using RW for future potential irrigation needs.

Outdoor Use	**Water Quantity (af/yr)**
Irrigation Quantity	134
Irrigation CU	107
Indoor Use	
Future Indoor Use	134
Future Indoor CU	13
CU Savings	
CU Savings	94
RW Infiltration (80% Efficiency)	75

Conceptual-level map and drawings of the project and location.

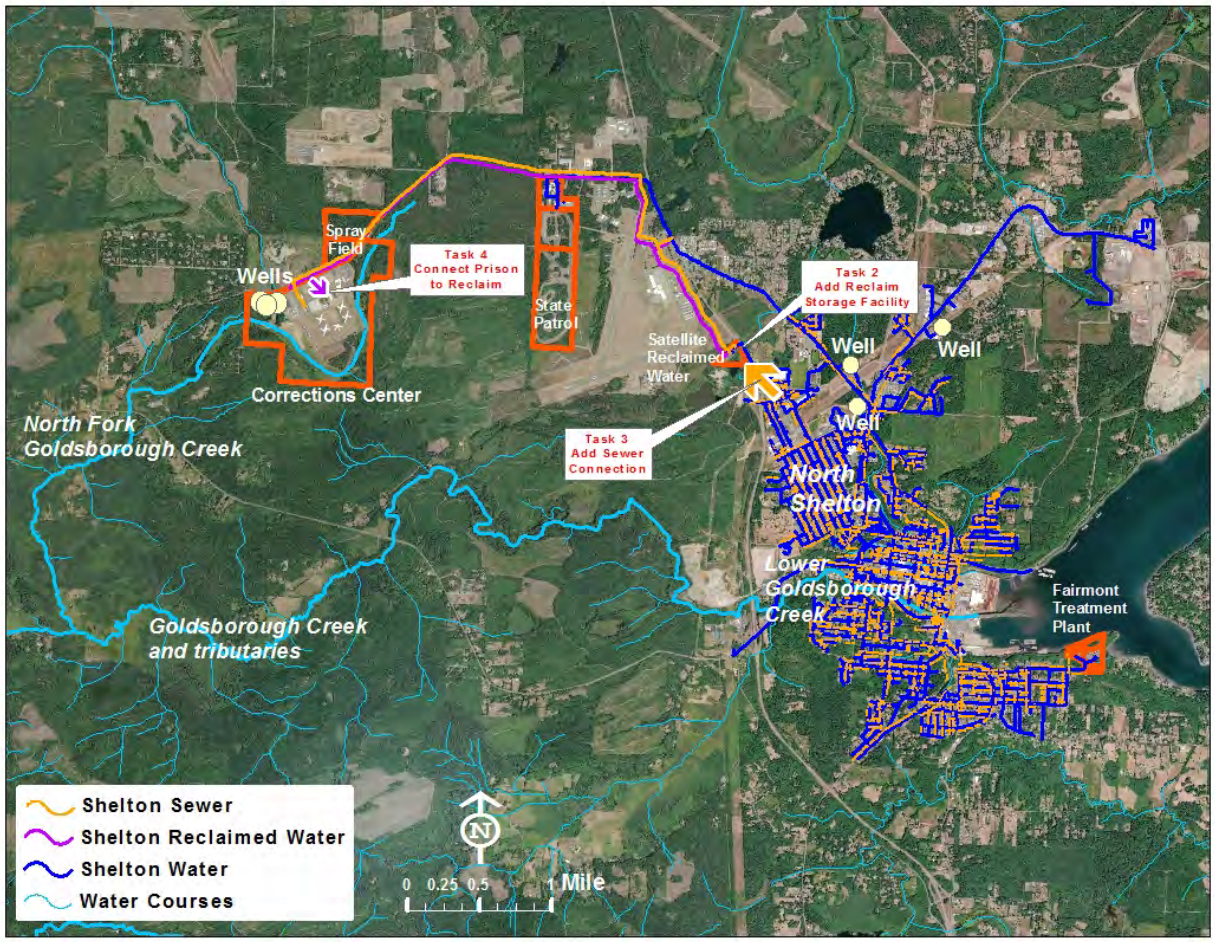

Figure 1. City of Shelton wastewaster collection network, wastewater treatment plants, and reclaimed water use at the WCC.

Description of the anticipated spatial distribution of likely benefits

RW infiltration will likely benefit stream flows in the North Fork Goldsborough Creek. The spray field is underlain by Vashon Recessional Outwash, as indicated by monitoring wells associated with reclaimed water permit ST6216 fact sheet. The spray field is up-gradient from the North Fork Goldsborough Creek to the west and south. On-site observations indicated significant swelling of the North Fork of Goldsborough Creek during rainfalls, suggesting that much of the water infiltrating in the immediate area discharges to the North Fork of Goldsborough Creek (Permit ST6216 fact sheet).

Performance goals and measures.

The following performance goals and measures will determine the success of this project:

- Annual average wastewater flow from the North Shelton neighborhood is 0.5 mgd (560 acre-feet/yr)

- Annual average RW production and conveyance to the infiltration facility is equal to the North Shelton and WCC input sources. Alternative uses of the reclaimed water originating from the WCC wastewater may be deducted from the total (i.e. separate accounting).

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

Goldsborough Creek is designated habitat for ESA-listed winter steelhead. It is also home to populations of chum and coho salmon and anadromous cutthroat trout (WDFW 2020). This project will benefit North Fork Goldsborough Creek and Goldsborough Creek. Increased flow will increase usable aquatic habitat, and would have the greatest benefit during summer low flows.

Identification of anticipated support and barriers to completion.

This project is supported by the City, the WCC, and the Squaxin Island Tribe. No barriers to completion are currently foreseen.

Potential budget and O&M costs.

The City and the Squaxin Island Tribe are currently undergoing a feasibility study that includes capital and O&M costs. The current cost estimate is $1,673,000, based on similar work from an existing project grant from the Squaxin Island Tribe.

Anticipated durability and resiliency.

This project is expected to be durable, because the upgrades and RW quantities will be reflected by NPDES wastewater permit requirements that are designed to avoid and minimize treatment failure. Treatment upsets are generally avoided with design redundancy and safeguards, as defined in the reclaimed water permit ST6216.

Project sponsor(s) (if identified) and readiness to proceed/implement.

The project sponsor is the City of Shelton with the Squaxin Island Tribe as supporter. The WCC is a project stakeholder. All parties are currently proceeding with a feasibility study and are ready to implement the project, according to the results of the feasibility study.

References

Ecology (Washington State Department of Ecology). 2009. Fact Sheet for Reclaimed Water Permit Number ST 6216.

Ecology (Washington State Department of Ecology). 2016. Reclaimed Water Permit Number ST 6216.

WDFW (Washington Department of Fish and Wildlife), 2020. Salmonscape mapping of fish distribution. Available at: http://apps.wdfw.wa.gov/salmonscape/

Evergreen Mobile Home Estates Water Rights Acquisition

PROJECT DESCRIPTION

Description

Evergreen Mobile Home Estates (Evergreen Estates) Group A water system (PWSID# 24154) has been issued a compliance order to install CT6 disinfection (i.e. chlorination) to address failing on-site wastewater systems in close proximity to its wells. As an alternative to CT6 treatment, Evergreen Estates is considering connection to the City of Shelton's (City's) water system and abandoning its existing wells. The City has been pursuing consolidating the Evergreen Estates with the City drinking water system, and conducted a feasibility study to identify necessary infrastructure improvements to connect Evergreen Mobile Estates to its water system.

The Evergreen Estates installed five new sewer septic systems and a chlorination system at the wells. The property owner has indicated that the State has accepted their plan for onsite septic and chlorination improvements and that no further action on their part is needed (Carollo 2020). However, the Evergreen Estates owner did indicate that they would be amenable to water system consolidation if their costs were covered by others or with grant funding (HDR 2020).

The water system consolidation would result in the water rights of the Evergreen Mobile Estates Group A system to be unused. A water offset benefit would occur if that water right were to be put into permanent trust, per RCW 90.42.

Quantitative or qualitative assessment of how the project will function, including anticipated offset benefits, if applicable. Show how offset volume(s) were estimated.

The City of Shelton recently completed a consolidation feasibility study for the Evergreen Estates (Carollo 2020). The study identified the infrastructure that would need to be built by the City and by Evergreen Estates, respectively. The City would provide water service to the Evergreen Estates by providing an 8-inch water main for domestic supply and fire flows. Evergreen Estates would need to install a pressure reducing valve, a backflow prevention device, and potentially private fire hydrants.

The Evergreen Estates' available Water Use Efficiency reports indicated annual water production at the total authorized annual consumption of 26.9 acre-feet per year. However, the feasibility study estimated their likely annual water use to be 7.2 acre-feet per year. Therefore, if the City provided water to the Evergreen Estates, and the existing water right were to be put into permanent trust, the water offset value would be 7.2 acre-feet per year.

Conceptual-level map and drawings of the project and location.

The Evergreen Estates and water offset benefits would occur in the North Shelton area, in the Oakland subbasin (Figure 1).

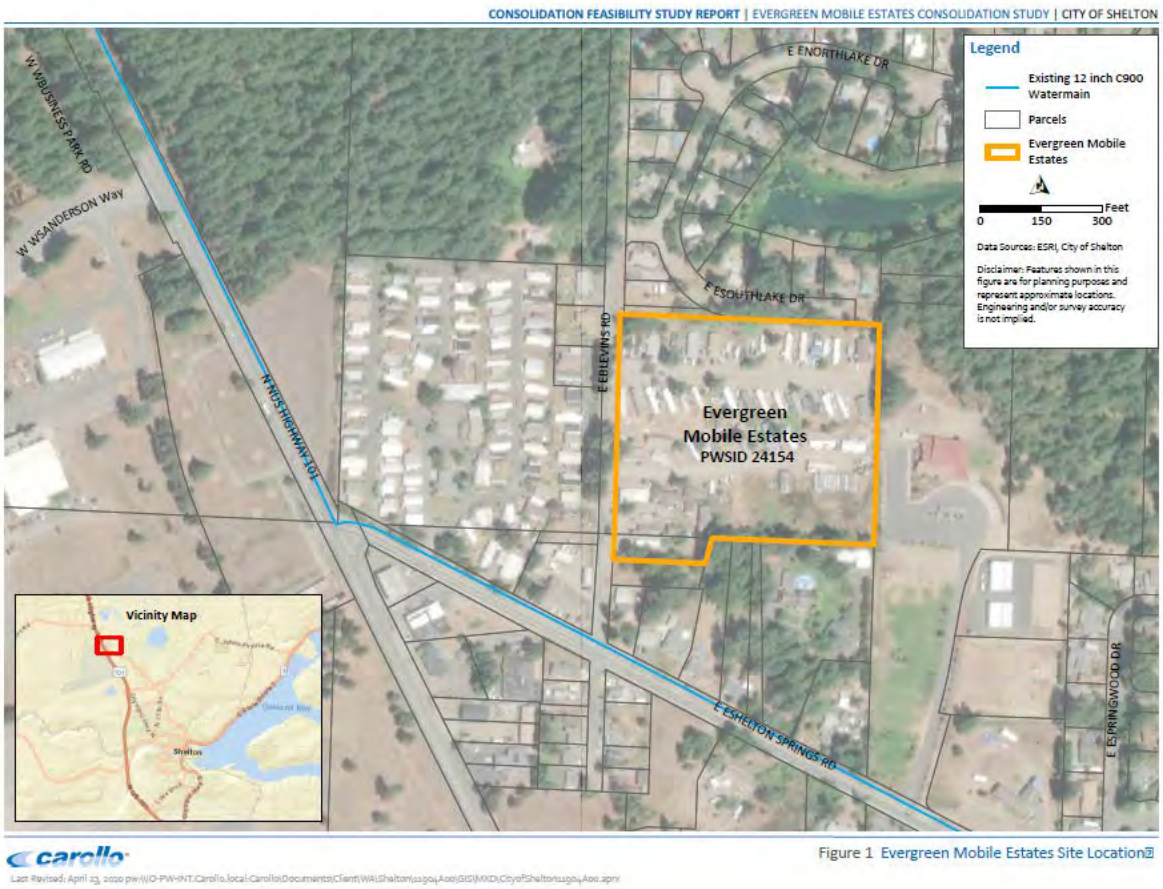

Figure 1. Evergreen Estates Site Location (from Carollo 2020).

Description of the anticipated spatial distribution of likely benefits

Elimination of pumping and consumptive use at the Evergreen Estates may benefit flow in John's Creek, in the Oakland subbasin. John's Creek is less than half a mile away from Evergreen Estates.

Performance goals and measures.

The performance goals would include completion of the legal mechanism of putting the Evergreen Estates water right into permanent trust, and permanent well closure.

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

John's Creek supports coho, summer chum, fall chum, and winter steelhead (WDFW 2020). Increased summer low flows would support juvenile coho and winter steelhead juveniles. Chum species would

benefit from continued groundwater connectivity during spawning and early rearing during the winter and early spring.

Identification of anticipated support and barriers to completion.

The primary barrier to this project is funding. Evergreen Estates has already invested in new septic systems and chlorination at their well. Consolidation may need to be fully funded by a grant(s).

Potential budget and O&M costs.

Costs are estimated at $474,000. Specific improvements and costs are currently being developed in a feasibility study that is being funded through a grant between the Department of Health (DOH) and the City (DOH Contract Number GVL24700).

Anticipated durability and resiliency.

The water rights acquisition would be a durable benefit, because it would be put into permanent trust. Although the City would need to pump more groundwater to provide water to the evergreen Estates, the City would still have the same maximum allowable use and number of connections, since they would not obtain the Evergreen Estates water right as part of their consolidation.

Project sponsor(s) (if identified) and readiness to proceed/implement.

The City is ready to proceed, if and when Evergreen Estates is ready. Evergreen Estates readiness is currently unclear and subject to future agreement.

References

Carollo. 2020. City of Shelton, Evergreen Mobile Estates Consolidation Study. Consolidation Feasibility Study Report. Final. September 2020.

WDFW (Washington Department of Fish and Wildlife), 2020. Salmonscape mapping of fish distribution. Available at: http://apps.wdfw.wa.gov/salmonscape/

General Floodplain Restoration

PROJECT DESCRIPTION

Narrative description, including goals and objectives.

The Kennedy-Goldsborough Watershed (WRIA 14) is within Mason and Thurston counties and includes an extensive network of independent streams that issue from springs, wetlands, small lakes, and surface water drainages. The Kennedy-Goldsborough Watershed has no major river system. These multiple small streams originate from the Black Hills and lower foothills of the Olympic Mountains, emptying into several shallow bays and inlets in South Puget Sound, including Eld, Totten, Skookum, Hammersley, and Case inlets. Principal drainages include (from north to south) Sherwood, Campbell, Deer, Cranberry, Johns, Goldsborough, Mill, Skookum, Schneider, Kennedy, and Perry creeks. The geomorphology of WRIA 14 is strongly influenced by glacial deposits of coarse materials that promote connectivity between surface and groundwaters and the headwaters of many of the stream systems are (or were) dominated by wetlands.

Limiting factors for salmon species in WRIA 14 have been identified by Kuttel (2002) and Mason CD (2004), and are briefly summarized below:

- Fish barriers such as dams, culverts, and grade control structures have inhibited fish passage in WRIA 14.
- Removal of native riparian vegetation and channel modifications have led to deteriorated streambank conditions and reduced quantity and quality of instream habitat.
- Reduced levels of large wood, particularly key pieces that promote the long-term formation of instream and off-channel habitats.
- Groundwater and surface water withdrawals, loss of forest canopy and impervious surfaces have increases in water temperature, reduced dissolved oxygen levels, and very low flows during summer and early fall.

WRIA 14 floodplain restoration projects would address loss of groundwater storage, low flows and water quality conditions. The specific actions proposed for any given project would be specific to the restoration opportunity and habitat capacity of that location. The goal of any given project would be to rehabilitate natural hydrologic and geomorphic processes that are provided by floodplain connectivity. More detailed objectives pursuant to this goal would be specific to each respective project.

Qualitative assessment of how the project will function.

Projects will vary depending on the stream setting, habitat capacity, the impact that has occurred, and the corresponding opportunities for restoration. Potential floodplain restoration actions include the following:

- Channel re-alignment (i.e. re-meander),
- Removing bank protection,
- Installation of large wood to promote hyporheic and floodplain water storage
- Removal of fill or creation of inset floodplain (i.e. excavation of terraces),
- Side channel and off-channel feature reconnections, creation or enhancement.

Conceptual-level map of the project and location.

A mapping utility was used to solicit WRIA 14 floodplain project recommendations from the WRIA 14 Committee. The following data and reasoning was used to select candidate sites in WRIA 14:

- Identify reaches that are unconfined with Lidar hillshade. Unconfined reaches have wider valleys and floodplains.
- Identify reaches in flood zones
- Identify land that is vacant, and therefore potentially available for acquisition and restoration.
- Identify land that is public and potentially easier to acquire for restoration.
- Identify areas of tributary inflow, because they are often areas of biological importance and habitat complexity. They may also be areas more prone to intermittent flooding.

Project locations identified by the Committee are shown in Figure 1 include the following:

- Schumacher – Beaver
- Deer Creek - Beaver
- Johns Creek – Beaver
- Campbell Creek, Upper
- Jarrell Creek
- Mill Creek above BNSF tracks

- Gosnell
- Skookum at Duck Pond
- Skookum, Eich Road
- Skookum, Upper
- Kennedy Creek flats
- Upper Schneider
- Perry Creek

All project locations would be subject to evaluation of feasibility during plan implementation. Other locations may be identified by Committee members or other project sponsors during plan implementation.

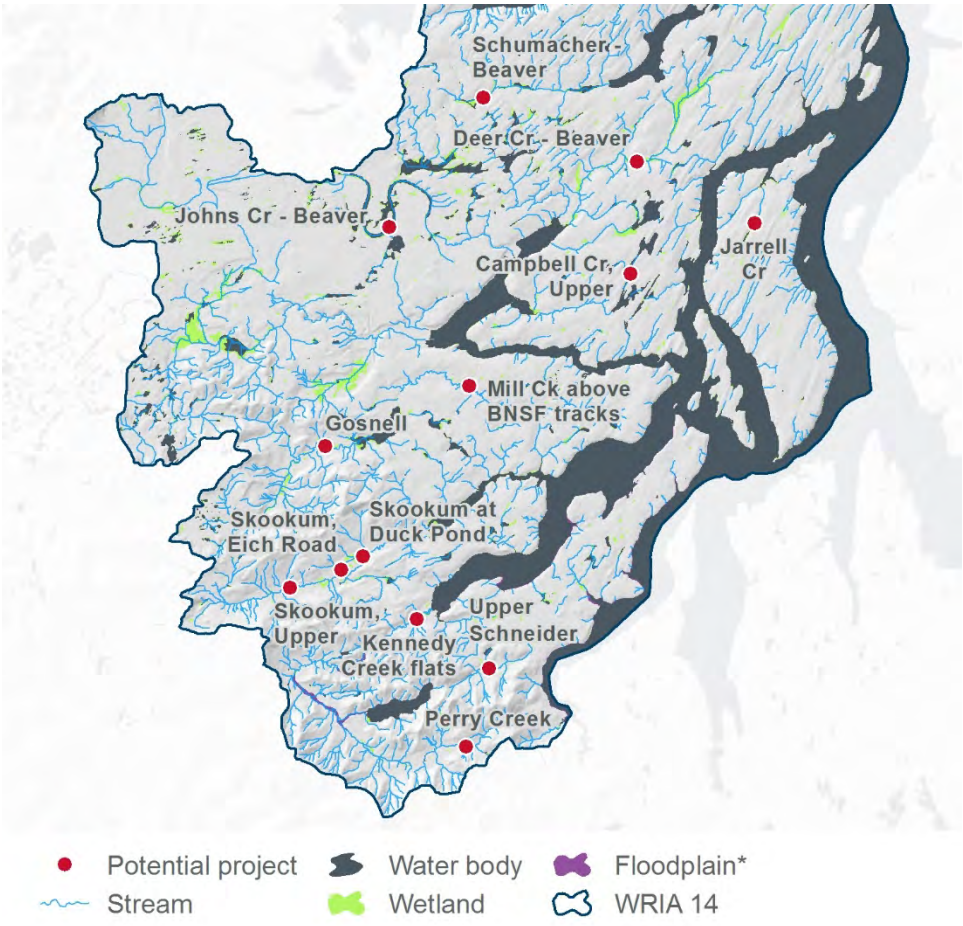

Figure 1. Potential floodplain restoration project locations.
**Floodplain data only available for southern areas in WRIA 14.*

Performance goals and measures.

Performance goals and measures will vary depending on the project. In general, the goals will be to implement the restoration actions with their intended quantity and purpose. The measures will be directly measurable elements such as acres of floodplain, wetland, or riparian habitats restored, stream-miles enhanced, predicted quantity of baseflow volume restored, predicted reduction of temperature, etc.

Description of the anticipated spatial distribution of likely benefits.

Potential floodplain restoration projects have been identified in suitable floodplain areas of Schumacher, Deer, Johns, Campbell, Jarrell, Mill, Gosnell, Skookum, Kennedy, Schneider, and Perry creeks. Restoring floodplain connectivity, along with riparian and wetland habitats could benefit between 2 and 6 miles of these tributaries by storing direct precipitation and floodwaters in these floodplain areas, contributing additional flows during low flow periods.

These streams have been noted for low summer/fall flows for decades (WDF 1975) and improvements to flows and temperatures, as well as floodplain and instream habitats, could provide substantially improved summer rearing habitat for juvenile coho salmon, steelhead and cutthroat trout. Improved flow conditions would also benefit upstream migration of adult Chinook, chum, and coho salmon.

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

The Washington Department of Fish and Wildlife (WDFW 2020a) has identified that coho, and fall chum salmon, and winter steelhead trout are present in all the identified primary drainages in WRIA 14. Fall Chinook salmon are present in Sherwood/Schumacher, Deer, Cranberry, Goldsborough, and Mill creeks and summer chum are present in Sherwood/Schumacher, Deer, and Cranberry creeks. Most salmon species are of wild origin, although some mixed stocks are present from prior hatchery chum and coho releases (WDFW 2020b).

Increased floodplain habitats and improved riparian and instream habitat conditions would primarily benefit juvenile salmonid rearing habitats by providing increased area and quality of summer rearing habitats. This would improve both productivity and survival of juveniles, particularly coho and steelhead. The restoration of floodplain processes and functions could also improve summer/fall base flows and reduce water temperatures. This would improve both juvenile and adult migration conditions. Low flows have been identified as a high priority limiting factor in WRIA 14 (Kuttle 2002) and the restoration and reconnection of floodplain habitats and riparian enhancements provide shading, food web support, and flood and sediment attenuation functions.

Identification of anticipated support and barriers to completion.

No specific projects have been identified.

Potential budget and O&M costs (order of magnitude costs).

No specific projects have been identified.

Anticipated durability and resiliency.

Floodplain reconnection projects are durable as they restore natural processes to a reach of the river, allowing flooding and channel migration to occur unimpeded. Floodplain reconnection projects that provide the river with more room to meander and more ways to hold water for longer are important solutions to implement to restore watershed processes and to provide resiliency from a changing climate.

Project sponsor(s) (if identified) and readiness to proceed/implement.

No specific projects have been identified.

Documentation of sources, methods, and assumptions.

The following references were used:

Kuttel, M, 2002. *Salmonid Habitat Limiting Factors Water Resource Inventory Area 14, Kennedy-Goldsborough Basin*. Washington State Conservation Commission. November 2002.

Mason CD (Mason Conservation District Lead Entity), 2004. *Salmon Habitat Protection and Restoration Plan, Water Resource Inventory Area 14, Kennedy-Goldsborough*.

WDF (Washington Department of Fisheries), 1975. *A Catalog of Washington Streams and Salmon Utilization*, WRIA 14. Available at: https://www.streamnetlibrary.org/?page_id=95

WDFW, 2020a. Salmonscape. Available at: http://apps.wdfw.wa.gov/salmonscape/map.html

WDFW, 2020b. Salmon Conservation and Reporting Engine. Available at: https://fortress.wa.gov/dfw/score/score/maps/map_details.jsp?geocode=wria&geoarea=WRIA14_Kennedy_Goldsborough

Goldsborough Hilburn Restoration Project

PROJECT DESCRIPTION

Description

The Goldsborough Hilburn Restoration Project (Project) site is located approximately 500 feet upstream of Highway 101 near Shelton, WA, has been impacted by the placement of fill and armoring in the floodplain and immediate stream channel, resulting in a homogenous channel form that is mostly a riffle-glide complex.

The project involves removal of up to 7,800 cubic yards (CY) of artificial fill that is constricting Goldsborough Creek. The constriction is presumably causing higher-than-normal flow velocities during flood events, exacerbating the lack of flood refuge for salmonids, a problem also seen in other areas of Middle Goldsborough, and possibly causing channel incision (e.g. an existing, underground gas-line has been exposed, indicating active incising). Additionally, the project would widen the floodplain from 58 feet to 200 feet and add large wood and riparian vegetation, both of which are lacking in the project area.

Qualitative assessment of how the project will function.

Stream conditions at this site and reach provide little salmonid rearing habitat, holding water, covered pools, or floodplain off-channel areas. The site has a high potential for restoring natural processes and augmenting the habitat with in-stream woody elements, relative to reference quantities (Fox and Bolton 2007).

Conceptual-level map and drawings of the project and location.

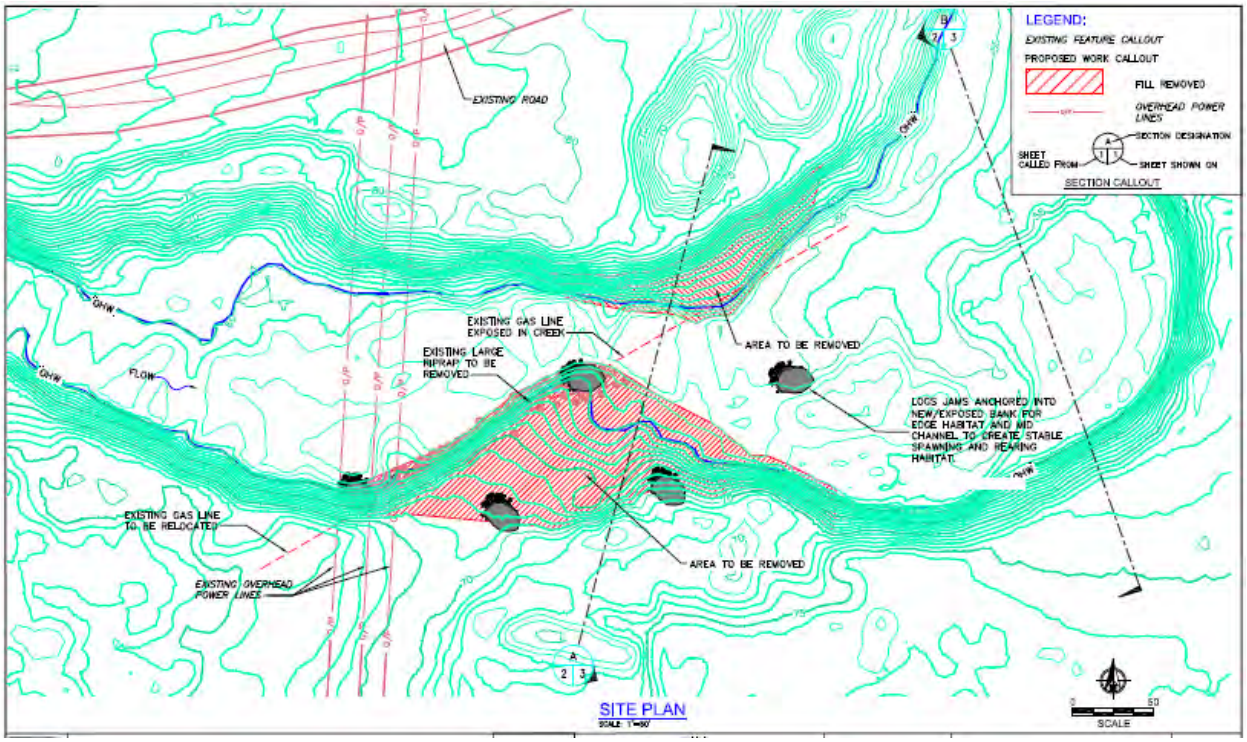

Figure 1. Goldsborough Creek Watershed Fish Habitat Enhancement Site Plan.

Description of the anticipated spatial distribution of likely benefit

The project would restore up to 500 feet of the Middle Goldsborough Segment. This will increase usable aquatic habitat.

Performance goals and measures.

The performance goals are to restore the natural processes and augment the habitat with in-stream woody elements, a need for this reach according. Specific metrics for these attributes will be defined based on the restoration design.

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

This site and reach is used by multiple salmonid species including fall Chinook salmon (presence), coho salmon (spawning), fall chum salmon (spawning), and winter steelhead trout (spawning). Increasing hydraulic and habitat complexity with fill removal and LWD additions would increase habitat quantity and quality for pre-spawn holding in pools, variable current velocities, depths, and substrate composition that would be suitable spawning and rearing habitat for multiple species.

Identification of anticipated support and barriers to completion.

This project is supported by the South Puget Sound Salmon Enhancement Group and the WRIA 14 Lead Entity, but has not been developed enough to identify barriers to completion.

Potential budget and O&M costs.

The total costs of construction, engineering, permitting, and cultural assessments are estimated to be less than $1,000,000 (includes engineering and construction costs).

Anticipated durability and resiliency.

The project would have lasting benefits and would not require operation and maintenance, once it is established.

Project sponsor(s) (if identified) and readiness to proceed/implement.

The project sponsor would be South Puget Sound Salmon Enhancement Group.

References

Fox, M. and S. Bolton. 2007. A reginal and Geomorphic Reference for Quantities and Volumes of Instream Wood in Unmanaged Forested Basins for Washington state. North American Journal of Fisheries Management. Volume 27 (1): 342 – 359.

SPSSEG. 2010. Goldsborough Creek Constriction Removal Project. Salmonid Habitat Project Development. December 2010.

Managed Aquifer Recharge Projects in WRIA 14

PROJECT DESCRIPTION

Description

The WRIA 14 WRE Committee has identified managed aquifer recharge (MAR) projects as a viable approach to offsetting the consumptive use associated with permit exempt well growth. MAR projects may include many water sources, such as stormwater, Class A reclaimed water, and peak flows in rivers and streams. This general project is limited to MAR projects that divert, convey, and infiltrate peak seasonal river flows in engineered facilities that are in connection with the local alluvial aquifer that the donor stream or river is also in connection. Flows would be diverted in quantities that would not reduce habitat suitability for salmonids and that do not reduce habitat forming processes. Seepage back into the river would result in attenuation of these flows, increasing base flows across a broader time period, including the late summer and early fall, when flows are typically the lowest, and water demand for consumptive use is the highest.

This project description describes candidate MAR locations, potential methods for diversion and conveyance, potential diversion quantities, typical infiltration basins that would infiltrate those diversion quantities, and the associated offset benefits. Detailed feasibility analysis is not included in this project description and would occur during plan implementation for each specific location.

Quantitative or qualitative assessment of how the project will function, including anticipated offset benefits, if applicable. Show how offset volume(s) were estimated.

Potential MAR locations were determined based on a screening process (Attachment A). Areas in WRIA 14 with the following features were considered for candidate locations:

- Favorable soils and geology-
    - No wetlands, lakes, or high groundwater areas
    - Exposed till less than 10 feet estimated thickness
- Favorable Land Use
    - Undeveloped or Forestry
- Proximity to potential water source
    - Potential water sources included peak flows from Schumacher Creek, Sherwood Creek, Deer Creek, Cranberry Creek, Johns Creek, Goldsborough Creek, Mill Creek, Skookum Creek, Kennedy Creek, and Perry Creek
    - ½ mile from potential donor waterbody
- Land ownership

This screening resulted in favorable areas and specific locations for consideration during WRE Plan

implementation (Figure 1). Additional candidate locations may be proposed during plan implementation. Additional candidate locations are likely to be within these favorable areas but may also be demonstrated as suitable for MAR based on an independent site-specific analysis.

Potential streams that could be part of MAR projects are those that have a flow record adequate for an assessment of flow diversion quantities and infiltration facility design. Diversion flows could be proposed based on maintaining minimum instream flows and habitat forming processes (i.e. ecological flows). Diversion flows were set at 2 percent of wet season (November – April) minimum flows. Diversion of flow to an MAR facility could occur during days when flows exceed minimum instream flows. These days were tallied for each day in the flow record and summed by month (Table 1). These "diversion days" were averaged across all water years in the flow record. Then those averages were summed during the wet season months. This number of "diversion days" for each site, represents the average number of diversion days.

A more conservative approach was also employed that summed the number of "diversion days" for the wet season (November – April) for each water year. Then, the smallest number of "diversion days" among the years in the flow record was selected (Table 2).

The minimum and average volume of water that could be diverted to one or more MAR facilities in each stream was calculated by multiplying the diversion flow by the number of diversion days, and transforming the volume to acre-feet/ year (Table 3).

Diversion

Typical capture and recovery methods vary by water source but include some combination of a screened gravity diversion/bypass, a screened water lift and/or pump system, or a series of below ground infiltration galleries/collector pipes (e.g. Raney wells) adjacent to source streams. All of these methods would need to be evaluated based on a number of factors including operation and maintenance, fish passage performance, permitting, reliability, public safety, construction and lifecycle cost, and available funding mechanisms (HDR 2017) in order to determine the best fit for the water source. Screened water gravity diversions require the most extensive infrastructure but would need the least amount of effort to get water into conveyance structures. Screened water lift and/or pump systems would require less infrastructure than a screened water gravity diversion however the risk of damage would be greater.

The WRIA 14 Committee acknowledges that some diversion methods including in-channel structures may pose an impact to fish habitat, and strongly advocates for the use of diversion methods that do not include in-channel structures. For example, diverted water could be conveyed through a collector well adjacent to the river (e.g. Ranney Collector well). The WRIA 14 Committee suggests that projects should be specifically designed to enhance streamflows and to avoid a negative impact to ecological functions and/or critical habitat needed to sustain threatened or endangered salmonids.

Conveyance

After capture and recovery, water would be transported to the MAR site through a conveyance system which would be some combination of open canals/ditches, surface and subsurface closed piping, tunnels, and trenches (e.g. lined and unlined). Conveyance can be facilitated through gravity fed structures or strategic pumping throughout the system. Once constructed or modified, maintenance – including repair, leakage control, preventing recontamination, and the operation of pumping stations where gravity pressure is not enough– has to be ensured. Ideally, source streams and MAR sites would be in close proximity to minimize the complexity of the conveyance system.

Storage and Infiltration

MAR sites (e.g. shallow aquifer recharge sites) are expected to consist of one or more small storage reservoirs (ideally less than 10 AF in volume or less than 6 feet in height). After water is captured during periods of excessive river flow, water will be conveyed into storage reservoirs and allowed to infiltrate into the local water table over time. Infiltration sites must be chosen carefully and evaluated for potential infiltration rates and volumes as well as anticipated hydrologic and water quality effects resulting from the project. Suitable sites would have permeable material at the surface and a water-table deep enough to allow levels to rise without causing problems, such as flooding.

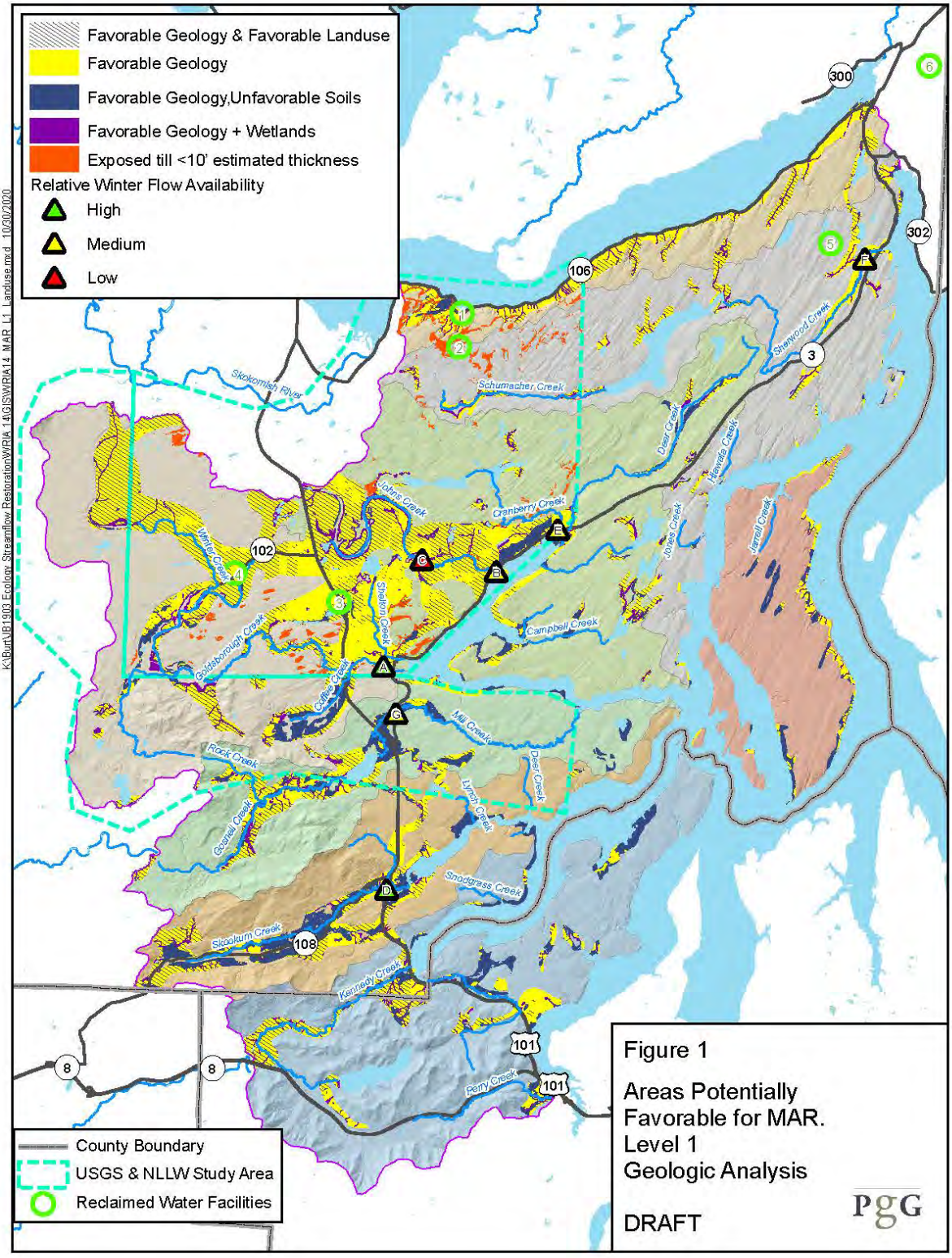

Figure 1. Favorable areas for MAR for feasibility analysis during plan implementation.

Table 1. Average measured monthly flow, minimum monthly instream flow, and the average number of days each month, where flows exceed minimum flows. Total number of days where flows exceed minimum flows during the wet season (November – April) are summed at the bottom. All flow values are in cubic feet per second.

	Kennedy Creek			Goldsborough (USGS) at S 7th St.			Johns 1 at Hwy. 3			Johns 2 at Johns Cr Rd.			Skookum at Hwy. 101			Mill at Hwy. 3			Cranberry at Hwy. 3			Sherwood at E Sherwood Cr Rd		
Month	Avg	Min. Inst	Days	Avg	Min. Inst	Days	Avg	Min. Inst	Days	Avg	Min. Inst	Days	Avg	Min. Inst	Days	Avg	Min. Inst	Days	Avg	Min. Inst	Days	Avg	Min. Inst	Days
Jan	119	NA	10	341	50	31	97	45	20	63	45	9	140	40	27	153	65	27	99	50	21	140	60	28
Feb	92	NA	10	250	85	28	69	45	12	47	45	13	87	40	19	116	65	21	66	50	16	106	60	22
Mar	100	NA	10	258	85	30	72	45	12	50	45	19	100	40	24	121	65	23	72	50	15	128	60	23
Apr	56	NA	0	196	85	29	54	45	7	38	45	9	57	40	17	81	65	16	48	50	12	79	60	19
May	38	NA	0	119	85	21	34	34	4	24	34	2	29	26	13	49	55	9	29	31	8	50	48	11
June	17	NA	0	75	85	7	21	20	3	15	20	0	13	11	13	29	40	3	17	18	10	32	29	15
July	8	NA	0	51	55	8	14	12	6	9	12	6	5	5	10	18	28	0	10	11	9	19	18	17
Aug	6	NA	0	41	48	2	11	7	13	7	7	11	2	3	5	13	20	0	7	8	6	14	11	15
Sept	5	NA	0	45	45	6	10	7	12	7	7	6	4	3	9	14	20	2	9	8	13	16	11	14
Oct	11	NA	0	82	50	16	17	7	19	12	7	7	22	6	17	32	20	14	18	15	11	34	19	19
Nov	57	NA	0	221	50	29	52	45	9	36	45	3	114	40	21	114	65	19	61	50	12	100	60	19
Dec	99	NA	10	274	50	31	78	45	15	50	45	5	114	40	23	124	65	22	80	50	17	144	60	22
Total			40			177			75			58			131			128			92			133

Table 2. Number of days that flows exceed minimum instream flows during the wet season (November – April) and the minimum number of days among all years for each flow station.

Flow Station	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Minimum
Skookum at Hwy. 101	84	113	117	104	122	158	133	165	104	146	129	157	164		84
Goldsborough (USGS) at S 7th St.		179	172	177	166	181	176	182	180	178	181	182	181	181	166
Johns 1 at Hwy. 3		91	159	87	36	123	151	132	110	74	106	149	181	128	36
Johns 2	14	104	80	38	41	74	82	111	25	64	75	143	113		14
Mill at Hwy. 3		116	127	86	89	145	139	164	89	134	129	159	157		86
Cranberry at Hwy. 3		111	106	50	45	106	87	135	35	87	86	143	118		35
Sherwood at E Sherwood Cr Rd				72	85	172	137	179	90	127	131	169	165		72

Table 3. Potential MAR site locations, facility sizes, and water offsets

Stream	Location	Facility Size (sq ft)	Diverstion Flow (cfs)	Minimum Days Exceeding Minimum Flows (Nov - Apr)			Average Days Exceeding Minimum Flows (Nov - Apr)		
				Total Days of Diversion	Total Water Per Year (cfy)	Total Water Per Year (afy)	Total Days of Diversion	Total Water Per Year (cfy)	Total Water Per Year (afy)
Kennedy Creek	Summit Lake outlet or RM 5	6,200	1	40	3,456,000	79	40	3,456,000	79
Skookum Creek	Downstream of Kamilche Cr; headwaters	3,100	0.5	84	3,628,800	83	131	5,659,200	130
Mill	Downstream of Lake Isabella	6,200	1	86	7,430,400	171	128	11,059,200	254
Goldsborough Creek	~River Mile 7	6,200	1	166	14,342,400	329	177	15,292,800	351
Johns Creek	Downstream of Johns Cr Rd	3,100	0.5	36	1,555,200	36	117	5,054,400	116
Cranberry Creek	~ RM3	6,200	1	35	3,024,000	69	92	7,948,800	182
Sherwood Creek	DS of Mason Lake	6,200	1	72	6,220,800	143	133	11,491,200	264
					Total	910			1,377

Potential streams for MAR diversion, infiltration, and low-flow return in WRIA 14 vary in terms of the quantity of available flows, the seasonality of available flows, and the suitability of soils for MAR sites.

Kennedy Subbasin

Kennedy Creek could have an MAR site(s) at near the outlet of Summit Lake or at approximately River Mile (RM) 5. Both of these areas are forested and have suitable geology and soils for infiltration. Average monthly flows near the mouth range between 92 – 119 cfs between November and March (Table 1). Since no minimum flows are set for Kennedy Creek, the average flows were used as a basis for setting diversion flow quantities. An MAR diversion of 1 cfs during period is proposed over this period, which would be less than 2% of average wet season flows. A conservative estimate of 40 days (a third of the time) is estimated to be above these average flows, while still accommodating a 1 cfs diversion. (Tables 1 and 3).

Skookum Subbasin

Skookum Creek has unfavorable soils for MAR infiltration along much of its stream alignment (Figure 1). However, there are some small areas of suitable geology and soils in the headwaters and near the confluence with Kamilche Creek. Average monthly flows at Highway 101 range between 57 – 140 cfs between November and April (Table 1). Assuming that flows are similar downstream of Kamilche Creek, an MAR diversion of 0.5 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. Between 84 - 131 days were above minimum instream flows, while still accommodating a 0.5 cfs diversion (Table 1 and 2), resulting a potential water offset of 83 – 130 acre-feet/year (Table 3).

Mill Subbasin

Soils and geology are favorable for MAR sites immediately downstream of Isabella Lake (Figure 1). This location would be useful, in terms of providing cool groundwater recharge downstream of the lake. Average monthly flows for Mill creek at Highway 3 range between 81 -153 cfs between November and April (Table 1). An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. Between 86 - 128 days were above minimum instream flows, while still accommodating a 1 cfs diversion (Table 1 and 2), resulting a potential water offset of 171 – 254 acre-feet/year (Table 3).

Goldsborough Subbasin

Soils and geology are favorable for MAR sites near Goldsborough Creek at multiple locations (Figure 1). Average monthly flows for Goldsborough Creek at S. 7th Street (USGS gage 12076800) range between 196 – 341 cfs between November and April (Table 1). An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. Between 166 - 177 days were above minimum instream flows, while still accommodating a 1 cfs

diversion (Table 1 and 2), resulting a potential water offset of 329 – 351 acre-feet/year (Table 3).

Oakland Subbasin

Several streams are located in the Oakland Streams with available flow record include Johns Creek and Cranberry Creek. Average monthly flows for Johns Creek at Hwy 3 range between 81 – 153 cfs between November and April (Table 1). An MAR diversion of 0.5 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. Between 36 - 117 days were above minimum instream flows, while still accommodating a 1 cfs diversion (Table 1 and 2), resulting a potential water offset of 36 – 116 acre-feet/year (Table 3).

Average monthly flows for Cranberry Creek at Highway 3 range between 48 - 99 cfs between November and April (Table 1). An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. Between 35- 92 days were above minimum instream flows, while still accommodating a 1 cfs diversion (Table 1 and 2), resulting a potential water offset of 69 – 182 acre-feet/year (Table 3).

Case Subbasin

The primary streams in the Case subbasin include Schumacher Creek and Sherwood Creek. The two creeks are part of the same drainage, with Schumacher Creek flowing into Mason Lake, and Sherwood Creek flowing from Mason Lake (Figure 1). Average monthly flows for Sherwood Creek at Sherwood Cr Rd. range between 79 - 144 cfs between November and April (Table 1). Water could be diverted from the downstream end of Mason Lake and conveyed to an MAR site directly downstream of the lake outlet (Figure 1). An MAR diversion of 1 cfs (less than 2% of the lowest minimum instream flows) during period is proposed over this period. Between 72- 133 days were above minimum instream flows, while still accommodating a 1 cfs diversion (Table 1 and 2), resulting a potential water offset of 143 – 264 acre-feet/year (Table 3).

Hood Subbasin

Several small streams drain directly to Hood Canal. The unnamed stream that drains Devereaux Lake has suitable soils for an MAR site. This stream does not have flow data. Therefore, no MAR diversion scenario is currently proposed.

Harstine Subbasin

No candidate locations are proposed for the Harstine Subbasin. The only stream large enough to accommodate a small MAR project is Jarrell Creek. However, soils are generally unsuitable near the stream and on most of Harstine Island (Figure 1).

The total potential MAR diversion quantities for all streams proposed herein range between 910 – 1,377 acre-feet/year (Table 3).

Description of the anticipated spatial distribution of likely benefits

The benefits will vary depending on the Creek, fish use. MAR seepage back to any of the proposed creeks would target benefits to the low-flow summer and early fall period. This would benefit rearing for yearling salmonids such as coho, steelhead, and coastal cutthroat trout.

Performance goals and measures.

Performance goals would be the quantity of water diverted and infiltrated. This goal could be measured by metering the conveyance pipe flow and the water depth of the MAR infiltration basin. Secondarily, water table elevations between the MAR and receiving waters, flow in the receiving waters, and seepage observations could be done, as an indication of flow benefits.

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

These MAR projects would increase flow during the summer and early fall periods, increasing usable aquatic habitat, overall.

Identification of anticipated support and barriers to completion.

Mason County may support and implement these projects, with potential support from the Squaxin Island Tribe.

Potential budget and O&M costs.

The estimated costs for MAR projects are based on an assumption of ~$3,443/acre-foot of estimated offset. For the total 910 AFY estimated as potential offset for WRIA 14, this would equate to ~$3 million.

Anticipated durability and resiliency.

The project would require regular operation and maintenance.

Project sponsor(s) (if identified) and readiness to proceed/implement.

Thurston County, Mason County, and Mason County PUD #1 have indicated that they would be likely project sponsors, depending on site locations and further review.

Sources of Information

WDFW (Washington Department of Fish and Wildlife), 2020. Salmonscape mapping of fish distribution. Available at: http://apps.wdfw.wa.gov/salmonscape/

Attachment A

Managed Aquifer Recharge Assessment Methodology

Technical Memorandum

To: Department of Ecology WRIA 14 Watershed Restoration and Enhancement Committee

From: Peter Schwartzman, LHG

Re: WRIA 14 Managed Aquifer Recharge Assessment Methodology

Date: December 18, 2020

This technical memorandum documents the methodology used to identify properties that appear to have characteristics favorable for Managed Aquifer Recharge (MAR) in Kennedy-Goldsborough Basin, Water Resources Inventory Area (WRIA) 14. This work was completed by Pacific Groundwater Group (PGG) on behalf of the WRIA 14 Watershed Restoration and Enhancement (WRE) Committee (Committee) and the Department of Ecology (Ecology). This work was performed under Ecology Contract Number C1700029, Work Assignment PGG104.

Under RCW 90.94.030, Ecology has the responsibility to convene WRE committees and prepare WRE plans for eight WRIAs in the Puget Sound and Hood Canal areas. The general purpose of the plans is to document potential offsets to projected depletion of instream flows resulting from new, permit-exempt domestic well uses in the WRIAs over the next 20 years.

MAR project sites potentially can support watershed restoration and enhancement projects within the WRIA by potentially offsetting the impacts of permit exempt wells on WRIA streams. For this evaluation, MAR was defined as recharge via infiltration of source water at or near the land surface. A portion of recharged water is expected to follow subsurface pathways and return to hydraulically connected streams. To support development of the WRE plan for WRIA 14, PGG used regional data to assist the Committee in selecting properties within WRIA 14 that appear to have favorable infiltration characteristics and a close enough proximity to source water so that MAR may occur with reasonable economic efficiency. This memorandum outlines the methodology used to identify potentially favorable MAR project sites.

PROCEDURE

Regional soils, geologic, wetlands and land-use coverages were compiled for WRIA 14 using Geographic Information System (GIS) software. A series of screening criteria were then applied to identify sites that appear most favorable.

Screening Level 1- Surficial Geology, Soils, Wetlands and Groundwater Flooding

The initial screen focused on areas where regionally mapped soil and geologic units appear favorable for infiltration. The following criteria were applied:

1. Surficial geologic maps were reviewed and geologic units primarily composed of sand

and/or gravel were identified as favorable for infiltration, while low permeability units (with higher silt and/or clay contents or bedrock) were excluded. Surficial geology was based on regional (1:100,000-scale mapping) by DNR (Schasse, 1987). Favorable geologic units were associated with alluvium, recessional glacial outwash and advance glacial outwash.

2. Areas with unfavorable geology (glacial till exposed at the land surface) were generally excluded; however, PGG identified areas where hydrogeologic characterization performed by the USGS (REF) suggested that the till may be sufficiently thin (<10 feet) that excavation could provide an infiltration pathway to underlying materials (typically advance glacial outwash). This approach differs from infiltration at the land surface in that recharge occurs deeper in the groundwater flow system. Additional hydrogeologic characterization would be required to assess the value of recharge the advance outwash. Although few streams are mapped as penetrating advance outwash, model simulations may suggest reasonable hydraulic connectivity between streams and advance outwash (Massman, 2020).
3. Soils types mapped by the Natural Resources Conservation Service[57] were reviewed and those classified in "Hydrologic Soil Groups[58]" (HSG's) with high runoff potential (low infiltration potential) were excluded from the areas of favorable surficial geology. Unfavorable soils were classified for HSG's "C" and "D", along with "dual hydrologic soil groups" associated with poorly-drained soils exhibiting a shallow water table (e.g. "A/D", "B/D"). Whereas "A" and "B" HSG's indicate low and moderately-low runoff potential, "C" and "D" HSG's indicate moderately-high and high runoff potential (NRCS, 2007).
4. Wetlands, lakes, and high groundwater areas (as mapped within and by Thurston County) were excluded from the favorable infiltration areas defined based on criteria in bullets #1 and #3 (above).

Hydrogeologically favorable areas that meet the Level 1 screening criteria are shown in **Figure 1**.

Screening Level 2 – Favorable Land Use for MAR

PGG obtained GIS coverages of land use from Thurston and Mason counties and identified those land uses that might be most amenable to installation of an infiltration facility where infiltration potential is favorable. Land use data were available for the entire WRIA, of which 15% was listed as "water". Out of the terrestrial portion of the WRIA, land uses deemed potentially favorable for MAR included: commercial lumber and wood (<0.1%), governmental services (2%), educational

[57] https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
[58] https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=22526.wba

services (0.15%), parks (1%) and designated forest land (56%). The remaining land use were deemed 41% of the terrestrial WRIA) were deemed likely unfavorable for MAR. PGG added diagonal hatches to the hydrogeologically favorable areas identified in Screening Level 1 (**Figure 1**).

Screening Level 3- Potential Source Water Considerations

Figure 1 also illustrates potential water sources for MAR. HDR assessed selected streams within WRIA 14 for flow availability by calculating the difference between monthly average flow and the minimum instream flow requirement (HDR, 2020). PGG used the magnitude of these monthly values for the months of November through April to classify steams as having relatively high, medium and low availabilities. Flow availability was evaluated at specific gaging stations within the WRIA, shown as triangles on **Figure 1**. The triangles were colored to indicate high, medium and low relative flow availability, and labeled to correspond to the table below.

Stream/Location	Winter (Nov-Apr) Availability	Map Symbol
Goldsborough (USGS) at S 7th St.	High	A
Johns 1 at Hwy. 3	Med	B
Johns 2 at Johns Cr Rd.	Low	C
Skookum at Hwy. 101	High	D
Mill at Hwy. 3	Med	G
Cranberry at Hwy. 3	Med	E
Sherwood at E Sherwood Cr Rd	Med	F

Figure 1 also includes the locations of reclaimed water facilities (provided to PGG by the Squaxin Tribe) as potential MAR, indexed using the ID numbers below:

ID	Name
1	Alderbrook Wastewater Plant
2	Alderbrook Golf Course
3	Shelton Reclaimed Water Plant
4	Shelton Reclaimed Water Sprayfield
5	Allyn Reclaimed Water Plant, Basins, Sprayfield
6	Belfair Reclaimed Water Plant, Basins, and sprayfield

ADDITIONAL CONSIDERATIONS

As noted above, MAR was defined herein as infiltration of source water at or near the land surface. Another mechanism for MAR would be injection of source waters to deeper portions of the groundwater flow system, most realistically the Vashon advance outwash that occurs beneath Vashon glacial till (hardpan). Recharge to the advance outwash via infiltration is mentioned above, but where the till is thicker, injection wells would need to be constructed to fully penetrate the till and deliver source water to the advance outwash. In some cases, the upper portion of the outwash may be unsaturated, and injection into this unsaturated zone would provide some level of treatment (similar to typical surface infiltration project designs). In some cases, the advance outwash will be fully saturated below the till. Injection directly into saturated advance outwash may require additional levels of pre-treatment. Although WRIA streams typically occur above the till, groundwater modeling has suggested a reasonable degree of hydraulic connection between the advance outwash aquifer and surficial streams (Massmann, 2020). Should MAR by injection be considered, additional modeling work would be needed to better understand the pathways, proportions and timing by which water injected into the advance outwash would return to streams.

Another factor worth considering is the distance between MAR sites and source waters. Close distances reduce the cost of conveyance between the source (stream, reclaimed water facility, etc.) and the MAR site, making MAR projects more economically appealing. However, based on distance and geologic conditions, MAR sites too close to streams may not provide the timing of subsurface return flow desired to enhance streamflow. For instance, if streamflow is available as an MARE source between November and April, one would want a substantial portion of subsurface return flow to reach the stream during alternate months (May thru October, with additional preference for the low-flow months in late-summer and fall). Where proximity and hydrogeologic conditions support quick return flows from the MAR site to the stream (e.g. days to weeks), flow benefit during the desired season is reduced. Effectiveness is improved where

return flow timing is on the order of months or is more even year-round. Year-round availability is an express advantage of reclaimed water sources.

FUTURE STEPS

PGG recommends that individual properties within the areas of identified favorable geology *and* favorable land be identified, prioritized and selected for site specific feasibility analyses. Sponsors for planning, designing, constructing and maintaining MAR projects will also need to be identified and paired with individual projects. Initial project feasibility considerations will include site ownership (and if the owners would consider selling, leasing, or permitting easements on their property to allow MAR) and the relative cost and complexity of providing source water to the site. Different sites will likely have different conveyance requirements that could include pumps, pipelines with significant elevation gain, long-distance subsurface pipelines, and pipeline easements for each property crossed by the conveyance line. For sites that remain favorable following initial owner outreach and conveyance considerations, a site specific hydrogeologic evaluation should be performed to identify local soil and aquifer hydrologic properties, depth to groundwater, and groundwater flow direction and gradient. Groundwater mound height and return flow travel time estimates would be included in this evaluation, as well as potential water quality or treatment concerns (such as the removal of particulate matter) prior to infiltration.

REFERENCES

HDR, 2020. Personal communication between Chad Wiseman (HDR) and Peter Schwartzman (Pacific Groundwater Group) dated 9/3/2020.

Massmann, Joel. 2020. Personal communication between Joel Massmann (Keta Waters) and Peter Schwartzman (Pacific Groundwater Group) dated 12/8/2020.

NRCS, 2007. National Engineering Handbook, Part 630, Hydrologic Soil Groups. Document 210-VI-NEH dated May 2020. https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=22526.wba

Pringle, R.F., 1990. Soil Survey of Thurston County, Washington. U.S. Department of Agriculture, Soil Conservation Service.

Schasse, H.W., 1987. Geologic Map of the Centralia Quadrangle, Washington. Washington State Department of Natural Resources, Division of Geology and Earth Resources Open File Report 87-11.

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Mason County Rooftop Runoff

INFILTRATION RECHARGE ANALYSIS FOR STREAMFLOW AUGMENTATION NET BENEFITS

TECHNICAL MEMORANDUM

Date:	Tuesday, December 01, 2020
Project:	Watershed Restoration & Enhancement Committees Technical Support
To:	Angela Johnson (Ecology) and David Windom (Mason County)
From:	Chad Wiseman, Jerry Bibee, PE, and Grace Doran, EIT (HDR)
Subject:	Mason County WRIA 14 and 15 Rooftop Runoff Infiltration Recharge Analysis for Streamflow Augmentation Net Benefits

Background

This memorandum describes the evaluation of net water offset recharge benefit associated with Mason County's proposed Rooftop Runoff Infiltration Program requirement for new rural development. Mason County has proposed a possible modification of the County building code to require capture of roof runoff from new rural residential (RR) development, typically on 5 acre parcels or greater, with direct connection to home site infiltration facilities (i.e., parcel dry wells, infiltration trenches, infiltration galleries, or rain gardens). This proposed code revision would typically require infiltration facilities that achieve recharge of 85 percent of the annual average rooftop runoff for new RR parcel development roof, with some reduction possible in less permeable soils to limit infiltration facility sizes. Similar to assumptions regarding permit exempt well consumptive use withdrawals, the infiltrated runoff is assumed to result in shallow groundwater recharge to interflow, with an assumed down-gradient surface water benefit to receiving waters base flow augmentation.

RR growth outside of urban growth areas (UGAs) within Mason County has been projected by the Mason County Comprehensive Plan and for the development of the Watershed Resource Inventory (WRIA) 14 and 15 Watershed Restoration and Enhancement (WRE) Plans (HDR 2020a and 2020b). HDR modeled hydrologic response and infiltration potential for new RR parcel development under existing (baseline) development requirements and under the proposed infiltration program, and in variable soil types, to estimate water offsets to be gained through this low-impact development (LID) best management practice (BMP). The typical infiltration quantities per RR parcel for each respective soil type were then applied to the projected RR growth in rural Mason County and associated hydrologic soil group (HSG) types. The resulting net increases in recharge benefits (proposed minus baseline) were applied to projected RR growth in Mason County at the WRIA and subbasin scales. Mason County encompasses portions of WRIA 14 and WRIA 15, respectively (Figure 1). The WRIAs have nested subbasins (Figures 2 and 3).

The application of LID BMPs within the County are not specifically required at the current time since the County is not a NPDES MS4 Phase II community tied to onsite stormwater

management practices otherwise required in the 2019 Ecology Stormwater Management Manual for Western Washington (SWMMWW). Therefore, this water offset would not have occurred, if it were not for Mason County's proposal to create this requirement as a contribution to offsetting consumptive water use from rural residential growth. For the purposes of the WRIA 14 and 15 Watershed Restoration and Enhancement (WRE) Plans, the net infiltration recharge of rooftop runoff is equivalent to a water offset per RCW 90.94. The water offset benefits could be credited incrementally with continued RR growth under the current Mason County NPDES program status and implemented Rooftop Runoff Infiltration Program.

Figure 6: WRIA and Washington Counties within Project area

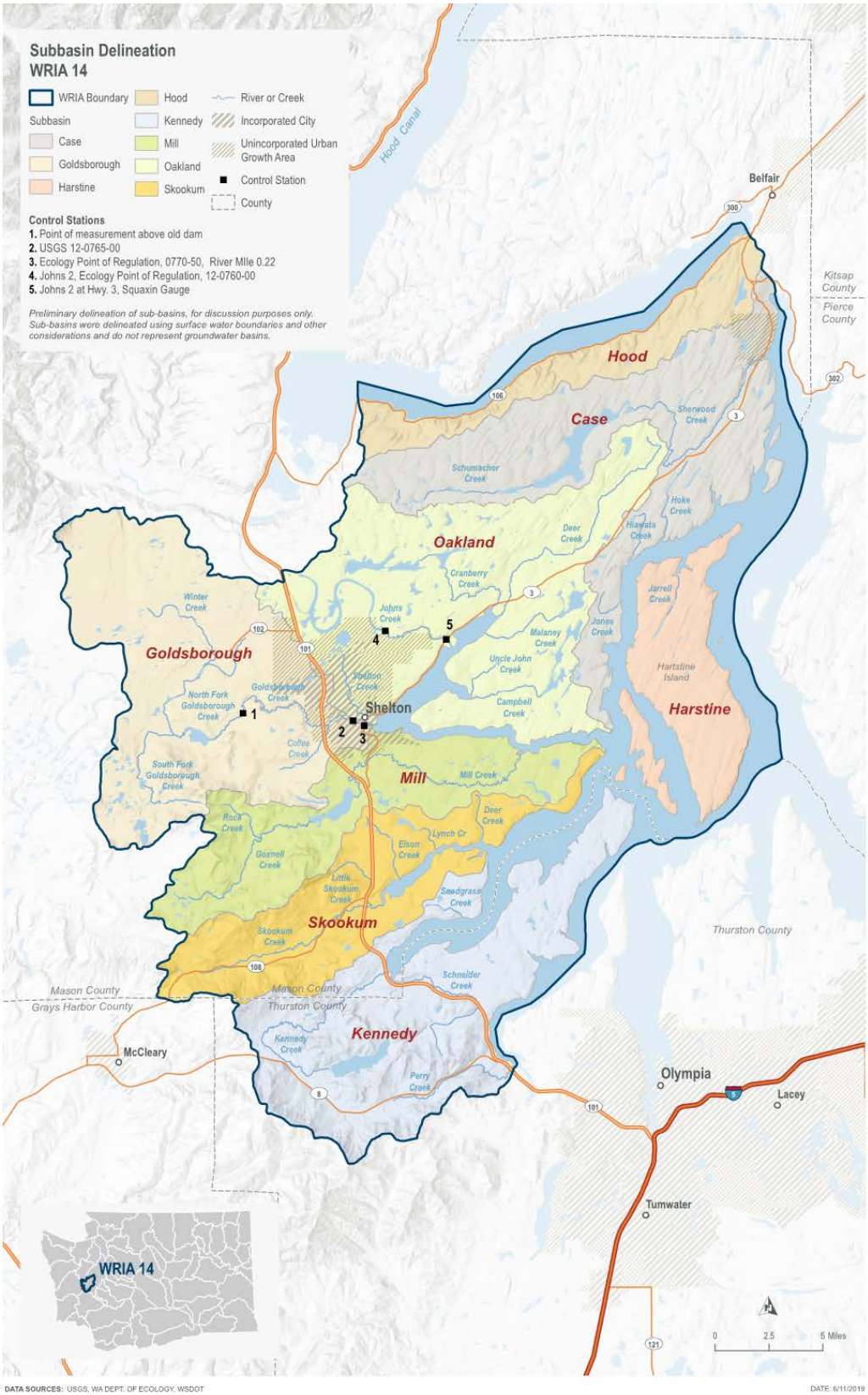


Figure 7: WRIA 14 subbasins

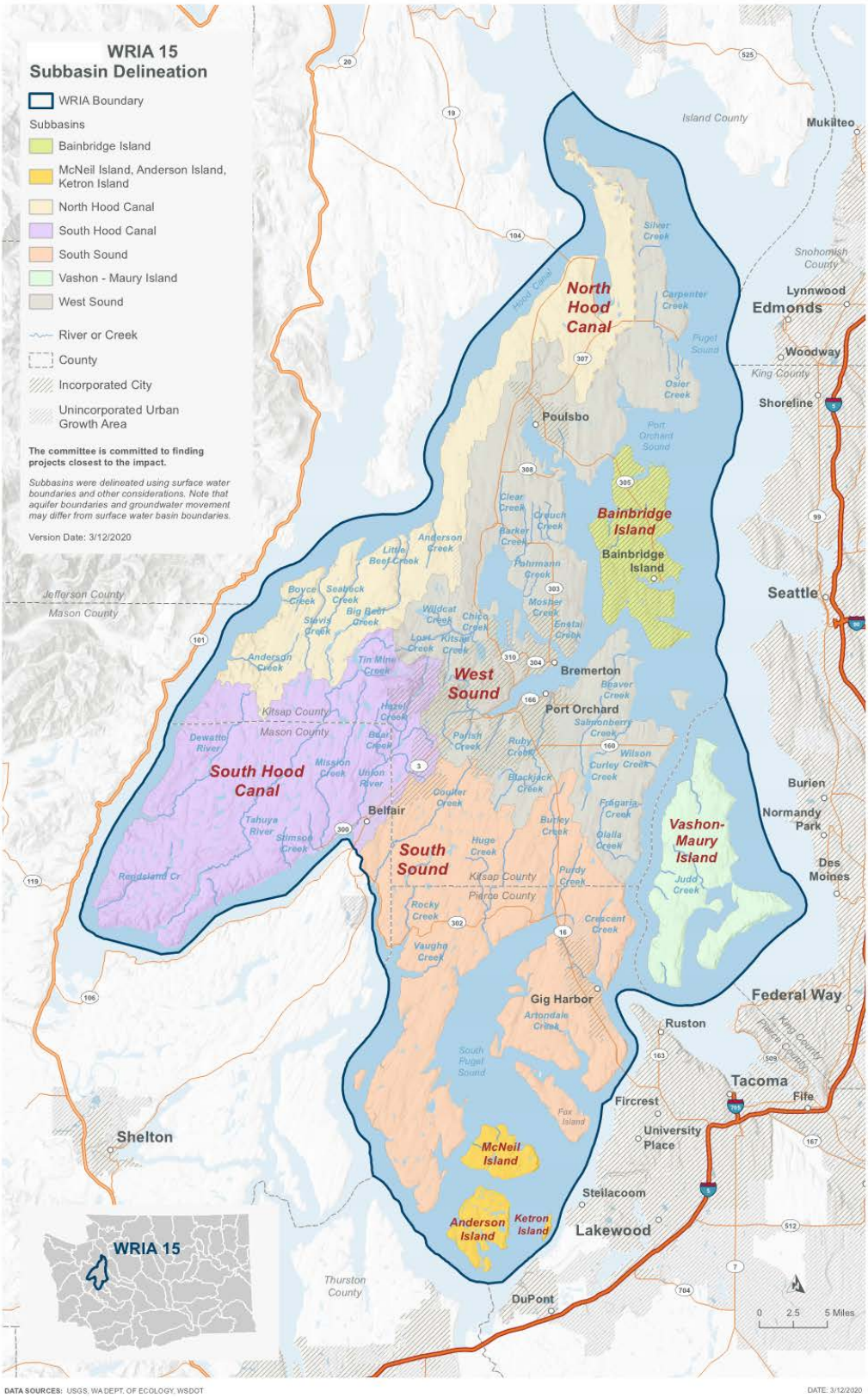


Figure 8: WRIA 15 subbasins

Analysis Methods and Assumptions

The following subsections describe the methods, conditions, and key assumptions underlying the Mason County Rooftop Runoff Infiltration Program analysis.

Analysis Approach Overview

Infiltration recharge volume estimates have been made for existing baseline conditions and standards, and for a proposal by Mason County to modify development standards to require direct infiltration of roof runoff. The analysis was conducted under an assumed set of typical parcel development conditions and under variable soil types. The resulting infiltration recharge volumes for each analysis condition were compared to establish the potential water offset net recharge benefit per RR development parcel under the evaluated soil types. Those parcel-level analysis results were then expanded to the WRIA 14 and 15 subbasins for characterization of the potential cumulative water offset benefits associated with this Mason County program proposal.

Characterization of Rural Residential Growth and Buildable Lands

The Mason County requirement to infiltrate rooftop runoff applies to buildable RR zoned lands, typically 5 acre and greater in parcel size (Figure 4). That collective land use totals approximately 186,000 acres of rural residential developable lands (Table 1), and with a total of 3,692 wells projected to service that area between 2018 and 2038. The projected 3,692 wells do not include the permit exempt wells that are anticipated to go into urban growth areas over that same period. The quantity of rural residences projected to be built in 2018 – 2038 in each subbasin were defined in the WRE Plan permit-exempt well and connection growth and consumptive use analysis (HDR 2020). The composition of HSG types (SWMMWW, Volume III-2.2) within the buildable lands were characterized within each subbasin (Figure 4). Group A, B, and C soils were evaluated, where Group A are outwash soils, Group B soils are transitional outwash to till soils, Group C are till soils. The transition in soils permeability from outwash to till soils ranges from high level to low level, with factored design infiltration rates ranging from 6.0 to 0.5 inches per hour evaluated. Group D soils are saturated/wetland soils and were not evaluated since achieving significant infiltration through them is not technically feasible.

Table 15: Total WRIA 14 and 15 RR developable area summarized by Hydrologic Soil Group

Hydrologic Soil Group	Cumulative Area of Soil Group (acres)
Group A	60,158
Group B	96,746
Group C	26,781
Group D	2,138
Total	**185,823**

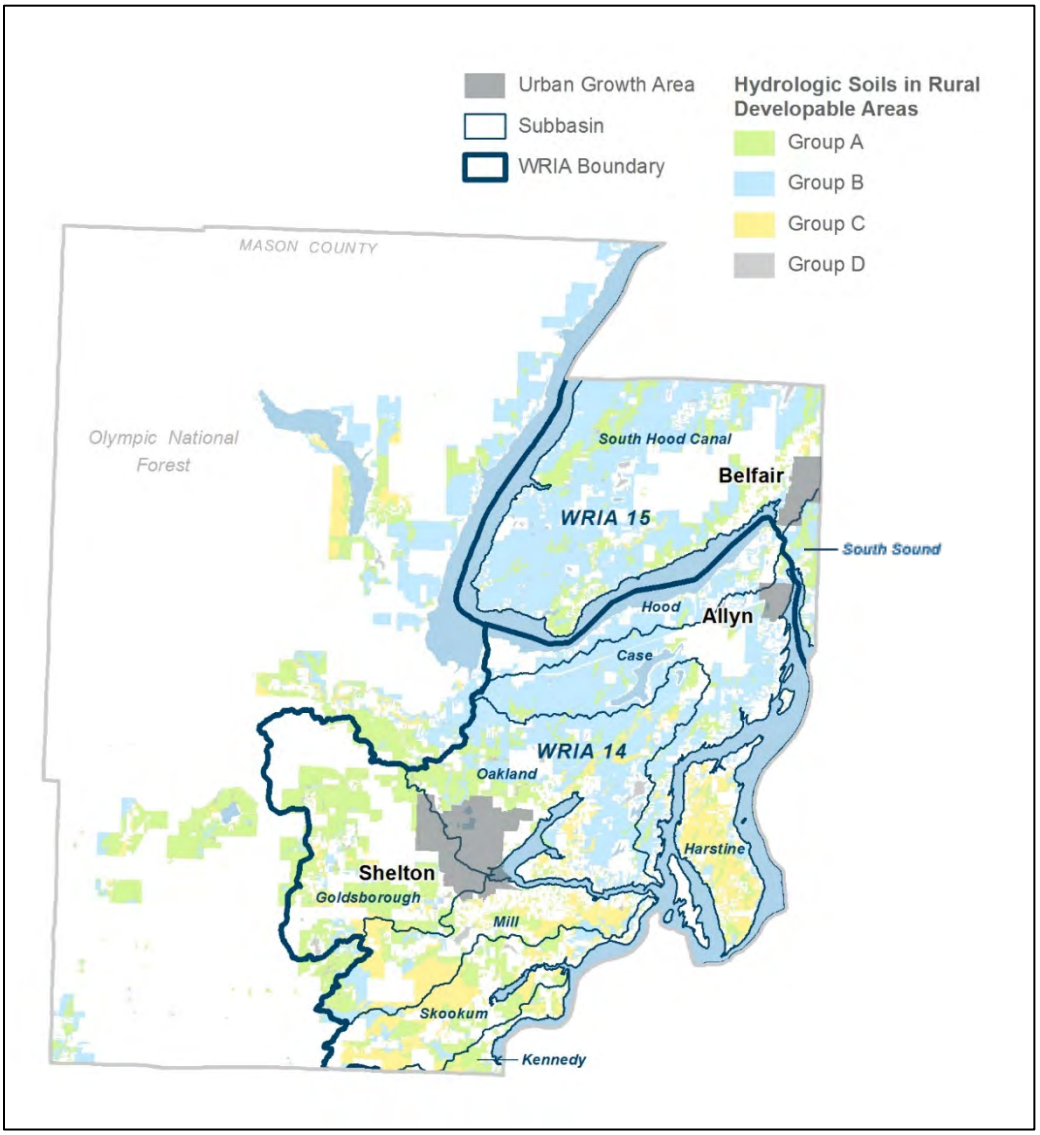


Figure 4: Rural residential buildable lands classified by hydrologic soil type.

Hydrologic Modeling Analysis Methods and Assumptions

MGSFlood, an Ecology-approved continuous simulation hydrologic model, was used to simulate RR parcel development area runoff and recharge through permeable surfaces in estimating the annual water balance to be applied to the WRIA subbasins rural residential developable lands. The analysis was conducted for a typical 5-acre developed parcel with typical land surface cover conversions as shown below. The analysis was conducted for the Group A, B, and C hydrologic soil classes, respectively, and using pervious land vegetation classes noted below. The following key assumptions were made for the MGSFlood hydrologic modeling analysis:

- Mean Annual Precipitation (MAP) is 70 inches (5.83 ft/yr)
- Individual parcel size is 5 acres
    - Cleared area of parcel is 1 acre (ac)
    - Typical house non-pollution generating impervious surface (NPGIS) area is 2,200 sf (0.05 ac)
    - Typical garage NPGIS roof area is 600 sf (0.014 ac)
    - Typical driveway pollution generating impervious surface (PGIS) is 1,200 sf (0.028 ac) (driveways were not considered for direct runoff recharge since they are pollution-generating surfaces)
    - Remainder of cleared site is grass
    - Remaining 4 acres is forested with native soil type
- Group A, B and C soils were evaluated with this analysis. For parcel runoff and infiltration simulation from pervious surfaces beyond roof runoff separately analyzed, Group B soils were proportionally split between outwash and till soils (the MGSFlood model does not include a Group B soil class)
- Group D soils were not included
- Soil permeability factored design rates for rooftop runoff infiltration trench analysis:
    - Group A = 4, 5, and 6 inches/hour (in/hr)
    - Group B = 1, 2, and 3 in/hr
    - Group C = 0.5 in/hr
- Infiltration facility depth of 2 feet
- The depth to water table beneath the infiltration facility is 5 feet or greater
- Filter strip soil permeability was assumed to be 3 in/hr to simulate a typical lawn topsoil or amended native soil, unless underlying native soil permeability was lower, in which case, it was set equivalent to that lower value

Parcel rooftop runoff was simulated using the MGSFlood model to evaluate rooftop runoff targeted for infiltration in each HSG, both under existing baseline condition development standards, and under the Mason County's proposed rooftop runoff modified development standard condition. The difference in recharge between those two conditions was used to assess the net increased benefit in recharge achieved. Separately, runoff from other parcel development area surfaces was evaluated as described in the following section, but since the infiltration characteristics of those surfaces under the two development standard conditions would not change, that analysis does not enter into the net recharge benefit evaluation.

Parcel Hydrologic Modeling Analysis (Beyond Roof)

To determine runoff and recharge for the entire 5-acre parcel, an MGSFlood model simulation was run to analyze the full recharge potential of the parcel. The roof infiltration changes from the baseline to proposed conditions was analyzed in a separate model simulation and was therefore not included in the full parcel analysis. Beyond the roof area, the analysis did not change between the baseline and proposed conditions. The land cover breakdown of a typical 5 acre parcel used for the MGSFlood analysis, excluding the 0.064 acres of roof area (house area, 0.050 ac, plus garage area, 0.014 ac), is shown in Table 2. Assuming 1 acre of the parcel would be developed, the soil group types of the remaining 4 acres of forested land was determined

based on GIS analysis. As stated in the assumptions, Group B soil type was portioned out between Group A (outwash) and Group C (till) soils.

Table 16: MGSFlood Soils-Land Cover Input for typical 5-acre parcel development without roof area

MGSFlood Input	Area (ac)
Till Forest	1.232
Till Grass	0.230
Till Pasture	0.678
Outwash Forest	2.768
Impervious (beyond roof)	0.028
Total	**4.936**

Rooftop Runoff Baseline Condition Analysis

To complete the roof runoff recharge analysis for the assumed 0.064 acre roof area, a baseline analysis was completed to estimate how much runoff would infiltrate using existing Mason County development standards (Mason County Code, Title 14, Chapter 14.48). The Downspout Dispersion System BMP from the SWMMWW (BMP T5.10B) was considered the most representative for comparative analysis of infiltration recharge potential. This BMP for a single roof down-drain is applicable for 700 square foot (sf) of roof and requires a minimum 20 sf infiltration trench area. The developed parcel roof area was assumed to be 0.064 acres (2,800 sf), so 80 sf of infiltration trench area (2-foot width by 40-foot length) was modeled for the entire roof for baseline conditions applicable to all soil groups. For the baseline analysis, a filter strip (SWMMWW BMP T9.40) was linked downstream of the infiltration trench to route overflow runoff from the trench across it as sheet flow. As a linked element in MGSFlood, the filter strip only receives excess flow that is not infiltrated within the infiltration trench. The filter strip was conservatively assumed to have an area of 4,000 sf, 40 ft in width by 100 ft in length, and was intended to mimic a typical developed lawn surface (with topsoil or compost-amended native soil).

The infiltration recharge analysis was completed for each soil group, using the assumed design permeability rates applied to the infiltration trench area. The filter strip was analyzed with a typical topsoil infiltration rate of 3 in/hr. However, where the underlying native soils have a lower infiltration rate than 3 in/hr, the permeability of the filter strip was set to the limiting subgrade soils value.

Rooftop Runoff Proposed Condition Analysis

The proposed analysis was conducted under Mason County's proposed modified development standard requiring increased rooftop runoff infiltration. For this analysis, it was also assumed that a 0.064 acre roof is connected to an infiltration trench that would accommodate the majority of the roof annual runoff volume.. This was analyzed using the MGSFlood model infiltration trench BMP element without consideration of a filter strip downgradient of the infiltration trench for supplemental overflow infiltration benefit. The recharge analysis was completed for each soil group applying assumed design permeability rates.

The proposed condition infiltration analysis was initially conducted for a range of roof runoff values, ranging from 85 percent to 100 percent annual average infiltration volume in 5 percent increments to determine the required area of the infiltration trench or equivalent infiltration gallery area. Based on the analysis findings, Ecology staff consulted with Mason County staff on the desired target annual recharge value, and direction was subsequently provided by Ecology to HDR to use an 85% annual roof runoff infiltration target value. An exception to that was requested by Mason County for Group C soils, where annual recharge is limited by a maximum requested infiltration facility area footprint of 620 square feet.

Analysis Results

Parcel Runoff Analysis Findings

For the typical developed 5-acre parcel under the modeling assumptions listed above, it was estimated that the annual recharge volume over pervious surfaces, without including roof infiltration, is approximately 14.2 ac-ft/yr. This represents about 50 percent of the annual precipitation volume over the parcel area. This component of the analysis results remains the same between baseline and proposed development conditions. This analysis was completed to show that the change in rooftop runoff recharge is a smaller component of the overall typical 5-acre parcel infiltration recharge volume.

Rooftop Runoff Analysis Findings

For typical developed parcel roof recharge analysis, soil infiltration rates were the key factor in estimating infiltration trench BMP size needs and the net recharge gain. As the soil infiltration rate decreases, the size of the infiltration facility increases. As stated previously, the Group C soil infiltration facility was sized at 620 sf, equivalent to the 1 in/hr infiltration rate facility size, resulting in 69 percent average annual infiltration volume (versus the standard 85 percent). The net average annual recharge gain compared to baseline was greatest for soils with the lowest infiltration rates (Table 3 and Figure 4).

Table 17: Baseline and proposed (85 percent infiltration) roof recharge

Per Parcel Roof 85% Proposed Recharge*												
Hydrologic Soil Group	Baseline							Proposed		Net Average Annual Recharge Gain		
	Infiltration Facility		Filter Strip			Total						
	Area (SF)	Average Annual Recharge (ac-ft/yr)	Infiltration Rate (in/hr)	Area (SF)	Average Annual Recharge (ac-ft/yr)	Average Annual Recharge (ac-ft/yr)	Percent Recharge	Infiltration Facility Area (SF)	Average Annual Recharge (ac-ft/yr)	ac-ft/yr	cfs	gpm
Group A - 6 in/hr	80	0.219	3.0	4,000	0.037	0.256	76%	227	0.285	0.030	4.1E-05	0.018
Group A - 5 in/hr		0.204			0.041	0.245	73%	252	0.285	0.040	5.5E-05	0.025
Group A - 4 in/hr		0.188			0.046	0.234	70%	294	0.285	0.052	7.1E-05	0.032
Group B - 3 in/hr		0.167			0.053	0.220	66%	337	0.285	0.065	9.0E-05	0.041
Group B - 2 in/hr		0.140	2.0		0.046	0.186	56%	420	0.285	0.099	1.4E-04	0.061
Group B - 1 in/hr		0.102	1.0		0.031	0.133	40%	620	0.285	0.152	2.1E-04	0.094
Group C - 0.5 in/hr*		0.072	0.5		0.019	0.090	27%	620	0.230	0.140	1.9E-04	0.087

*Proposed C soils infiltrate 69%

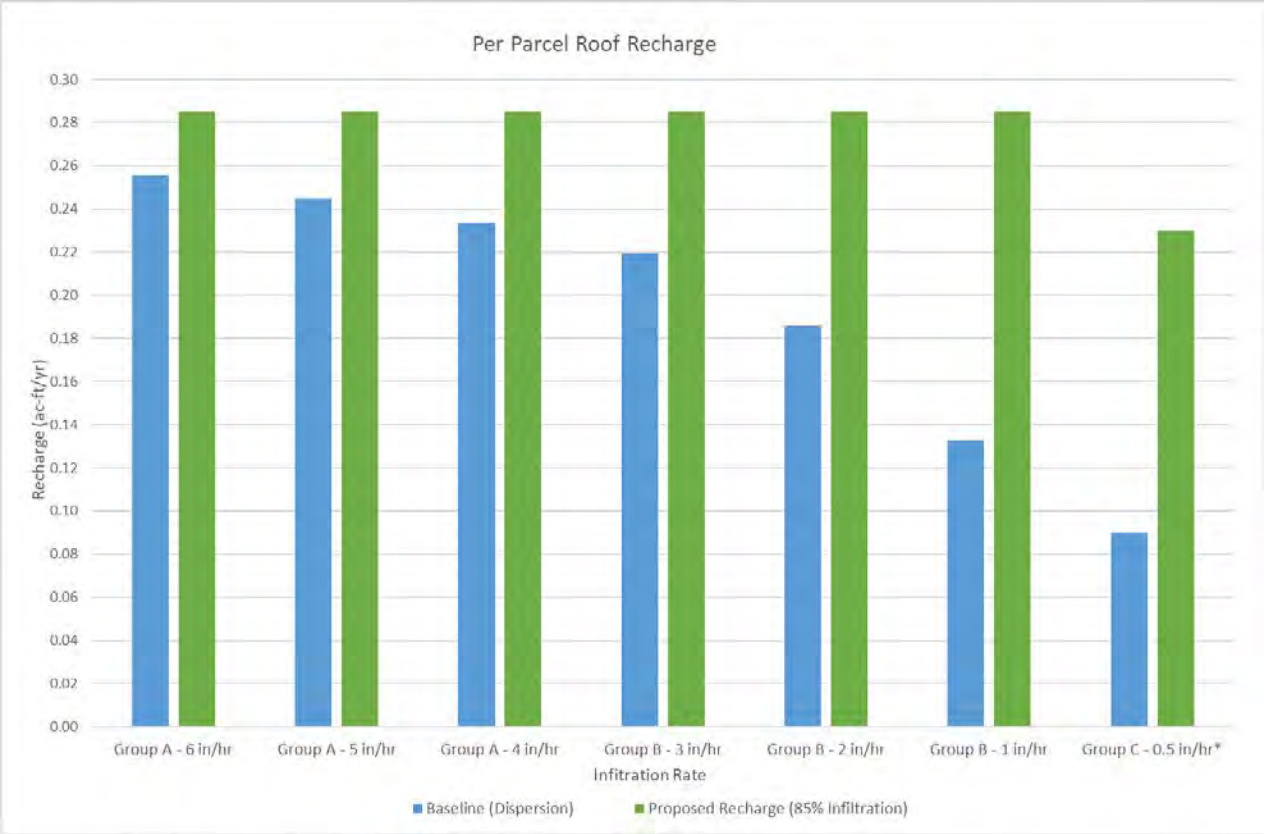


Figure 9: Parcel roof recharge comparison by soil group

Based on the parcel level analysis results, the typical net recharge gain for collective parcels in each soil group were extrapolated to the projected RR growth areas in the Mason County portions of WRIAs 14 and 15. The net recharge gain for proposed conditions infiltration capture compared to baseline conditions was used to estimate the projected offset for each soil group within each subbasin. For that evaluation, and the total potential offset for collective parcels

apportioned to the estimated number of wells were estimated in accordance with the analysis assumptions. The average of each soil group infiltration rate was used to complete this analysis, with 5 in/hr for Group A soils, 2 in/hr for Group B soils, and 0.5 in/hr for Group C soils being applied.

Based on 2,766 wells apportioned to assumed full parcel buildout within the WRIA 14 Project area, this yielded a total potential projected water recharge offset of 249 ac-ft/yr, at 85 percent recharge on an average annual basis. (Table 5).

Based on 926 wells apportioned to assumed full parcel buildout within the WRIA 15 Project area, this yielded a total potential projected water recharge offset of 79 ac-ft/yr, at 85 percent recharge on an average annual basis. (Table 5).

Table 5: WRIA 14 and 15 project area roof 85 percent estimated recharge and projected water offset from baseline by subbasin

85% Infiltration*											
WRIA	Subbasin	Mason County Rural Projected No. Permit-Exempt Wells	Soil Type Proportion			Well Proportion			Projected Offset (ac-ft/yr)		
			A	B	C	A	B	C	A	B	C*
14	Case	396	0.11	0.88	0.02	42	347	7	2	34	1
14	Goldsborough	338	0.82	0.08	0.11	276	26	37	11	3	5
14	Harstine	143	0.14	0.18	0.69	20	25	98	1	2	14
14	Hood	78	0.09	0.91	0.01	7	71	0	0	7	0
14	Kennedy	59	0.61	0.05	0.34	36	3	20	1	0	3
14	Mill	434	0.30	0.19	0.51	132	80	221	5	8	31
14	Oakland	955	0.24	0.67	0.10	226	636	93	9	63	13
14	Skookum	363	0.39	0.14	0.47	141	51	172	6	5	24
	Totals	**2766**								**249**	
15	Sough Hood Canal	834	0.22	0.76	0.01	186	637	11	7	63	2
15	South Sound	92	0.46	0.52	0.02	42	48	2	2	5	0
	Totals	**926**								**79**	

*Proposed C soils only infiltrate 69%

Project Costs

At this time, all estimated project costs are expected to be included in costs of construction for new homes, which could range from $3,780-$9,300 per home. For WRIA 14, this results in a total of ~$17 million for the total project (based on total projected PE well growth).

Response to WRIA 14 and 15 Committee Comments on Draft Analysis Memorandum

Ecology provided HDR comments from various committee participants based on the HDR Draft Technical Memorandum summarizing this analysis, dated September 4, 2020. Those comments consider committee feedback received from presentation of this analysis at prior committee meetings. HDR's response to those comments is included as Appendix A.

Mason County Rooftop Runoff Appendix A - HDR Response to Committee Comments on Draft Technical Memorandum

Mason County Rooftop Runoff Project

Comments Received as of 10/5/2020

Paul Pickett (Squaxin Island Tribe) Comments sent to Angela Johnson 9/23/2020

- A factor should be included to reduce total offsets to account for properties where the facility cannot be installed (site limitations like wetlands, slope, other setbacks)

  HDR Response: We did exclude all parcels with Type D hydrologic soil group (HSG) (typically wetland soils where roof infiltration (and parcel development) would typically not be allowed or feasible. We did not consider steep slopes and other setbacks, but the assumption is that some portion of 5 ac parcels may still be developable. There are more existing parcels than PE Wells, so we factored back the number of parcels to match the # of PE Wells to evaluate on a consistent basis with consumptive use, allocated by the various HSG areas.

- Soils should be assessed in PE growth hot spots within subbasins, not the entire subbasin, because those are the areas that facilities would be installed.

  HDR Response: This evaluation addresses potential incremental benefits per parcel as development occurs in the various subbasins, so the net benefits would accrue with parcel development wherever it occurs as PEWs are installed to serve those parcels. This evaluation was intended to be high level for project screening evaluation of potential cumulative benefits over time, and was not intended to be parcel location specific.

  The proportion of HSG types used in this analysis are based on the same buildable lands analysis that was used to spatially allocate PE Well growth for the consumptive use analysis.

- Where did the infiltration value come from? No citation was provided.

  HDR Response: The citation will be added. They were assumed from expected average long-term design infiltration rates for the various HSGs (Type A = 4 in/hr; Type B = 2 in/hr, Type C = 0.5 in/hr). Design infiltration rates under Ecology SWMMWW guidance are factored values from field measured values, typically established from a Pilot Infiltration Test (PIT). Typically cumulative factoring back of measured rates for long-term design infiltration rates ranges from about 0.2 to 0.4. So for example, for Type A soils, measured PIT infiltration rates would need to be in the 10-20 in/hr range for a 4 in/hr factored design infiltration rate, which would be typical of Type A soils. The typical long-term, factored infiltration rate in a Type C soil is normally around 0.5 in/hr, but can

be lower. Type B soils would fall in between, and can be highly variable, so 2 in/hr was assumed as a design infiltration rate for analysis. Therefore, the reference for this information is the Ecology SWMMWW (2019).

- How was the depth to water table determined? No citation was provided. Type C soils are likely to have shallow winter water tables. This is another factor that may make some parcels poor candidates for the facility.

  HDR Response: It was not determined at this screening level of analysis, but assumed to be of adequate depth (5 ft or greater from existing grade) to allow an infiltration trench BMP to be installed. This assumption can be added. Depth to water table would be variable depend on the depth of overburden soils (which may be more permeable) to underlying till. If adequate depth to shallow groundwater does not exist on a particular parcel, then those parcels may not be viable for this type of roof runoff infiltration BMP. Again, recharge benefits are incremental with parcel development, and associated only with parcels where the proposed County roof runoff development standard are technically feasible to implement.

- Average rainfall was used, but rainfall varies with time, and during wet spells soils may become saturated. Some analysis is needed for the amount of rainfall that would be in excess of infiltration capacity, based on patterns of rainfall in infiltration and soil saturation capacity. A factor should be applied for the reduction in potential infiltration.

  HDR Response: Rainfall variability is accounted for in the MGSFlood modeling analysis that is conducted using a long-term continuous time-series precipitation record and runoff simulation and recharge response to it. We're assuming a constant infiltration rate for subgrade soils based on soil type, even though some variability would likely exist over time. Generally, infiltration facilities tend to start with higher infiltration rates and performance, and can degrade over time with partial occlusion of subgrade soils. That effect is generically accounted for in the factored infiltration design rate.

- In Tables 3 and 4:

  - Only 15% of rainfall infiltrates in Group C soils. This suggests that 85% of the rainfall occurs at times when the soils are at capacity. Should the analysis assume that, if the soils can only infiltrate 15% of rainfall, it will also only infiltrate 15% of rooftop runoff?

    HDR Response: These values come from the MGSFlood continuous simulation modeling results. They suggest that under infiltration rates assumed for Type C (till) subgrade soils (0.5 in/hr design rate) that only 15% of the roof runoff volume would infiltrate in the infiltration trench area on an annual basis, under existing

development standards (min trench area per standards), and that 85% would result in overflow. Additional incidental infiltration down-gradient of the infiltration trench BMP could result in additional infiltration (not modeled), but for Type C soils, that would likely be limited, and result primarily in surface runoff to collection systems.

- What does "Net Average Annual Recharge Volume Gain" mean, and why does it get larger with less porous soils? I would expect the less infiltration capacity, the less recharge volume would result.

  HDR Response: It is the difference in roof runoff recharge volume per parcel on an annual average basis between baseline conditions (infiltration BMPs following existing development standards) and parcel developed conditions (larger infiltration facilities with sizes targeted to achieve either 95% or 100% infiltration). We analyzed the infiltration facility area that is required to achieve those post-developed infiltration volumes, which of course gets significantly larger in tighter soils. Since there is more change from baseline infiltration for Type C soils compared to Type A soils, the net recharge volume increases. I would expect that if we consider incidental infiltration beyond the infiltration BMP, that for Type A soils, the baseline would come up significantly in value, but for Type C soils, I would expect very little increase in baseline infiltration, so the net benefit in those tighter soils per parcel should remain relatively consistent with reported values. Type B soils would fall in between. Based on the GIS analysis conducted, the largest number of PE Wells were shown to be in Type B soils.

- If infiltration decreases with the Soil Group, the amount of offset benefit should decrease by soil group. Nowhere in the memo is this relationship shown.

  HDR Response: It is accounted for in the design infiltration rate, which under baseline conditions, results in less annual volume of infiltration progressing from Type A to Type C soils. In the parcel developed condition, we are adding to the infiltration BMP surface area to with tighter soils to achieve either the 95% or 100% average annual volume of infiltration. Therefore, the incremental net recharge benefit increases from Type A to Type C soils, as is demonstrated with the reported modeling results.

WDFW Comments sent to Angela Johnson 10/5/2020

- This approach proposes increasing the rate of infiltration of roof-top intercepted rainwater; therefore, any benefits would accrue within a short time period of the rainfall. The impacts of permit exempt wells are presumed continuous across the year and are likely to increase during dry periods. This makes it unlikely that any benefits accrued

from increased infiltration, would match the seasonal impacts of well withdrawals during critical flow periods.

HDR Response: Benefits from added recharge at parcels would primarily be seasonal (fall-spring) as noted, but the timing of those benefits to receiving water stream flow augmentation would be variable and extend over longer durations depending on hydrogeology/shallow groundwater interflow characteristics and travel paths to receiving waters. Agree that less recharge and stream flow augmentation benefit would be expected to occur in summer months. But the assumptions used in evaluation for annual volumes in water balance are the same as used in the for PE wells consumptive use evaluation for consistency.

- There are major assumptions imbedded throughout the technical memo including:
    - The analysis appears to only consider changes in infiltration based on soil type and roof/infiltration trench area. It is unclear whether the consumptive losses of evapotranspiration (ET) are considered in this analysis or accounted for in the MGSFlood model. ET losses could be significant but are not mentioned in the report.

      HDR Response: For the analysis, the estimated change in recharge compared to baseline applies only to the directly connected roof area. For the continuous simulation MGSFlood analysis, ET losses are built into the MGSFlood model runoff analysis, although I expect limited to evaporation that would be small for the impervious roof areas. For other parcel areas considered in a separate baseline analysis, ET losses are also evaluated in the runoff analysis from the various pervious area PERLND (soil type, veg cover) surfaces evaluated. That analysis doesn't enter into the net benefits evaluation.

    - It is unclear how the difference between pre-development infiltration and post-development infiltration is accounted for. The analysis appears to assume that nearly all water (95-100%) routed to the infiltration trench would contribute towards the estimated benefit.

      HDR Response: It is accounted for in the increased area of the infiltration trench BMP being used to simulate rooftop runoff infiltration characteristics and recharge quantities. For baseline conditions (existing County development standards), we set the roof infiltration trench length/area equal to the minimum development standard for that BMP type (20 sf per 700 sf of roof area) and evaluated for the various HSGs. For parcel developed conditions, we analyzed the required length/area of trench required to achieve annual infiltration volume of 95% and 100% of the annual roof runoff volume for the various HSGs based on assumed design infiltration rates (considered typical factored design values). There is a significant increase in infiltration facility size to go from 95% (approximately 2-yr event) to 100% full infiltration, so a slightly lower target (95%) makes more sense in setting a reasonable modified development standard for parcels infiltration facility sizing.

- Among other modelled assumptions, it is unclear how assumptions of average water table depth and average 1-acre clearing sizes were determined. Depth to water table and the effects of canopy interception from overhanging trees could significantly impact the estimated benefits.

  HDR Response: At this screening level of analysis, the assumption is that adequate depth to water table exists to apply a parcel development roof runoff infiltration BMP (typically 3 ft min from infiltration area subgrade, so 5 feet total including 2 ft depth of infiltration trench). The size of the cleared parcel is based on our understanding of what the County typically allows on a 5 ac parcel. We have not accounted for changes in recharge associated with the cleared area land cover area conversion at this level of analysis. Also, to our understanding, the County is not proposing a change in that criterion with the development standard change, which is focused on requiring only enhanced rooftop runoff infiltration) So that doesn't enter into the net benefits evaluation results as shown.

- There is no references section and the author of the memo is not listed.

  HDR Response: These will be added.

MEMO From Skokomish Tribe and Aspect Consulting with HDR Responses

Project No.: 190315

October 28, 2020

To: Dana Sarff, Skokomish DNR

cc: Seth Book, Skokomish DNR

From: Jonathan Turk, LHG; Jay Pietraszek, LHG

Re: **Technical Review of "Mason County WRIA 14 and 15 Rooftop Runoff Infiltration Recharge Analysis for Streamflow Augmentation Net Benefits"**

This memorandum presents Aspect's review of HDR's Technical Memorandum (Memo) "Mason County WRIA 14 and 15 Rooftop Runoff Infiltration Recharge Analysis for Streamflow Augmentation Net Benefits" (HDR 2020). The Memo was produced for the WRIA 14 and 15 Watershed Restoration & Enhancement Committees and documents the predicted benefits of capturing and infiltrating rooftop runoff for future rural residential (RR) development in Mason County. Aspect's review focused on the assumptions and methodology used by HDR. The model results and outputs presented in the Memo were not checked in detail.

Background

The Memo presents the predicted benefits to infiltration and recharge volumes from using rooftop collection and infiltration systems at future RR developments. Infiltration volumes were predicted for two conditions: a roof-down drain system (baseline) and infiltration trenches designed to capture all roof runoff (proposed) using MGSFlood, an Ecology-approved continuous simulation hydrologic model. The infiltration trenches under the proposed condition were varied in size based on soil hydrologic classifications. The increase in infiltration volumes under the proposed condition were extrapolated to represent the net-gain in recharge based on the proposed parcel buildouts in WRIA 14 and 15.

General Comments

We agree with the key principle behind the project: increasing infiltration of rooftop runoff will have a net benefit on groundwater recharge and streamflows and creates the potential for offset credits. We acknowledge that accurately quantifying the benefits is difficult. HDRs assumptions and methods produced results that may represent a best-case scenario but could be deemed unrealistic.

The simplified approach of extrapolating unit infiltration trench simulations to the watershed scale has inherent spatial and temporal limitations. Consideration of a more conservative approach and/or the use of a range of input values to account for uncertainties and unknown variability may be warranted. We recommend conditioning the interpretation of the results from the rooftop runoff analysis to consider:

- ***Water losses under the baseline condition:*** In the current model runoff that doesn't infiltrate into the roof-down drain system does not reinfiltrate and is considered lost (i.e., consumptive). In reality, at least a portion of this "overflow" could pond or disperse and eventually re-infiltrate. Some of the overflow may run onto an impervious surface and/or be lost to evapotranspiration. Differentiating between these portions may be needed to accurately assess the offset quantities

  HDR response: The analysis has been updated to estimate the extent of baseline conditions infiltration beyond the infiltration trench using a filter strip BMP (simulating an improved lawn area), conservatively sized, and analyzed within MGSFlood to estimate residual infiltration beyond the infiltration trench. Also note that a wider range of infiltration rates have been evaluated, and a slightly higher average infiltration rate (5 in/hr) has been applied for baseline analysis in Group A soils for the net recharge benefit analysis (Group B and C soils average infiltration rates remain the same).

- ***Differentiate between infiltration and recharge:*** The proposed modifications will increase the amount of roof runoff that will infiltrate into the soil. The infiltrated water will either remain in the soil, discharge to surface water as subsurface stormflow (i.e., interflow) or percolate and recharge shallow groundwater. Soil water may eventually be lost to evapotranspiration. Both the stormflow and groundwater recharge volumes may discharge to surface water (with variable time lags) or exit the basin as groundwater flow. Increasing the amount of infiltration will have a net benefit surface water but the timing and magnitude of the surface water benefits, and benefits to baseflows, are dependent on numerous factors. The implication in the Memo is that 100 percent of the infiltration will eventually report to surface water, which is not necessarily certain.

  HDR response: Comment acknowledged, but the scope of the analysis doesn't include more advanced hydrolgeologic analysis, and the database at this higher level of evaluation doesn't support that analysis. Evapotranspiration losses are considered in the MGSFlood model runoff analysis, but for runoff generated by rooftop surfaces, that component is minimized (it is a larger component of vegetated pervious areas runoff generation). Also, the assumptions pertaining to the timing of recharge are consistent with the consumptive use assumptions on PE well withdrawals.

Specific Questions/Comments and Recommendations

Background Section

1. Some terminology is presented in this section and used in later sections should be clarified. Specifically, the terms 'recharge', 'infiltration', 'infiltration recharge', 'roof infiltration', and 'groundwater recharge' are used somewhat interchangeably and should be defined in this section.

- Recommendation: Revise text to provide clarification to the terminology, particularly with the last sentence in the first paragraph.

  HDR response: The terminology regarding infiltration and recharge has been clarified as appropriate with revisions to the technical memorandum.

2. Is there anything that can be identified with respect to the design of a typical infiltration trenches (construction details, completion depths, etc.) to indicate that infiltration into a trench will be more efficient than a typical downspout dispersion system beyond simply the size?

   - Recommendation: Provide clarification and details in the text, if possible.

     HDR response: Mason County standards provide typical sections of infiltration trenches and other infiltration BMPs for rooftop runoff downspout infiltration. Infiltration through an infiltration trench sited appropriately on subgrade soils are typically more efficient than dispersion onto surficial soils with the same area footprint for the following reasons 1) an infiltration trench is a gravel lined facility intended to intersect more permeable subgrade soils, 2) it will allow up to 2 feet depth (per Mason County standards), increasing the hydraulic gradient and infiltration discharge for a given soil permeability value on the infiltrating surface, and 3) Surficial soils typically have more fines, which tend to limit the their permeability and infiltration rates through them. The filter strip analyzed in the revised analysis demonstrates that for limited infiltration volumes for a much larger area compared to the modeled infiltration trench larger infiltration volumes.

Methods Section

1. A single soil permeability rate (infiltration rate) for each soil type was used in the analyses. It would be helpful to provide a reference for these values. Further, there is considerable variability in infiltration rates and a single value may not be a representative of actual conditions, for Group C soils in particular. The infiltration rates for Group C soils may be much lower than the value used in the analyses. For example, the range of infiltration rates for Group C soils with turf vegetation is 0.03 to 0.06 inches per hour in the Western Washington Hydrologic Model (WWHM; Appendix B of the User's Manual)[59]. These rates are much lower than the 0.5 inches per hour used in the analyses.

   - Recommendation: Consider using a range of infiltration rates to illustrate variability. Using lower rates for Group C soils would result in much larger infiltration trenches than those already indicated. Consider the feasibility and practicality of the size requirements for the infiltration trenches in till soils.

     HDR response: The revised analysis does include a larger range of infiltration values, with an average value used for the net benefit analysis. HDR certainly understands

[59] WWHM is referenced in Volume III-2.2 SWMMWW as a recommended hydrologic model.

that infiltration rates can be highly variable in a given soil group, and the range of values applied is typical in western WA for long-term operational design using factored infiltration rates compared to field-measured rates in accordance with the 2019 Ecology SWMMWW. Some classes of till soils can have smaller infiltration rates, but the average value assumed for analysis is within a range of values that can extend up to or above 0.75 in/hr. For soils much less than 0.5 in/hr, infiltration facility sizes to accommodate target infiltration rates for proposed conditions would not be practical, and roof infiltration systems in those tighter soils are acknowledged as likely not feasible.

2. The analyses base the infiltration volumes as either 95 percent or 100 percent of the annual precipitation. This may be an overestimation. Consider, for example, that: (1) rooftop runoff coefficients may range from 0.75 to 0.95 (e.g., Dunne and Leopold 1978), and (2) correction factors are recommended to account for long-term reduction in infiltration system performance (due to clogging, etc.).

    - Recommendation: Consider using reducing the volumes available for infiltration to account for the inefficiencies described above.

      HDR response: The analysis was conducted using the MGSFlood model considering the roof as a non-pollution generating impervious surface. Loss rates are built into the model. Based on the modeling results, a typical 2,800 sf (0.0642 ac) roof generates an average runoff volume of 0.335 ac-ft/yr. Considering the modeling is done for a MAP of 70 inches, the precipitation volume falling on the roof is 0.375 ac-ft/yr, so the modeled roof runoff volume is approximately 89 percent of the precipitation volume, within the range of coefficients noted in the comment. Therefore, the analysis results do account for about 11 percent loss in runoff volume compared to precipitation volume.

Results Section

1. The results that show 50 percent of the annual precipitation is recharged over the pervious portions of the lots needs further clarification. The implication that 50 percent of the total precipitation on undeveloped land is recharged to groundwater is most likely an overestimation. It is understood that the analyses for pervious land infiltration was not used in the offset calculations.

    - Recommendation: Provide clarification.

      HDR response: The analysis results for a typical parcel development (beyond the roof area analyzed separately) are output from the MGSFlood model based on the collective land cover and area assumptions as stated. That result will vary with soil group, with a group A highly pervious soil generating significantly more runoff that a group C till soil. As noted, these results are only provided as background, and would be the same under both analysis scenarios, so they do not affect the net recharge benefit analysis results.

2. The results show that large infiltration trenches are required to infiltrate the full volumes in Group C soil types. Consideration of the practicality of constructing and maintain a large

trench, as well as, the long-term performance of an infiltration trench completed in a Group C (glacial till) soil (particularly with respect to the uncertainty with Group C soil infiltration rates described above).

- Recommendation: Consider the overall impact to the net recharge calculations of either removing the Group C soils from analyses entirely or assuming only a certain percentage of the residences with Group C soils will have functional infiltration trenches.

  HDR response: This has been addressed in the analysis based on discussions between and agreed to resolution between Ecology and Mason County staff. The outcome was to evaluate group C soils under proposed conditions using a maximum area infiltration trench that Mason County is in agreement with (620 sf), and determine the expected infiltration volume where less than the target value agreed to for other soil groups (85% annual infiltration volume typical). Based on the revised modeling at 0.5 in/hr permeability, the maximum volume accommodated by that size trench per parcel is 0.230 ac-ft/yr or 69 percent of the annual roof runoff volume.

Limitations

Work for this project was performed for the Skokomish Tribe (Client), and this memorandum was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This memorandum does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

North Steamboat Project

PROJECT DESCRIPTION

Description

The Steamboat Island Peninsula has many small first order streams that originate from wetlands and flow to surrounding marine waters. On the north end of the peninsula, just south of the Carolyn Beach Homeowners Association water system, is a recently formed pond (Figure 1). The pond is on a private parcel that also contains a residential home. The pond appears to be a recent impoundment, with aerial imagery as recent as 2011 indicating timber and a field in the location of the current pond.

The pond is part of a sensitive groundwater zone with hydric soils (Bellingham silty clay loam). It's likely that the pond results in slow recharge back to the local aquifer and may be in connection with an intermittent stream that drains to the west in Eld Inlet.

The proposed project would increase the elevation and spatial extent of the pond, thereby increasing hydraulic gradient and increasing infiltration of water into the local aquifer. With the existing condition, that extra water would be presumably draining to the local intermittent stream. The pond could potentially be increased by two feet without causing flooding off of the current parcel.

Qualitative assessment of how the project will function.

A feasibility study would need to investigate the cause and use (if any) of the impoundment by contacting the private landowner. The feasibility study would evaluate the hydrologic accounting of the existing and proposed condition to determine if there is enough of a net gain in local groundwater and streamflow gain (during the low flow period) to warrant the project.

The project could be increased from an elevation of 78 to 80 ft in elevation without affecting other parcels (Figure 1)

Conceptual-level map and drawings of the project and location.

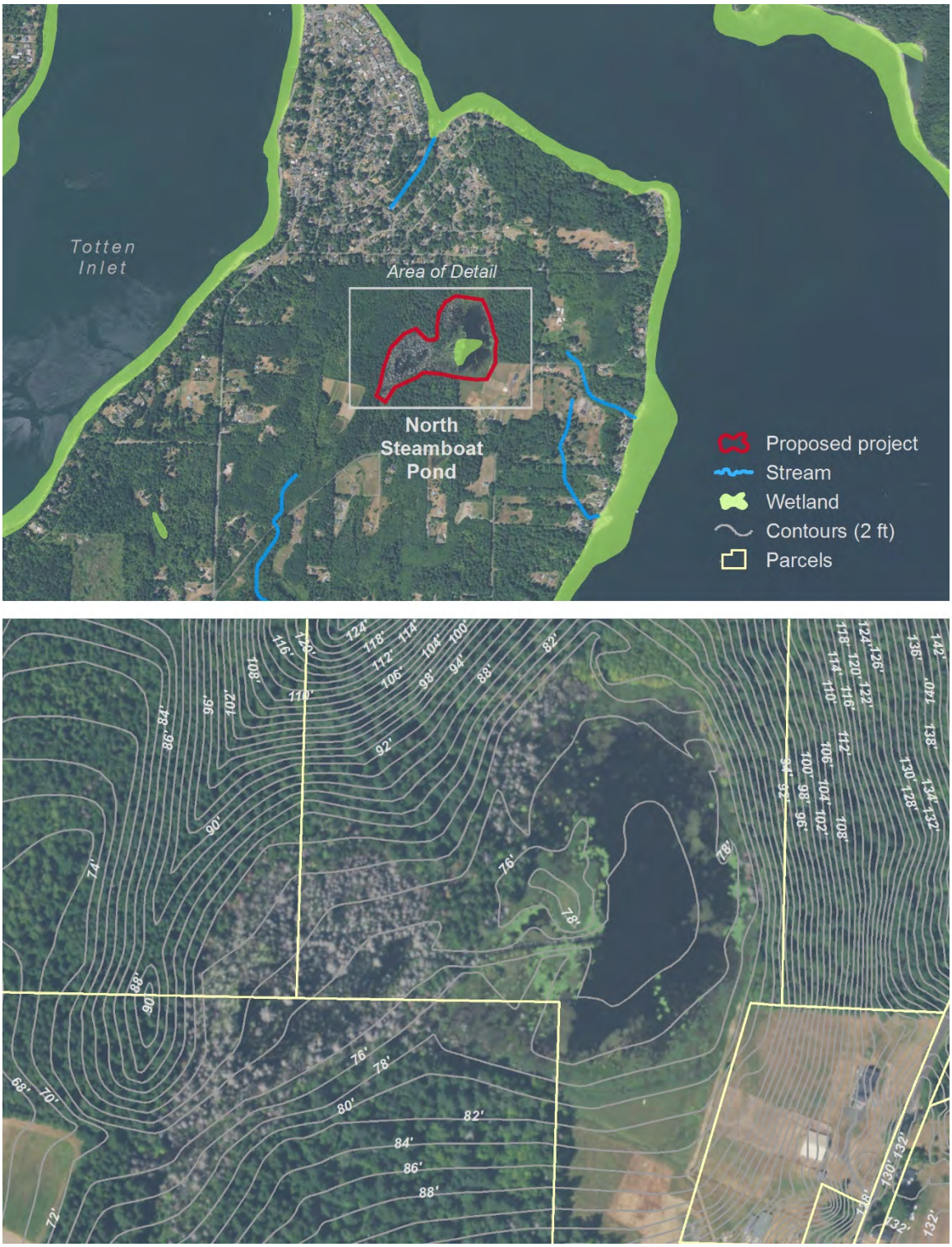


Figure 1. North Steamboat Pond.

Description of the anticipated spatial distribution of likely benefits

The Project will increase local aquifer storage and may increase streamflow in intermittent streams to the north, south and east (Figure 1).

Performance goals and measures.

The performance goals are to increase the pond elevation by up to two feet in elevation during the wet season, This performance goal could be measured with a staff gage in the pond. Increasing summer baseflow in the surrounding intermittent streams during the summer low-flow period is also a performance goal, but would be more difficult to discern, given seasonal and annual variation in flow. If pursued, measurement of this performance goal would require pre-project baseline and post-project monitoring for a sustained period of time to detect an increase in flow, if it occurred.

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

No salmonid species appear to use the streams near the proposed project (WDFW Salmonscape 2020), presumably because of the intermittent nature of the streams. The streams may provide seasonal habitat for estuarine fish species and seasonal pocket estuaries for use of multiple aquatic species, including outmigrating subyearling Chinook and chum salmon.

Identification of anticipated support and barriers to completion.

The proposed Project is located on private land, and any would therefore require landowner permission, conservation easement, or land acquisition from the private landowner.

Potential budget and O&M costs.

Total costs are anticipated to be less than $1,000,000. Costs would include the potential need for land acquisition, and installation of a water control structure or berm.

Anticipated durability and resiliency.

The project would have lasting benefits and would not require minimal operation and maintenance, once it is established.

Project sponsor(s) (if identified) and readiness to proceed/implement.

The project sponsor would be the Thurston County. Thurston County would begin Project implementation with a feasibility and design study.

References

WDFW (Washington Department of Fish and Wildlife), 2020. Salmonscape mapping of fish distribution. Available at: http://apps.wdfw.wa.gov/salmonscape/

Skookum Valley Railroad Culvert Blockages

PROJECT DESCRIPTION

Description

Skookum Creek is a tributary that flows into Little Skookum Inlet in South Puget Sound. Skookum Creek and its tributaries support chum and coho salmon, as well as a prolific population of sea run cutthroat trout. Steelhead are present but rare. Multiple tributaries to Skookum Creek are blocked by culverts that run under the railroad on the north side of the valley. This railroad is called the Puget Sound and Pacific Railroad (PSAP), and it is owned by Genesee and Wyoming (Darien, Connecticut). Replacing those culverts could open up as much as 5 miles of spawning and rearing habitat in the Skookum watershed.

Qualitative assessment of how the project will function.

This is a proposal to replace a minimum of 8 culverts, perhaps as many as 15 culverts along the PSAP railroad that are full or partial barriers to upstream fish passage.

Tasks:

- Survey length of railroad through Skookum Valley to fully inventory all culverts.
- Field verify amount of available fish habitat upstream of blocking culverts. This will also involve field verification of stream location and correction on WDFW maps.
- Reach out to Genesee and Wyoming to ask for their cooperation to replace all blocking culverts.
- Set in place a culvert replacement schedule and plan with Genesee and Wyoming (PSAP).
- Work to ensure that the culvert replacement schedule is followed.
- Work with WRIA 14 Lead Entity on prioritization schedule for replacement based on their comprehensive barrier prioritization tool.

Conceptual-level map and drawings of the project and location.

See map on the next page of blocking culverts under the PSAP Railroad. The map was generated from the WDFW fish passage map and then annotated.

Listed below are the culvert ID numbers, as listed on WDFW's fish passage map. The number of miles of fish habitat upstream that would be accessible by fish, if these culverts were open to fish passage, has been estimated. Individual reports for each listed culvert can be accessed by clicking on the culvert location in the fish passage map.

MC263- ~2,400 ft

MC264- ~12,000 ft

MC265- ~1,200 ft

MC266- ~4,000 ft

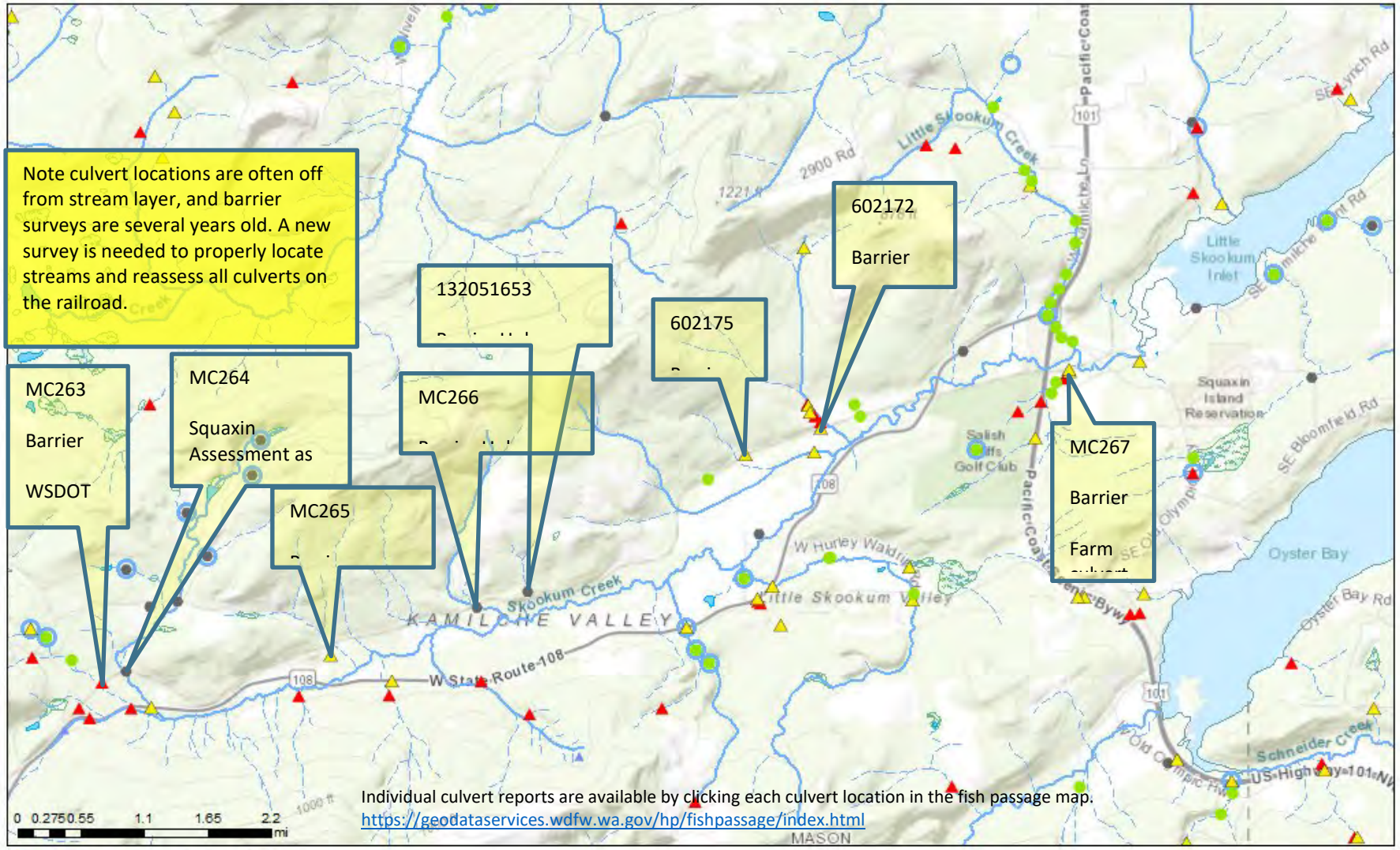
132051653- Unknown

602175- ~3,200 ft

602172- ~3,000 ft

MC267- ~1,800 ft

Total = ~27,600 or 5.2 miles of fish habitat could be made accessible again.


Note culvert locations are often off from stream layer, and barrier surveys are several years old. A new survey is needed to properly locate streams and reassess all culverts on the railroad.
MC263
Barrier
WSDOT
MC264
Squaxin
Assessment as
MC265
MC266
132051653
602175
602172
Barrier
MC267
Barrier
Farm
Individual culvert reports are available by clicking each culvert location in the fish passage map.
https://geodataservices.wdfw.wa.gov/hp/fishpassage/index.html
Washington State Fish Passage
Not a barrier
Partial Fish Passage Blockage
Total Fish Passage Blockage
Barrier, Unknown Percent Passable
Diversion
Natural Barrier - Verified
Unknown
Corrected Barriers
NHD Coastline
NHD Rivers
Stream / Perennial
Intermittent / Ephemeral
Canal, Ditch
Pipeline
Connector
NHD Waterbody
Lake, Pond, Reservoir
Swamp, Marsh
Ice Mass
Exported: 11/17/2020 2:11:22 PM

Description of the anticipated spatial distribution of likely benefits

Access to tributaries on the north side of Skookum Valley, from headwaters to Little Skookum Inlet on Puget Sound.

Performance goals and measures.

Number of miles of habitat made accessible to anadromous fish, as each culvert is removed.

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

The Washington Department of Fish and Wildlife has identified that coho salmon, chum salmon, steelhead trout, and coastal cutthroat trout have spawning populations in Skookum Creek (WDFW Salmonscape 2020. Steelhead may be present, but are rare. The extent of fish depicted in Salmonscape is an underestimation.

Identification of anticipated support and barriers to completion.

It is likely that there will be broad support for a project like this in the WRIA 14 WREC Committee, as well as generally. The most difficult challenge in this project would be acquiring the cooperation of the Genesee and Wyoming Railroad Company.

Potential budget and O&M costs.

Costs are estimated to be between $1-5 million, depending on design.

Anticipated durability and resiliency.

Design life of these culverts would probably be at least 50 years.

Project sponsor(s) (if identified) and readiness to proceed/implement.

The project sponsor would be the SIT. The SIT would begin Project implementation with a feasibility and design study.

References

WDFW (Washington Department of Fish and Wildlife), 2020. Salmonscape mapping of fish distribution. Available at: http://apps.wdfw.wa.gov/salmonscape/

WDFW (Washington State Department of Fish and Wildlife). 2020. Fish passage map. https://geodataservices.wdfw.wa.gov/hp/fishpassage/index.html

Skookum Valley Ag Project

PROJECT DESCRIPTION

Description

Skookum Creek is a tributary that flows directly to Little Skookum Inlet and is important for supporting coho salmon, chum salmon, winter steelhead, and coastal cutthroat trout. Habitat in Skookum Creek has been simplified, in part, due to habitat simplification from agricultural land use within the Skookum Valley floodplain. Some reaches of the Creek have been moved to the edge of the valley wall to maximize agricultural production, and not allowed to meander through its channel migration zone. This has resulted in channel incision (streambed downcutting) loss of side channels, loss of off-channel habitat, and reduced floodplain connectivity.

The proposed Skookum Valley Ag Project (Project) will re-align a reach of the stream channel that is currently confined to the valley wall, back into its historical alignment and natural meander pattern. This Project is intended to be the first step in larger scale realignment into historical alignment and allowed to meander through its channel migration zone.

Qualitative assessment of how the project will function.

The proposed project will increase stream length from 920 feet to 1530 feet, an increase of 610 feet (Figure 1). The re-alignment will include instream structures (e.g. large woody debris and engineered log jams) that) that will increase habitat complexity. These structures will contribute to bedload retention and will contribute to reduction of channel incision, in combination with other future projects. Riparian vegetation will be established around the new stream alignment.

Conceptual-level map and drawings of the project and location.

Figure 1. Skookum Valley Ag channel relocation.

Description of the anticipated spatial distribution of likely benefits

The Project will increase channel length in Skookum Creek by 610 feet. This will increase usable aquatic habitat.

Performance goals and measures.

The performance goals are to increase stream length by 610 feet with an appropriate channel geometry, large woody debris density, pool density and residual depth, stable banks, and riparian zone establishment. Specific metrics for these attributes will be defined based on the restoration design.

Descriptions of the species, life stages and specific ecosystem structure, composition, or function addressed.

The Washington Department of Fish and Wildlife has identified that coho salmon, chum salmon, steelhead trout, and coastal cutthroat trout have spawning populations in Skookum Creek (WDFW Salmonscape 2020). WDFW (2020, 1975).

Skookum Creek has several habitat factors that are limiting to fish productivity, including low summer base flow, high summer water temperature, suboptimal large woody debris and pool density, and spawning gravel quality, This Project will contribute to addressing these factors at the reach scale. The increased channel length and re-alignment may allow for more groundwater contribution. The presence of the impoundment directly to the northwest of the proposed alignment would provide a hydraulic gradient to push cool groundwater into this stream alignment. The installation of large woody debris and establishment of riparian vegetation will contribute to optimal

large woody debris density, pool density, and will create the hydraulic complexity to sort sediments, leading to pockets of suitable spawning gravels.

Identification of anticipated support and barriers to completion.

The proposed Project is located on land previously acquired by the Squaxin Island Tribe (SIT). The SIT is supportive of this Project.

Potential budget and O&M costs.

The total costs of construction, engineering, permitting, and cultural assessments are estimated to be <$1.0 million, based on an order of magnitude cost estimate (includes engineering and construction costs).

Anticipated durability and resiliency.

The project would have lasting benefits and would not require operation and maintenance, once it is established.

Project sponsor(s) (if identified) and readiness to proceed/implement.

The project sponsor would be the SIT. Project implementation would begin with a feasibility and design study.

References

WDF (Washington Department of Fisheries), 1975. "A Catalog of Washington Streams and Salmon Utilization, WRIA 15." Accessed at: https://www.streamnetlibrary.org/?page_id=95.

WDFW (Washington Department of Fish and Wildlife), 2020. Salmonscape mapping of fish distribution. Available at: http://apps.wdfw.wa.gov/salmonscape/

Water Right Screening Methodology

TECHNICAL MEMORANDUM

To: Department of Ecology WRIA 14 Watershed Restoration and Enhancement Committee

From: Peter Schwartzman, LHG

Burt Clothier, LHG

Re: Water Right Screening Methodology

Date: December 22, 2020

This technical memorandum documents the methodology used to screen and select water rights for potential use to support watershed restoration and enhancement projects in the Kennedy-Goldsborough Basin, Water Resources Inventory Area (WRIA) 14. This work was completed by Pacific Groundwater Group (PGG) on behalf of the WRIA 14 Watershed Restoration and Enhancement (WRE) Committee (Committee) and the Department of Ecology (Ecology). This work was performed under Ecology Contract Number C1700029, Work Assignment PGG104.

Under RCW 90.94.030, Ecology has the responsibility to convene WRE committees and prepare WRE plans for eight WRIAs in the Puget Sound and Hood Canal areas. The general purpose of the plans is to document potential offsets to projected depletion of instream flows resulting from new, permit-exempt domestic well uses in the WRIAs over the next 20 years.

To support development of the WRE plan for WRIA 14, PGG assisted the Committee in selecting a focused set of water rights for further review to assess potential benefits and their suitability in offsetting impacts from permit-exempt wells on instream flows. This memorandum outlines the methodology used to develop the focused list of water rights.

PROCEDURE

Ecology staff queried their Water Rights Tracking System (WRTS) database and provided tables and associated GIS data of all active water rights within WRIA 14. Inactive water rights (e.g., previously approved changes, cancelled or withdrawn applications) were excluded from the data provided by Ecology. Water right claims and pending applications for new water rights or water right changes were also removed during the screening process.

The provided GIS data included the mapped place of use and point(s) of diversion or withdrawal locations, where available. Where Ecology did not have detailed location information for points of diversion or withdrawal (or such information has not yet been added to their GIS dataset), the default location is generally the nearest quarter or quarter-quarter section, based on the water right file information.

The Committee identified several criteria for identifying potential water-rights where acquisition would have the greatest benefit:

- Surface-water sources were considered to be more useful than groundwater sources, as they provide direct improvement to streams.
- Preferred water-right purposes include irrigation (IR) and commercial/industrial (CI). Later in the process, PGG introduced consideration of domestic multiple (DM) water rights, since nearby municipal water systems (e.g. Shelton) potentially could have capacity to supply smaller Group A or B water systems. All other domestic categories (domestic single and domestic general) and municipal rights were excluded from the analysis based on the expectation that these rights would be unavailable for mitigation or too small (unless otherwise identified by the Committee).
- The Committee identified five priority subbasins (Goldsborough, Mill, Hood Canal, Oakland and Skookum) which include 11 key creeks: (Mill, Gosnell, Sherwood, Schumacher, Skookum, Goldsborough, Cranberry, Johns, Deer, Alderbrook and Twanoh). Prioritization was based on consideration of habitat (Salmon tier "A" and Salmonscape miles) and streamflow regulation (instream flow requirements and closures).

FINDINGS

Approximately 400 active water right files were identified within the five priority subbasins. PGG prepared histograms that sorted IR and CI water rights by quantity towards meeting the desired mitigation offset.

- Surface-water rights were initially sorted by instantaneous quantity (Qi). Among a total of 165 rights representing 672 cfs (159 IR and 6 CI rights), 70 had Qi less than 0.03 cfs and 150 had Qi less than 0.5 cfs. Five water rights were identified with Qi greater than 1 cfs, of which 3 are associated with CI (gravel mining/processing and timber processing) and two are associated with IR.
- Surface-water rights were also sorted by annual quantity (Qa); however, 87 of the 165 surface water rights had no stated Qa, For these cases, PGG estimated Qa based on stated irrigated acreage (77 of 87 rights had irrigated acreage listed) and an assumed irrigation duty of 2 feet. Out of 155 water rights with stated or calculated Qa totaling 4,053 acre-feet/year (af/yr), 96 had Qa less than 10 af/yr and 114 had Qa less than 20 af/yr. Sixteen "large" (>80 af/yr) rights were identified, of which 15 are associated with IR and one is associated with CI.
- Groundwater rights were sorted by annual quantity (Qa). Among 33 IR rights and 16 CI rights (a total of 49 rights representing 24,327 af/yr), 21 had Qa less than 10 af/yr and 30 had Qa less than 20 af/yr. Twelve "large" (>80 af/yr) rights were identified, of which 10 are associated with CI (timber processing, shellfish) and two are associated with irrigation.

In order to identify higher-value water-right acquisition possibilities and provide a more manageably sized list, water rights with a Qa of less than 10 af/yr were removed. This arbitrary cut-off resulted in reducing the list from 400 to 99 water rights with a combined allocated volume of 28,021 af/yr (24,242 from groundwater and 3,778 from surface water).

Table 1 lists the water rights in the five preferred subbasins that could potentially be converted, purchased, or retired as mitigation water, while **Table 2** is a general summary of the focused water right list. **Table 2** provides summed (total) Qa's for the water rights listed in **Table 1** for each priority subbasin, but does not provide summed Qi's because Qi is often not representative of the actual volume of water allocated. Some surface-water rights do not have Qa's listed (**Table 1**); therefore, these rights are not included in the totals on **Table 2**.

These summaries should not preclude the Committee from pursuing specific water rights in other subbasins that could be identified in the future by other means. Therefore, moving forward, the Committee should investigate the availability of rights in the focused study area as well as in the broader WRIA if specific rights are identified. In addition, the Committee may wish to investigate expected Qa for surface-water rights without specific Qa allocations.

It is understood that the offset credit from retiring or increasing the efficiency of IR rights is limited to the associated reduction in *consumptive* use rather than the reduction in *total* use. Similarly, CI water rights were recognized to have both consumptive and non-consumptive portions, of which only consumptive portions could be used for mitigation offsets. Some of the larger water rights listed in the attached tables are for CI purposes associated with timber and sand & gravel operations, and may include a significant portion of non-consumptive use.

The Committee provided input on known water rights. Several IR rights had been acquired by the Squaxin Tribe and were no longer available for mitigation. PGG used satellite imagery to assess evidence of irrigation for the largest 13 IR rights (50-200 irrigated acres) within the five preferred basins, and noted that while most had cleared (or potentially cultivated) land nearby, only four (two golf courses and two agricultural properties) showed observable evidence of irrigation. Committee members agreed that windshield or desktop surveys would better confirm the occurrence of active IR water rights. Thurston County staff performed a limited windshield survey and identified 14 IR rights in Thurston County (Kennedy subbasin) that appear to be in current use. The Squaxin Island Tribe performed additional desktop aerial surveys which resulted in a "targeted" list that the Committee has identified will be a priority for future investigation or acquisition.

Finally, PGG used GIS analysis to identify which smaller DM public water systems are located within or near the Shelton water system service area, with the idea that smaller systems could potentially be sourced from the Shelton system to make their water right available for mitigation offset. PGG identified 27 PWS located within a mile of the Shelton service area. The closest ones have relatively small water rights (Qa <40 af/yr). Larger systems had Qa's of 166 af/yr (2,700 feet away), 160 af/yr (a mile away) and 90 af/yr (4,900 feet away). The Committee considered it unlikely that these water systems would be able to "hook up" to Shelton and operate under their water right.

Source Substitution on Schneider Creek

Project Name:	Source Substitution on Schneider Creek (TC Project #143)
Project Location:	Kennedy Creek management unit in northwestern Thurston County. See Figures 1 and 2. *Lon. -123.05114 Lat. 47.09222*
Project Description:	☑ Water Right Acquisition ☑ Non-Acquisition Water Offset ☐ Habitat/Other **Project Overview** Conceptually this project involves the purchase and retirement of existing irrigation water right certificates, replacement with new irrigation source well(s) under a new water right permit, irrigation efficiency improvements, and ditch removal with stream restoration. See Figures 1 and 2 for maps of project details: • Water right certificates for consideration for possible full/partial retirement as part of a source-substitution project. • Future well location(s). The hypothetical new irrigation source wells would be located near well AKR885 (log attached) to substitute for part of the valid portion of these certificates. • WSDA pasture where irrigation was observed in the field, and where the proposed surface water rights' Place of Use may apply. • MODFLOW groundwater streamlines (steady-state) from the hypothetical well(s) pumping 300gpm. • Potential stream restoration zone along a Schneider Creek tributary. The current ditch draining wetlands could be replaced with a re-meandered stream approximately replicating the historic stream channel. The project involves a cluster of pastures on the north side of US101 along Schneider Creek that collectively appear to be associated with five certificated surface water rights (See Figure 1). The amount of potential water available is sizeable: +1.4cfs irrigation combined, with water rights that appear to be at least

partially active. Field windshield screening indicated they have some visible irrigation works. These five certificates are as follows:

1. **Surface water certificate S2-*10859CWRIS** is the most significant in terms of the water it could provide – namely 1 cfs and enough water to irrigate 100 acres. Part of this use was field-verified in July 2020 by observing irrigation works and apparent be irrigation of 40 acres. The use period for this water right is April 15 through October 1.
2. **Surface water certificate S2-*09745CWRIS** is an irrigation-only water right with an April 15 through October 1 use period.
3. **Surface water certificate S2-*10229CWRIS** has irrigation and domestic purposes of use, and the use period for the irrigation portions end October 1st.
4. **Surface water certificate S2-*02995CWRIS** has irrigation and domestic purposes of use, and the use period for the irrigation portions end October 1st.
5. **Surface water certificate S2-*02996CWRIS** permits domestic water-use only.

The attached copies of water right certificates indicate original authorizations to irrigate up to 150 acres of land. However, in Washington State, water rights are subject to a 5-year relinquishment standard and only remain valid to the extent they are thus put to use. Assuming an irrigation duty of 1.3 feet of water per season (the pasture annual irrigation rate for Shelton listed in the Washington Irrigation Guide), 150 acres of irrigated water use would require about 195 afy (acre-feet per year) of water towards a maximum of approximately 700 afy. However, due to Washington State's water right relinquishment standard, it is quite possible only a portion of that quantity is still valid.

The project element involving ditch removal and stream restoration is highlighted on Figure 2. The ditched part of the wetlands on the north tributary of Schneider Creek is about 3,400 feet long. The current ditch drains wetlands, but that could be replaced with a re-meandered stream approximately replicating the historic stream channel, with significant habitat improvements.

Site Hydrogeology

Hydrogeology in the project vicinity has not been extensively studied. Thurston County has developed a groundwater flow model across the project area based on

	geologic mapping by the WA Geological Survey, and this is generally calibrated to approximate well water levels and streamflows. However, many questions remain. The site-specific hydrogeologic information used in this project summary comes from three main well logs (see attachments): • **Well AGK602 – Holiday Valley Estates (1968).** This older Holiday Valley well produced 233 gpm from torch-cut slots, with about 22 feet of drawdown over 4 hours, from a sand and gravel unit between 116-127 feet below ground surface. The well encountered several layers that appear to be aquitards. Please see the attached well log, and Figure 2 for the well location. • **Holiday Valley Estates (1981).** This 10-inch diameter cased-and-screened production well was drilled to 133.5 feet and terminated at basalt bedrock. From 117 to 133.5 feet below ground, in sand and gravel immediately above bedrock, the well produced 200 gpm with 26 feet of drawdown during a 4-hour test from two 5-foot screened sections. The well encountered several layers that appear to be aquitards. Please see the attached well log, and Figure 2 for the well location. • **Well AKR885 – Vaugh Litchfield (2004).** This 6" ID open pipe domestic well was drilled to 218 feet near Schneider Creek. The well produced 30 gpm during a one-hour open-pipe airlift test (i.e. no well screen, no measured drawdown). The well encountered several layers that appear to be aquitards. Please see the attached well log, and Figure 2 for the well location. In summary, according to testing performed at the time of drilling, yields from two wells were at/over 200 gpm, suggesting very productive rates were possible from the confined aquifer at the Holiday Valley water system wells. Well AKR885 produced at least 30 gpm from a short open section and no screen. These results suggest the following: • Assuming that even higher production rates will be possible with future wells, target irrigation flowrate of 300 gpm may be achievable using one to three new source wells (groundwater flow modeling assumed this rate in Figure 2). • The target aquifer is confined. Long-term well performance should be evaluated, including seawater intrusion and effects on other nearby wells.

- Induced stream baseflow losses may be reduced near the new irrigation wells because confining layers exist. However, some stream baseflow losses may occur in more distant areas yet to be determined.
- Current MODFLOW modeling suggests that source waters feeding the wellfield are from upland areas south of the wells (see Figure 2), but this must be evaluated during the project.
- Modeled steady-state groundwater elevations with a pumping rate of 300 gpm are near/below sea level. Although the proposed pumping will be seasonal, induced saltwater intrusion and effects on nearby wells' water levels should be evaluated.

Background

Substituting a deep GW source for the current surface water irrigation will lessen the hydrologic impact to the stream overall (assuming that the deep aquifer primarily discharges to seawater). However, there are legal hurdles associated with this approach. Chapter 173-514 WAC places a seasonal closure on Schneider Creek from May through October. Although it has yet to be evaluated, it is quite possible that groundwater pumping associated with a new irrigation source would impact Schneider Creek baseflow. And, since the effects of seasonal pumping would take some time to work their way through the hydrogeologic system, under that scenario the effects of pumping on Schneider Creek would not cease on October 1st. At least the largest of the 5 subject water rights, S2-*10859CWRIS, has an October 1st cut-off date, so any effects due to groundwater pumping of that water right would spill over past that water right's authorized use period. Some of the other water rights may face similar hurdles, but more research would be needed to make that determination.

In years past it might have been possible to mitigate impacts during the month of October more creatively. However, the 2015 Washington State Supreme Court Foster decision has changed the legal framework for source substitution projects. Due to the Foster decision, it is quite possible the only way to deal with the month of October would be to have a situation where there are no adverse impacts due to pumping during that month.

	At least part of the solution to reducing or eliminating potential October impacts could involve relinquishment of the water rights other than S2-*10859CWRIS. More research is needed, but if any of those water rights permit water use throughout October, those rights could be used to cover at least part of the late-season impacts. However, a cursory look at the other water rights suggests that only one, S2-*02996CWRIS, does not have an October 1st cutoff, and the Qi associated with S2-*02996CWRIS is only 0.02 cfs. Another potential option for reducing or eliminating October impacts would involve pairing this source substitution project with some sort of flow augmentation project or perhaps an MAR project that would somehow utilize water that is available at some other times of year to then provide an offset during October. However, this option may be cost prohibitive. Finally, there is the possibility that the Washington State legislature could change the law with a so-called "Foster fix, to allow more latitude with regard to source exchange projects in the future. **Summary of Major Project Elements** • Feasibility Study to determine what type of project is viable, including the following elements: o Assessment of the extent and validity of the 5 certificates. o Determine what fraction of the valid part of these rights can be retired. o Install, aquifer test and model the effects of source substitution well(s). o Determine the irrigated area and the efficiency of the new irrigated area for supply by the new wells. o Negotiate the purchase, new irrigation configuration and partial retirement options for the five water rights. o Determine the impacts to nearby streams and any resulting mitigation requirements. o Evaluate the engineering feasibility and cost options for the project. • Following approval of a feasible option: o Obtain a groundwater withdrawal permit(s) from Ecology o Provide the production wells, irrigation works/modifications, utility connections and permits. o Implement any permit-required mitigation. o Implement the ditch removal and stream restoration elements of the project.

Description of Benefits:	1. **Summary of potential water offset benefits from the project: (**195 afy) x (0.33 irrigation efficiency improvement/retirement fraction) = (64 afy water offset benefit), depending on multiple factors. This assumes the benefit incorporates any mitigation required for the new groundwater permit. Water offset benefits may be smaller if groundwater permit mitigation complexities emerge. 2. **Increased streamflows on Schneider Creek.** 3. **Improvement in stream function for fish habitat.**
Is Water Quantity a Limiting Factor In this Subbasin?	Unknown.
Location & Spatial Extent of Benefits:	Flows could be increased in Schneider Creek from the area of stream restoration, through the area of the five water rights "Points of Diversion", then downstream to its confluence with Totten Inlet.
Anticipated Water Offset (if applicable):	**Summary of total potential water offset benefits** from the project: approximately 64 afy, depending on multiple factors.
Project-Type Specific Information	
Estimated Project Cost:	Several hundred thousand dollars, at minimum, for new source wells, engineering, permitting and new infrastructure.
Performance Goals & Measures:	Weather and water quality monitoring is already performed by Thurston County; however, additional monitoring is likely to be needed. (See: https://www.thurstoncountywa.gov/sw/Pages/monitoring-dashboard.aspx).
Anticipated Local and Partner Support & Barriers to Completion:	1. The Squaxin Island Tribe has indicated that it may support this project. 2. This project depends heavily on achieving sufficient new well yields. Significant questions exist regarding pumping well production. 3. Some form of required mitigation for the new groundwater permit is likely.

	4. Modeled steady-state groundwater elevations with a pumping rate of 300 gpm at the proposed new wellfield are near/below sea level. Although the proposed pumping is expected to be only seasonal, induced saltwater intrusion and effects on nearby wells' water levels should be evaluated.
Project Sponsor, Implementation Start Date and End Date:	Thurston County may sponsor this project, depending upon Feasibility Study outcomes. The project will need a thorough assessment of well yields, a Report of Examination from a CWRE, plus additional hydrogeological, legal, financing and engineering feasibility studies.

Steamboat Middle Storage Enhancement and Habitat Improvements

Project Name:	Steamboat Middle Storage Enhancement and Habitat Improvements (Thurston County ID 110)
Project Location:	Project is in WRIA 14 on the Steamboat Island peninsula, northwest of the City Olympia, north of US 101 and just south of Steamboat Island Road NW (see Figure 1). Kennedy Creek management unit. The project includes unnamed tributary streams feeding Young Cove. *Longitude: -122.9894, Latitude: 47.1208*

Project Description:	☐ Water Right Acquisition ☑ Non-Acquisition Water Offset ☐ Habitat/Other The Steamboat Middle project consists of expanded water storage in an existing forested/non-forested wetland. The project would expand water storage in a low-lying area between elevation 114 and 118 as depicted in Figure 1. Blue shading indicates the potential extent of additional water storage to max. elevation 118 (datum: NAVD88). Some additional habitat may be created during this project. This project concept envisions the retention an additional 28-121 acre-feet of wet season precipitation, of which half (14-61 acre-feet) would likely provide a water-offset benefit by seeping back into the unnamed tributaries feeding Young Cove. We assume that the remainder would be lost to evapotranspiration. The project area is very flat, with two main basins, each with a differing base elevation. The project area has existing wetlands and hydric soils, likely overlying glacial till based on nearby geology (see Attachment A Well Logs). All elevations are referenced herein using the NAVD88 datum and Thurston County's 2011 LiDAR data. Assuming a low dike and gate/outfall to sustain higher water levels up to approximately elevation 118, two configurations of the water storage area can be conceptually evaluated as follows: 1. At a **"Low Water Stand"** the northern basin could retain about one additional foot of water depth within the existing ponded area, for about 28 acre-feet of additional storage.

2. At a **"High Water Stand"** the southern basin would also fill, to a depth of 1.11 feet, on average. At a "High Water Stand," the northern basin depth would increase to a depth of 2.35 feet, on average. Both average depths assume a maximum of 118 feet NAVD88, as controlled by a dike and gate with an outfall structure.

Table 1 Summarizes these features:

	Flooded Acres *	Average Water Depth – Low Water Stand (ft)	Average Water Depth - High Water Stand (ft)
Northern basin	28	1	2.35
Southern basin	50	0	1.11
	Storage acre-feet	28	121.3
	Water Offset Benefit With 50% ET losses	14	60.65

Site hydrogeology

a. **Geology:** probably shallow outwash gravels over glacial till.
b. **Depth to water:** ground surface – wetlands exist.
c. **Stream connection to aquifer:** Partial connection - Project-level calculations required. LiDAR flown in June 2011 did not indicate flow in the two unnamed tributary streams draining the project area. However, DFW modeling indicates fish presence is likely in both small tributaries.
d. **Estimated fraction of recharge that discharges to nearest streams:** Assumed 50% of additional storage reaches the two unnamed tributary streams as new base flow. Project-level calculations required.
e. **Initial estimate of streamflow benefit timing:** Project-level calculations required
f. **Suggested Plan benefit estimate:** 14 to 61 afy, based on 50% of storage reaching both streams.
g. **Probability of benefit:** High (i.e. use 100% of the calculated 14 to 61 afy benefit)
h. **Probability of construction:** Moderate – land access and permit questions will need further feasibility assessment.

	i. **Surface water source evaluation:** None yet - Project-level calculations required j. **Dates when streams are closed:** Discharges to salt water – closure status unknown k. **What type of water rights would need to be acquired to provide water from that source?** Unknown l. **What stream reach likely would benefit from this project?** Unnamed tributaries to Young Cove. m. **What is the anticipated benefit to that reach?** 14 to 61 afy additional streamflow, including flow from groundwater seepage. n. **What fish species will benefit?** WDFW data list fall chum salmon observed and resident coastal cutthroat presumed in the streams feeding Young Cove. MODFLOW groundwater flow modeling exists across this project site and can be used to test project concepts. In addition, significant LiDAR data are available for project assessment (one-foot LiDAR topography).
Description of Benefits:	• Conceptually, this project could provide infiltration of 14 to 61 afy water offset. • These benefits would require quantification as part of a Feasibility Study. • The project would improve streamflow later in the year, i.e. groundwater seepage that would provide stream base flow. • The length of additional wetted channel and volume of water offset would require calculation during the Feasibility Study process, and monitoring during operation. • Habitat could be incrementally improved. • Wetlands may expand as a result of the additional water storage area. • Habitat benefits/protection may be part of the project.
Is Water Quantity a Limiting Factor In this Sub-basin?	Unknown. Habit assessments would be required.
Location & Spatial Extent of Benefits:	Unnamed tributaries to Young Cove.
Anticipated Water Offset (if applicable):	14 to 61 acre-feet per year are anticipated. The WRIA 14 Committee conservatively claimed 14 AFY as a water offset to include in the plan.

Project-Type Specific Information	
Estimated Project Cost:	Feasibility study costs of ~$250,000, plus capital cost of several hundred thousand dollars for civil works, and the costs for land access rights or ownership. Operations & Maintenance costs expected. A cost estimate of $1 million is included in this watershed plan for planning purposes.
Performance Goals & Measures:	Streamflow, habitat or groundwater monitoring would likely be required for this project.
Anticipated Local and Partner Support & Barriers to Completion:	Unknown. Obstacles may include costs for land or rights to inundate lands adjacent to the project; conversely, landowner willingness to allow inundation may reduce the feasible water offset quantity.
Project Sponsor, Implementation Start Date and End Date:	Not yet sponsored.

Summit Lake Alternative Water Supply and Use

Project Name:	Summit Lake Alternative Water Supply and Use (TC Project #76)
Project Location:	Kennedy Creek management unit in northwestern Thurston County. See Figure 1. *Summit Lake Lon. -123.1064 Lat. 47.0538*
Project Description:	☑ Water Right Acquisition ☑ Non-Acquisition Water Offset ☐ Habitat/Other Conceptually this project involves determining alternative solutions for safe water supply to the Summit Lake community. It involves a substantial portion of the lakefront residents of south shore drive along Summit Lake currently using surface water from the lake itself. An alternative water supply could supply water and reduce the use/demand for 235 homes on south Summit Lake Shore Drive South. One potential source of water could include new source wells installed in aquifer material near the Boy Scouts of America Camp Thunderbird. Well yields of 10 gpm to 30 gpm have been identified in at least five existing wells – including the Camp Thunderbird well (rated by WA DOH as capable of serving 9,000 gpd). This could require obtaining a new water right in compliance with Chapter 173-514 WAC, which would be difficult with the current instream flow rules because the location is in direct hydraulic continuity with Kennedy Creek. There may also be conflicting legal concerns with obtaining a water right as a result of the Washington State Supreme Court Foster decision. Another potential source of water could be from piping water from a public water system located outside the Summit Lake drainage. This option could be more expensive but provide a more reliable water source and flow benefit to Kennedy Creek. Other water sources could also be explored, should the opportunity become available. A net water offset benefit could occur in two ways: 1) by limiting irrigation for homes newly connected to a new water supply, and 2) by retiring some non-certificated permits and purchase/retirement of some certificated water rights. Finding an alternative to surface water withdrawals for a portion of the Summit Lake community could result in the retirement of surface water withdrawal permits for homes with newly available supplies. Some of

	these permit revocations may include the 193 temporary withdrawal permits. These permits date to after 1992, when Ecology agreed with Thurston County to temporarily issue new permits for indoor water use only, with the condition that these rights be relinquished when a public water supply became available. Finding an alternative, safe water supply would reduce public health risk for residents and clarify uncertain permitting, including those undeveloped lots surrounding Summit Lake that are currently without access to water. **Background** The approximate altitude of the lake is 460 feet. The drainage is steep and rugged with ridges as high as 1200 feet and slopes up to 80 percent. There are numerous springs and intermittent streams that flow into the lake. The outlet at the west end of the lake is controlled by a dam with overflow flash boards, regulated under a superior court order issued under Chapter 90.24 RCW, which allows lake overflow to feed Kennedy Creek. Summit Lake is one of the deepest lakes in Thurston County, with a maximum depth of 30 meters (100 feet). Groundwater is difficult to find in the thick basalts surrounding the lake, typically requiring homeowners to rely on surface water instead of drilling a permit exempt well. It should also be noted that all Lake area parcels have on-site septic systems that ultimately discharge household wastewater back into the lake via shallow groundwater percolation. Prior to the passage of the Streamflow Restoration Act, significant streamflow concerns existed in the Kennedy Creek basin. For example, the Department of Ecology has noted that each new surface water withdrawal permit adds to ongoing impairment of the Kennedy Creek instream flow right and tribal rights, and the public interest test (RCW Chapter 90) is not met by incrementally diminishing critical instream flows (See Attachment A). Chapter 173-514 WAC, adopted in January 1984, closed Kennedy Creek and its tributaries to new appropriations of water from May 1 through November 15. While there is an exemption in WAC 173-514 for single domestic in-house use if no other source is available, Ecology has determined that the cumulative impact of the existing diversions under the existing water rights is resulting in harmful impacts to Kennedy Creek and its fisheries and the cumulative impact of existing diversions exceeds the available flow in Kennedy Creek during the WAC closure period, preventing any new water allocations from Summit Lake. Parcel owners may elect to install a permit exempt well in an attempt to find a sustainable water source, but that is likely to result in very deep “dry holes” due to inability to access groundwater. In 1992, there were 139 active surface water permits and certificates on Summit Lake, which Ecology agreed to issue as temporary permits with

	the condition that these rights be relinquished when a public water supply became available. Combined with the 193 temporary permits since 1992, there are 332 total known existing diversions of Lake water. Thurston County and Ecology independently determined that the +600 lots surrounding Summit Lake number greater than the permits on record. These include upland lots that require easements from lakefront property owners to install pumps and water lines. Thurston County has also provisionally identified up to 73 lots with possible permit-exempt wells. Note that the Streamflow Restoration Act does not apply to surface water withdrawals where a water right permit is required. Most Summit Lake water use is therefore not permit-exempt. In addition to water offset benefits, an important driver for the project is the toxicity of potential drinking water used by residents of Summit Lake. Water quality advisories have been issued for Summit Lake residents relying on surface water in 2014, 2016, 2017, 2018, 2019 and 2020. The concerns centered around detections of anatoxin-a above public health advisory concentrations. Anatoxin-a is a potent neurotoxin that is fast-acting and can cause serious illness or death. During health advisories issued in the above years, Thurston County Public Health and Social Services recommends that residents do not drink the lake water. The state advisory level for Anatoxin-a is one microgram per liter. These recurring lake advisories associated with detections of anatoxin-a in laboratory-analyzed surface water samples are now nearly annual. They have raised additional concerns about the reliability of Summit Lake as a safe source of drinking water for residents. During health advisories, the Boy Scouts of America have often donated water from their Camp Thunderbird well to supply some resident needs. **Major Project Elements** • **Conduct a feasibility study to determine the best alternative water source.** Pumping tests, sampling, and permitting research. • **Engineering feasibility study of production and water quality for the appropriate water source,** to develop an engineering basis and approximate costs for the alternative water supply. A crucial engineering feasibility cost-tradeoff analysis is required because of known prior limitations on well yield. • **Community outreach** will be an important element of evaluating cost-benefit tradeoffs because resident acceptance rates in the Summit Lake vicinity will likely be less than 100% (based on prior outreach efforts). This could also include educational aspects or working with residents to address their concerns. • **Identification of a process necessary to negotiate required water rights and any associated mitigation requirements** with the

	Department of Ecology. Relinquishment of some water right permits may be a part of this dialog. • **Identification and approval of a suitable funding mechanism(s).** • **Identification of next steps necessary for approvals of alternative water supply plan by local and state authorities.** • **Identification of financial impacts to residents**.
Description of Benefits:	**1. Potential water offset benefits from the project: 96.7 afy to 132.5 afy,** depending on multiple factors. Water offset benefits may be larger if demand reduction measures can be implemented successfully. 2. **Significant health risk reduction** and the improvement of public health outcomes by limiting surface water connections to Summit Lake at 235 homes. **3. Coho, steelhead, and cutthroat would benefit.** **4. Increased streamflows on Kennedy Creek.** 5. **Benefits are potentially scalable:** additional homes might be served if alternative water supply can be established. 6. **Dual permit/exempt benefits:** the proposed source substitution and re-configuration would include co-located benefits from both permit-required and permit exempt mitigation.
Is Water Quantity a Limiting Factor In this Subbasin?	The Department of Ecology has also noted that a water right comment letter dated January 2, 2018, from the Department of Fish and Wildlife (DFW), states that "…any further reduction in [Kennedy Creek] flows will be detrimental to production of coho, steelhead, and cutthroat and the cumulative impact of numerous small diversions from Summit Lake would reduce flow in Kennedy Creek." DFW further requests denial of applications for diversions of surface water from Summit Lake (see Attachment 1).
Location & Spatial Extent of Benefits:	Flows could be increased in Kennedy Creek from Summit Lake downstream to its confluence with Totten Inlet.
Anticipated Water Offset (if applicable):	**Reduction in demand for a water offset of 16.8 afy to 52.6 afy,** depending on the assessment assumptions and methodology (See Table 1), by restricting some types of outdoor water use (e.g. lawn watering). **Retirement of up to about 79.9 afy of permitted surface water rights at approximately 235 homes.** A source substitution would require about 54 afy pumping at a new downstream Group A wellfield, for a net water

	offset benefit of up to about 26 afy: (235 homes) x (0.34 afy/home median permitted water right) = (79.9 afy in estimated total permits). This calculation assumes that some method can be found to incentivize permit retirement. **Summary of total potential water offset benefits** from the project: 96.7 afy to 132.5 afy, depending on multiple factors. Water offset benefits may be larger if demand reduction measures can be implemented successfully.
Project-Type Specific Information	This project depends heavily on achieving sufficient new well yields downstream of Summit Lake or an alternative water source. Significant questions exist regarding pumping well production.
Estimated Project Cost:	Several million dollars, at minimum, for new source wells, engineering, permitting and new infrastructure.
Performance Goals & Measures:	Weather and lake water quality monitoring is already performed by Thurston County; however, additional monitoring is likely to be needed. (See: https://www.thurstoncountywa.gov/sw/Pages/monitoring-dashboard.aspx).
Anticipated Local and Partner Support & Barriers to Completion:	The Squaxin Island Tribe has indicated that it may support this project. Based on resident comments received in connection with similar proposals in the 1990s and again in 2018-2019, incentives and educational outreach may be required for residents to be supportive of alternative water supply solutions.
Project Sponsor, Implementation Start Date and End Date:	Thurston County may sponsor this project, depending upon Feasibility Study outcomes. The project will need a thorough assessment of well yields or other alternative water sources, a Report of Examination from a CWRE, plus additional hydrogeological, legal, financing, and engineering feasibility studies.

Appendix J – Project Inventory

WRIA 14 Project Inventory for Inclusion in the Watershed Restoration and Enhancement Plan

CATEGORIES (does not reflect prioritization)

I. Likely to be implemented and provides quantitative offset value (see Chapter 5).

II. Likely to be implemented and provides habitat benefit and/or un-quantifiable streamflow benefit (See Chapter 5)

III. Unable to be implemented at this time because the project is highly conceptual or has other constraints.

Category	Project Name	Type of Project	Project Description	Estimated Water Offset Amount (af/yr)	Subbasin	Existing Sponsor	Potential Sponsor (Where No Existing Sponsor Exists)	Project Stage	Estimated Project Cost	Existing Funding
Case										
III	Mason Lake Lake and Beaver managment	Non Water Rights Offset	Evaluate lake management and beaver activity to potentially develop a plan for managing beaver and lake levels, with the goal of stabilizing summer stream flows at higher levels.		Case			Conceptual		$0
III	Mason Lake/Sherwood Creek MAR	Non Water Rights Offset	Develop MAR using high winter lake levels to recharge local aquifers and support Creek baseflows		Case			Conceptual		$0
III	Lower Sherwood Creek Enhancement	Habitat and Other	Install habitat structures in lower Sherwood Creek, improve channel complexity, increase covered pools.		Case	South Puget Sound Salmon Enhancement Group		Conceptual		$0
Goldsborough										
I	City of Shelton Reclaimed Water	Non Water Rights Offset	Convey reclaimed water to Corrections Center; use reclaimed water for 1) infiltration, or 2) replace groundwater puming for irrigation or grey water uses. Find a way for WCC not to grow entirely into their water right. Move feasibility study for RW, reroute, storage and application to shovel-ready. Advance from the first grant from Squaxin Island Tribe	486	Goldsborough	City of Shelton		Conceptual	$1,673,000	$0
III	PE Connection Conversion City of Shelton Water and other group water systems	Non Water Rights Offset	Fund "Latecomers fees" to put homes on City water, where the water main is nearby.		Goldsborough	City of Shelton		Conceptual		$0
III	Dayton Creek - Highland Rd. (MP 0.33)	Habitat and Other	Restore fish passage and habitat access by replacing double barrel pipe culverts with stream simulation design culvert			Mason County Public Works		Construction	$494,475	$420,304
III	Goldsborough Creek Acquisition	Habitat and Other	Acquire 500 acres in Goldsborough Creek watershed on mainstem Goldsborough Creek and tributaries. Highest priority sites will be identified through the proposed "WRIA 14 Landowner Outreach and Acquisition Project Development" project.		Goldsborough	Capitol Land Trust		Planning		$0
III	Coffee Creek (including West and South Forks) agricultural areas	Restoration	Remeander, connect wetlands, riparian planting. Restore fen. Feasibility and design.		Goldsborough			Conceptual		$0
III	Goldsborough Creek Railroad	Restoration	Remove culverts,		Goldsborough			Conceptual		$0
III	Middle Goldsborough Creek	Restoration	Continue wetland and off-channel reconnection		Goldsborough			Conceptual		$0
II	Goldsborough Creek-Hilburn Site Restoration	Non Water Rights Offset	Restore up to 500 feet of the Middle Goldsborough Segment (per E.D.T. conventions). The stream reach has been impacted by the placement of fill and armoring in the floodplain and immediate stream channel, resulting in a homogenous channel form that is mostly a riffle-glide complex. The large 'nose' of fill juts into the stream channel and forms a constriction. Stream conditions at this site, and largely throughout the reach, provide little salmonid rearing habitat, holding water, covered pools, or floodplain off-channel areas. The site was chosen due to its high potential for restoring natural processes and augmenting the habitat with in-stream woody elements, a need for this reach according to the EDT analysis and as per "A Regional and Geomorphic Reference for Quantities and Volumes of Instream Wood in Unmanaged Forested Basins of Washington State" (Fox and Bolton 2007). We anticipate the design for this project will call for at least 52 pieces of wood per 100 meters, likely much more.		Goldsborough			Conceptual	<$1M	$0
	North Fork Goldsborough Creek		SW side of prison properties - potential for winter wetland/off-channel augmentation.		Goldsborough			Conceptual		$0
I	Evergreen Mobile Home Estates	Other	Decommission mobile home wells and septic systems. Connnect park to City water and sewer.	7	Goldsborough			Conceptual	$474,000	$0
II	City of Shelton SWM Infiltration Projects		Possibility to expand on any of Shelton's existing SWM projects (Currently water quality focused)?		Goldsborough			Conceptual		$0

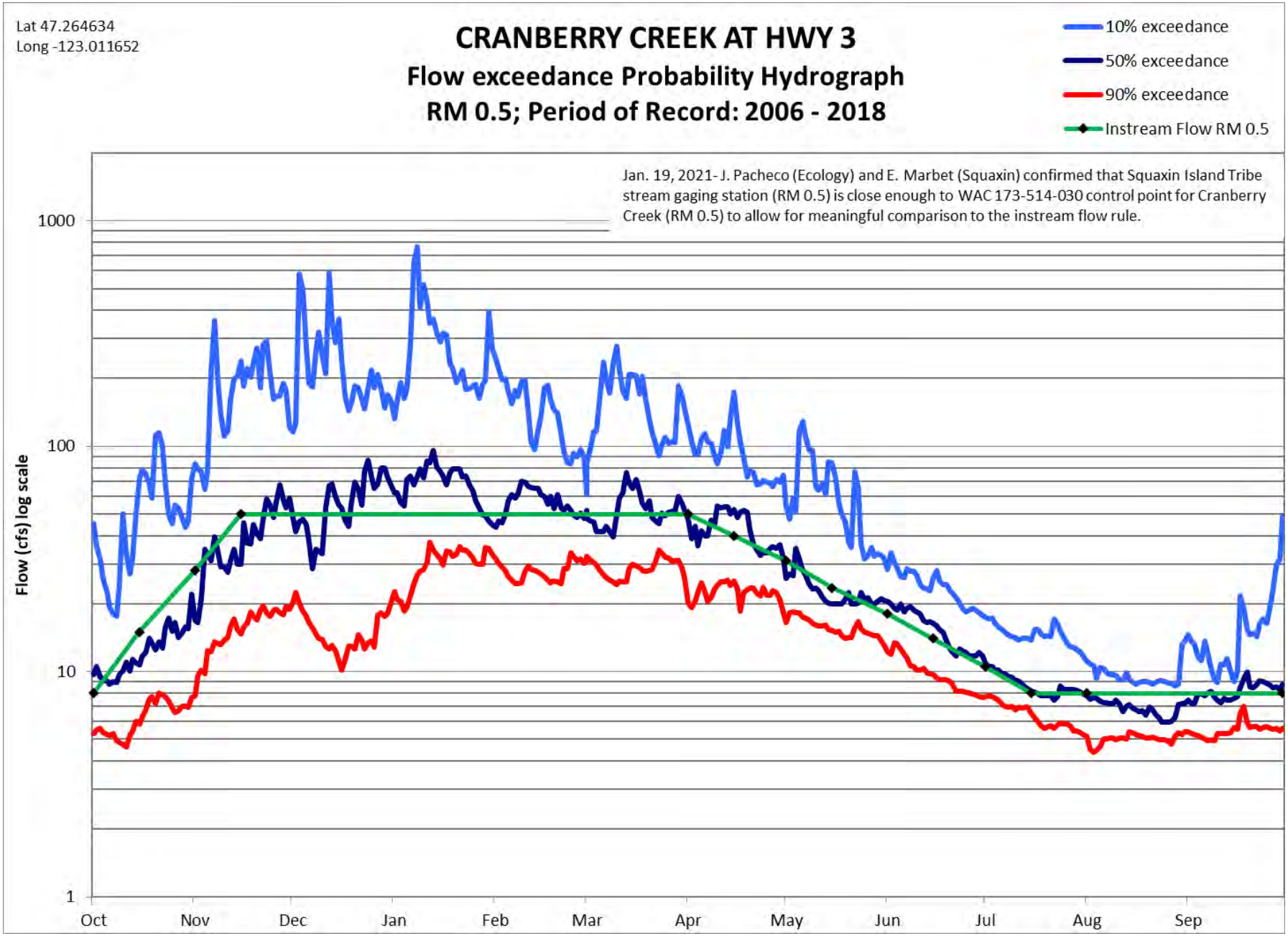
Hood										
III	Hood Canal Watershed Comprehensive Riparian and Floodplain Vegetation Management	Habitat and Other	CHIN7.1: Protect and/or restore critical habitat for salmon populations.		Hood	Mason Conservation District		Planning/Design	$1,718,762	$572,000
III	Union Regional Water System Consolidation	Other	Propose water conservation, strategic modification of growth into inchoate rights that is least impactful to streams. Example golf course conservation, upgrade of Alderbrook wastewater treatment to reclaimed to water golf course, bringing in permit exempt wells to the consolidation system.		Hood			Conceptual		$0
III	Mason PUD - Alderbrook		Reclaimed water use and possible infiltration at Alderbrook Golf Course.		Hood			Conceptual		
Kennedy										
III	Summit Lake Water Use	Water Rights Acquisition	Create Summit Lake Water District; Replace surface numerous water diversions with newgroundwater right. Replace shallow wells and surface lake withdrawals with deeper well? Public rate structure to induce water conservation and therefore decrease total water use in the Kennedy watershed.	24-133	Kennedy			Conceptual		$0
III	Kennedy creek Riparian Corridor Acquisition	Habitat and Other	Acquire in fee simple, approximately 900 acres on both banks of Kennedy Creek, both upstream and downstream of Kennedy Creek falls.		Kennedy	Western Rivers Conservancy		Feasibility	$10,000,000	$0
II	Steamboat Island North Wetland	Habitat and Other	Ditch removal and floodplain reconnection of a headwater wetland. Possible beaver reintroduction. ~195.3 acres		Kennedy	Thurston County		Conceptual	<$1M	$0
I	Steamboat Island Middle Wetland	Habitat and Other	Managed Aquifer Recharge (MAR) in conjunction with habitat restoration and parkland creation. ~344 acres	14	Kennedy	Thurston County		Conceptual	$1 M	$0
III	Upper Schneider Creek Restoration	Habitat and Other	Managed forestry to increase stand age in the upper Kennedy Creek basin. Acquire and hold as parkland. ~147 acres		Kennedy		Thurston County, WRIA 14 lead entity, Capitol Land Trust	Conceptual		$0
III	Lower Schneider Creek Restoration	Habitat and Other	Ditch removal, MAR, and floodplain reconnection on the lower steamboat island peninsula. 212 acres		Kennedy		Thurston County	Conceptual		$0
III	Burns/Schneider Creek Forestry	Habitat and Other	Managed forestry to increase forest stand age. Purchase and protect forest land on upper Burns Creek. 2,192 acres.		Kennedy		Thurston County	Conceptual		$0
III	Forestry and Flow Assessment	Habitat and Other	Managed forstry to increase stand age in Kennedy, Schneider, and Perry Creeks for potential streamflow benefit.		Kennedy		Thurston County	Conceptual		$0
II	Schneider Creek Source Switch	Water Rights Acquisition	Irrigation water source swtich from surface water to groundwater. Currently conflicts with foster decision and would require a legislative fix. Possible future offset of 162 af/year if there is a change in legislation, pending validating and investigation.	64	Kennedy		Thurston County	Conceptual		$0
Mill										
III	Gosnell Creek LWD and Riparian Design	Habitat and Other	Mason Conservation District will restore a high priority reach along the mainstem of Gosnell Creek through the implementation of multiple complimentary stream and riparian restoration practices including: 1) installing LWD in at least 0.5 miles of stream; 2) planting a minimum 7 acres of riparian vegetation; 3) installing approximately 1 mile of exclusion fencing; and 4) replacing an existing bridge with a new railcar bridge to negate the need for the landowner's wet crossing.The vast majority of the project area's riparian buffer is no longer intact and has been converted to pasture, with very little exclusion fencing in place to keep livestock out of the stream. Downstream of the project reach lies a warm shallow lake and several stream reaches that are 303(d) listed for exceeding temperature and bacteria limits. Upstream of the project reach lies some of the best spawning and rearing habitat in the watershed for Coho and steelhead. While Gosnell Creek provides several high quality tributaries, the majority of its lower mainstem suffers from a lack of riparian buffer, exclusion fencing, and LWD. In order to preserve the current instream temperatures of Gosnell Creek and sustain a healthy spawning and rearing refuge, local strategies recommend implementing projects that focus on riparian planting, working with landowners to install exclusion fencing, and installing LWD within the lower Gosnell Creek mainstem. This...		Mill	Mason Conservation District		Other	$356,117	$246,000
III	Mill/Gosnell Agricultural areas	Restoration	Remeander, connect wetlands, riparian planting. Feasibility and design.		Mill			Conceptual		$0
III	Mid Gosnell	Restoration	Potential properties but have not discussed projects with landowners. Look for more parcels. Riparian restoration.		Mill			Conceptual		$0

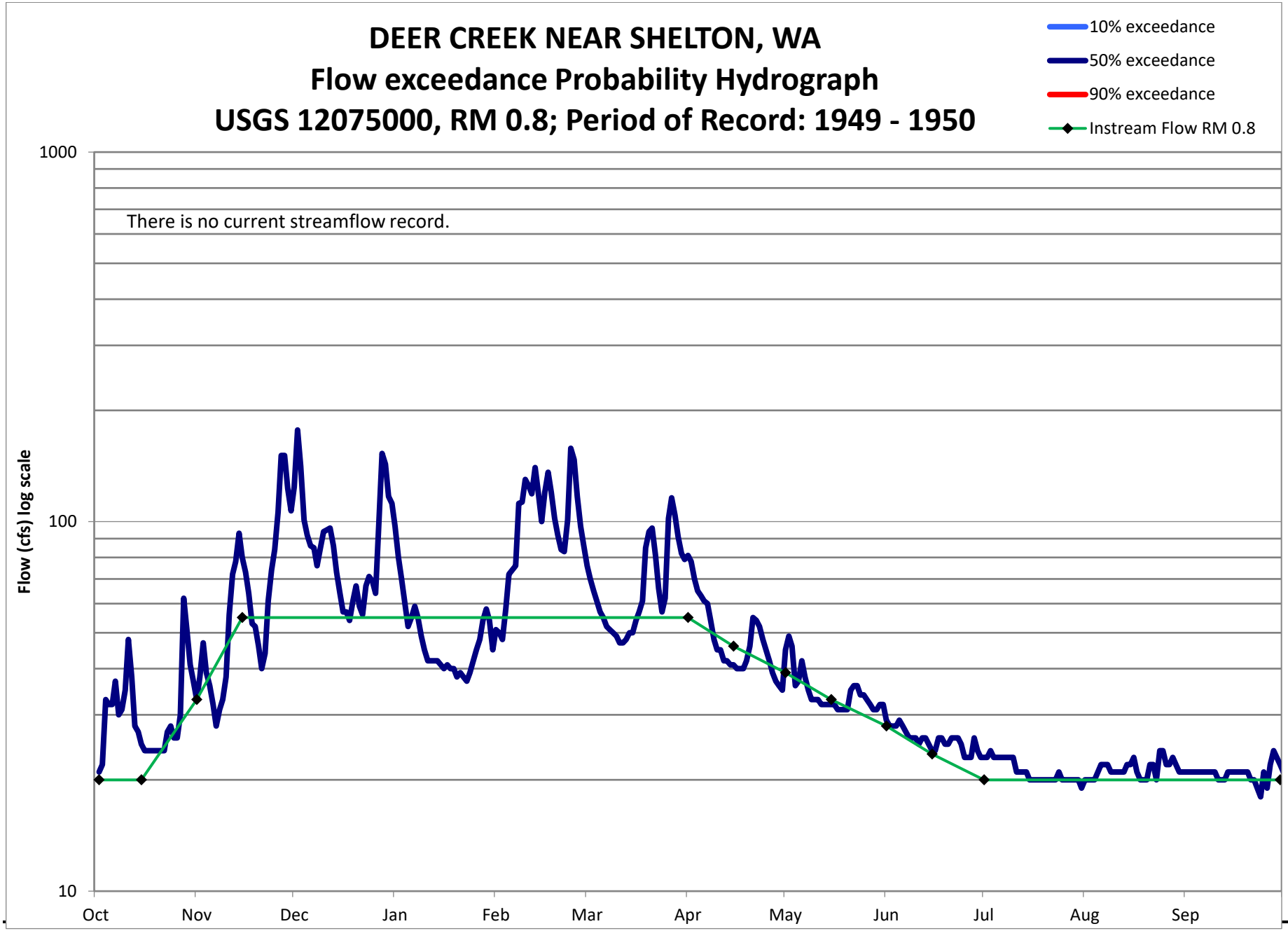
III	Upper Gosnell headwaters acquisition or conservation easement	Agreement or Conservation Easement or Acquisition	Recognizes an important headwater coldwater source. Low risk of conversion right now.		Mill			Conceptual		$0
III	Reclaimed water to Mill Creek		Upgrade Fairmont WWTP to reclaimed. Move RW from Oakland Bay up and over the divide to the Mill Creek system, where there will be many permit-exempt wells.		Mill			Conceptual		$0
Oakland										
III	Protect the Coldwater Tributary of Johns Creek.		Secure protection for yet undeveloped private land.		Oakland			Conceptual		$0
III	Johns Creek Reclaimed Water		Bring additional reclaimed water through upgrading of wwt and drinking water infrastructure at the Evergreen Estates mobile home park. Add the purple pipe as well, and extend it to vacant land north of the mobile home park to iniltrate it and get it back into the Johns Creek system.		Oakland			Conceptual		$0
III	Johns Creek Rock Pit Water Right (Kadoun Quarry Surface Water Right)		Landowner has not been contacted. Retire all or part of 1 cfs water right, as they currently pump all of it for part of each summer day. 1 cfs water right - could talk to owner about the length of time anticipated for using water right, could put into trust after use, or if it will be in use for along time could they switch water source to a well that is separate from the creek. High priority area for salmon, although "low" in the watershed.		Oakland			Conceptual		$0
III	Johns Creek Hatchery opportunities		Some water leaks into the pond away from mainstem Johns Creek. Get that water back into the creek. Or turn this into a managed aquifer recharge area.		Oakland			Conceptual		$0
Skookum										
III	Skookum Valley Habitat Acquisition (Freshwater)	Habitat and Other	Skookum (Skookum Valley) creek habitat acquisition -(i.e. easement on McDonald property), 300 acres with restoration to follow.		Skookum	Capitol Land Trust & Squaxin Island Tribe		Feasibility	$4,000,000	$0
II	Skookum Creek agricultural areas	Acquisition and Restoration	Remeander, connect wetlands, riparian planting. Squaxin can provide specifics. Design		Skookum			Conceptual	<$1M	$0
III	Skookum sideslopes and headwaters	Agreement or Conservation Easement or Acquisition			Skookum			Conceptual		$0
III	Skookum Creek/ Hurley Creek Water Right retirement.		Retire any known active surface water rights in Skookum/Hurley.		Skookum			Conceptual		$0
III	Skookum Creek reclaimed water projects		Apply Squaxin reclaimed water to the ground, so it makes it to Skookum Creek or Little Creek. Potential for a reclaimed water storage project.		Skookum			Conceptual		$0
II	Skookum Valley railroad blockages	Habitat and Other	Replace culverts under railroad bed, reopen salmon access and floodplain connectivity		Skookum			Conceptual	<$1-5M	$0
WRIA-wide										
III	Mason County Stormwater Retrofits	Non Water Rights Offset	Stormwater retrofits of existing built out areas, from Mason County comprehensive plan.		WRIA-Wide	Mason County		Scoping		$0
III	Puget Sound Conservation District Stormwater Action Team Phase II	Non Water Rights Offset	BIBI1.1: Increase local capacity to manage stormwater programs., BIBI2.1: Provide education and incentives for legacy retrofits.		WRIA-Wide	Puget Sound Conservation Districts Caucus		Planning/Design	$295,000	$0
III	Simulate Summer Streamflows in Response to Groundwater Pumping and Climatic Effects	Monitoring	CHIN2.1: Protect and restore instream flows to levels necessary for salmon recovery		WRIA-Wide	U.S. Geological Survey		Planning/Design	$1,230,000	$0
III	HCCC Integrated Watershed Plan-Adaptive Management and Monitoring	Adaptive Management/Implementation	EST3.4: Collect and analyze data to adaptively manage estuary recovery practices, FP3.4: Collect and analyze data to adaptively manage floodplain recovery practices, LDC3.4: Collect and analyze data to adaptively manage recovery practices		WRIA-Wide	Hood Canal Coordinating Council		Implementation	$160,000	$60,000

III	Restore Naturally Functioning Riparian Buffers in South Sound	Habitat and Other	CHIN7.1: Protect and/or restore critical habitat for salmon populations.		WRIA-Wide	Mason Conservation District		Planning/Design	$373,520	$20,000
III	Shelton Green Stormwater Infrastructure Program Development - Phase 1	Non Water Rights Offset	BIBI1.1: Increase local capacity to manage stormwater programs., BIBI2.1: Provide education and incentives for legacy retrofits.		WRIA-Wide	Mason Conservation District		Design	$317,000	$317,000
III	WRIA 14 Habitat Acq Project Assessment	Conservation	This project will develop habitat conservation projects on the most strategic parcels for the protection of nearshore and freshwater salmon habitat in the Kennedy/Goldsborough Watershed (WRIA 14). It directly builds upon prioritizations and habitat assessments already completed by Capitol Land Trust (CLT), the WRIA 14 Lead Entity, and the Squaxin Island Tribe of important salmon habitat in WRIA 14. CLT will assess landowner willingness to pursue habitat protection on at least ten properties; their response will form the basis of subsequent Salmon Recovery Funding Board and other acquisition grant proposals. For two properties with willing landowners, CLT will complete tasks necessary to accurately determine project feasibility and the value of the property or conservation easement, including creating GIS maps, drafting conservation easement language (as applicable), and completing title review, field assessments, and appraisals. The completion of these due diligence tasks is integral for successful negotiations with landowners and project development of conservation projects. This project will protect tier-1 rearing and spawning habitat for Chinook, steelhead, and/or treaty-right salmonid populations, and essential habitat-forming natural processes.		WRIA-Wide			Conceptual		$0
III	Small landowner riparian purchase program				WRIA-Wide			Conceptual		$0
III	Well replacement - deeper into lower aquifer				WRIA-Wide			Conceptual		$0
III	Develop water conservation projects.				WRIA-Wide			Conceptual		$0
III	Beaver analog and beaver reintroduction				WRIA-Wide			Conceptual		$0
III	Agricultural water efficiency.		Transfer water right to an instream flow or retire water rights.		WRIA-Wide					$0
III	Mason County Rooftop Runoff LID		County requires new PE well or connection dwellings to infiltrate their rooftop runoff. The offset benefit would be the water saved from evaporation that would otherwise occur during runoff.	249	WRIA-Wide	Mason County		Conceptual	$0, expected costs to be covered by costs of construction of new homes, ranging from $3,780 to $9,300 per home.	$0
I	WRIA-wide MAR proejcts		Focused MAR project package in the Kennedy, Mill, Skookum, Goldsborough, Cranberry, Johns, and Sherwood subbasins.	910	WRIA-Wide	Thurston County, Mason County, Mason PUD 1		Conceptual	$940,000	$0
II	General floodplain reconnection projects		Identify floodplain reconnection project opportunities in WRIA 14		WRIA-Wide	Thurston County, Mason County, City of Shelton, Squaxin Island Tribe, etc.		Conceptual		$0
I	Water Right Opportunities	Water Rights Acquisition	Identify opportunities for future water right acquisition and/or irrigation efficiencies.	111	WRIA-Wide			Conceptual	$285,000	$0
II	Forest Stand Age		Identify opportunities for managed forestry to increase forest stand age, providing streamflow benefit.					Conceptual		$0

Appendix K – WRIA 14 Streamflow Statistics

The following information was prepared by Jim Pacheco (Department of Ecology) and Erica Marbet (Squaxin Island Tribe) for the WRIA 14 Committee for the purposes of this watershed plan.


Lat 47.264634
Long -123.011652
CRANBERRY CREEK AT HWY 3
Flow exceedance Probability Hydrograph
RM 0.5; Period of Record: 2006 - 2018
10% exceedance
50% exceedance
90% exceedance
Instream Flow RM 0.5
Jan. 19, 2021- J. Pacheco (Ecology) and E. Marbet (Squaxin) confirmed that Squaxin Island Tribe stream gaging station (RM 0.5) is close enough to WAC 173-514-030 control point for Cranberry Creek (RM 0.5) to allow for meaningful comparison to the instream flow rule.
Flow (cfs) log scale
1000
100
10
1
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep

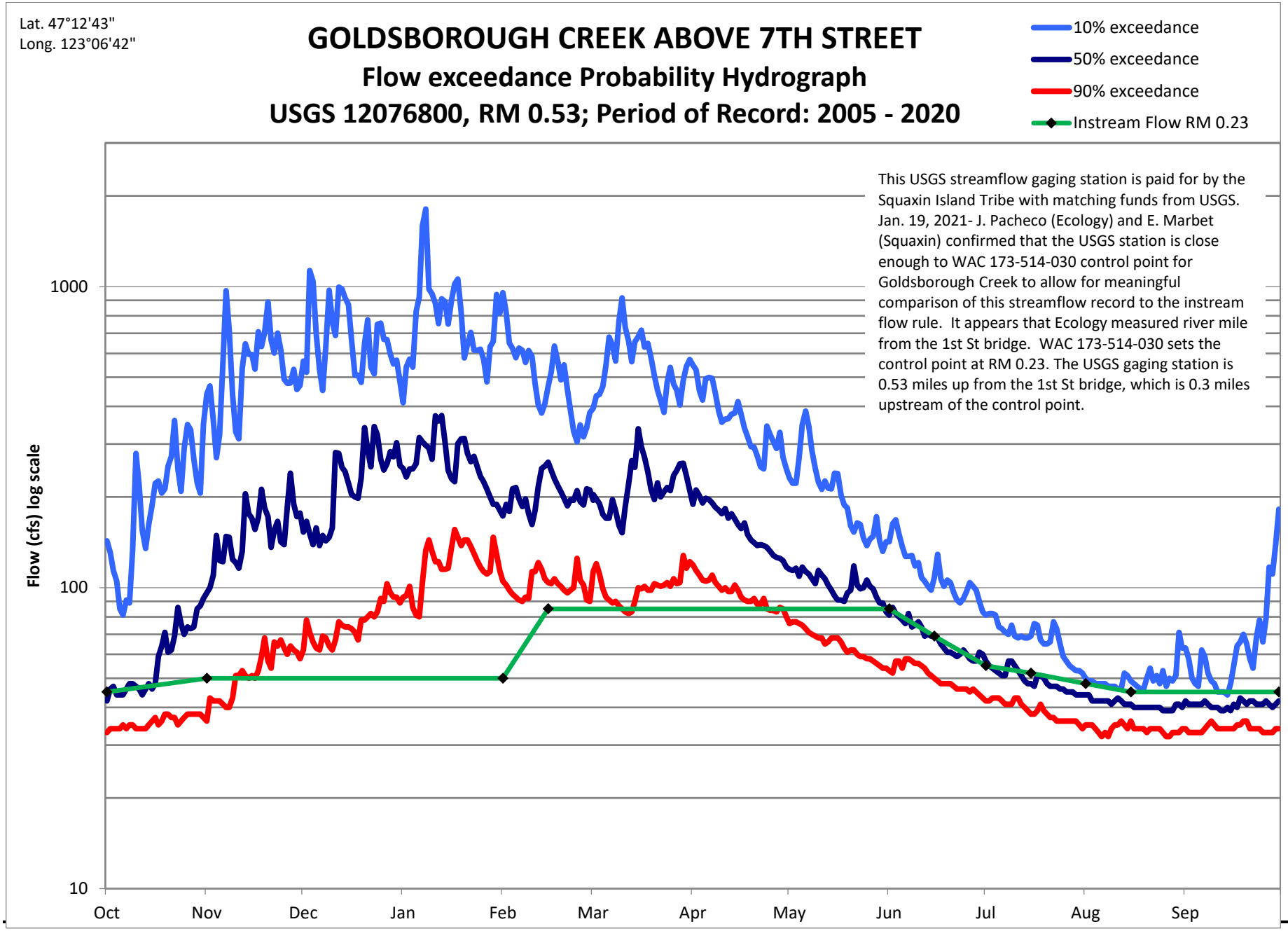

DEER CREEK NEAR SHELTON, WA
Flow exceedance Probability Hydrograph
USGS 12075000, RM 0.8; Period of Record: 1949 - 1950
10% exceedance
50% exceedance
90% exceedance
Instream Flow RM 0.8
There is no current streamflow record.
Flow (cfs) log scale
1000
100
10
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep

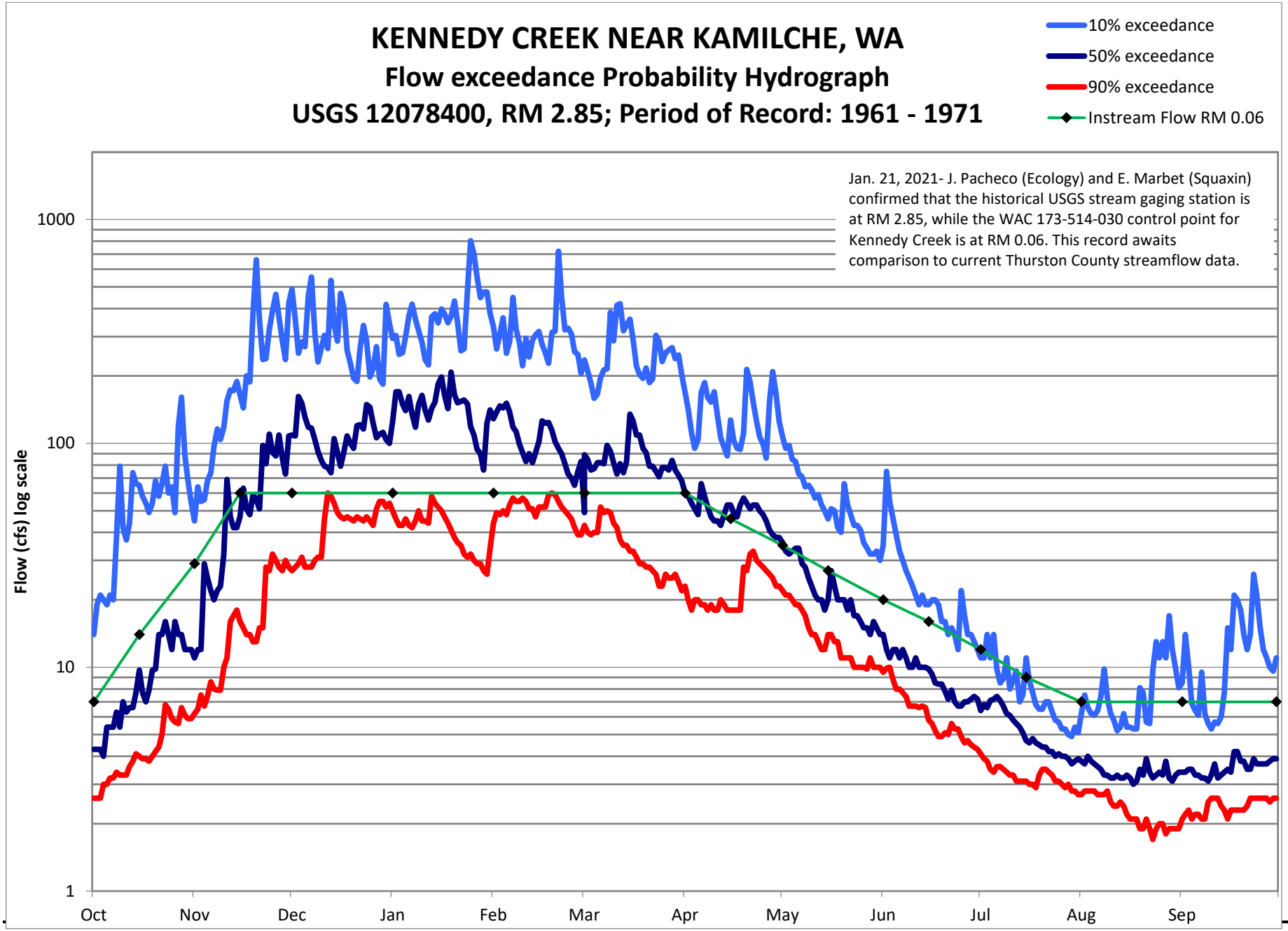
Lat. 47°12'43"
Long. 123°06'42"

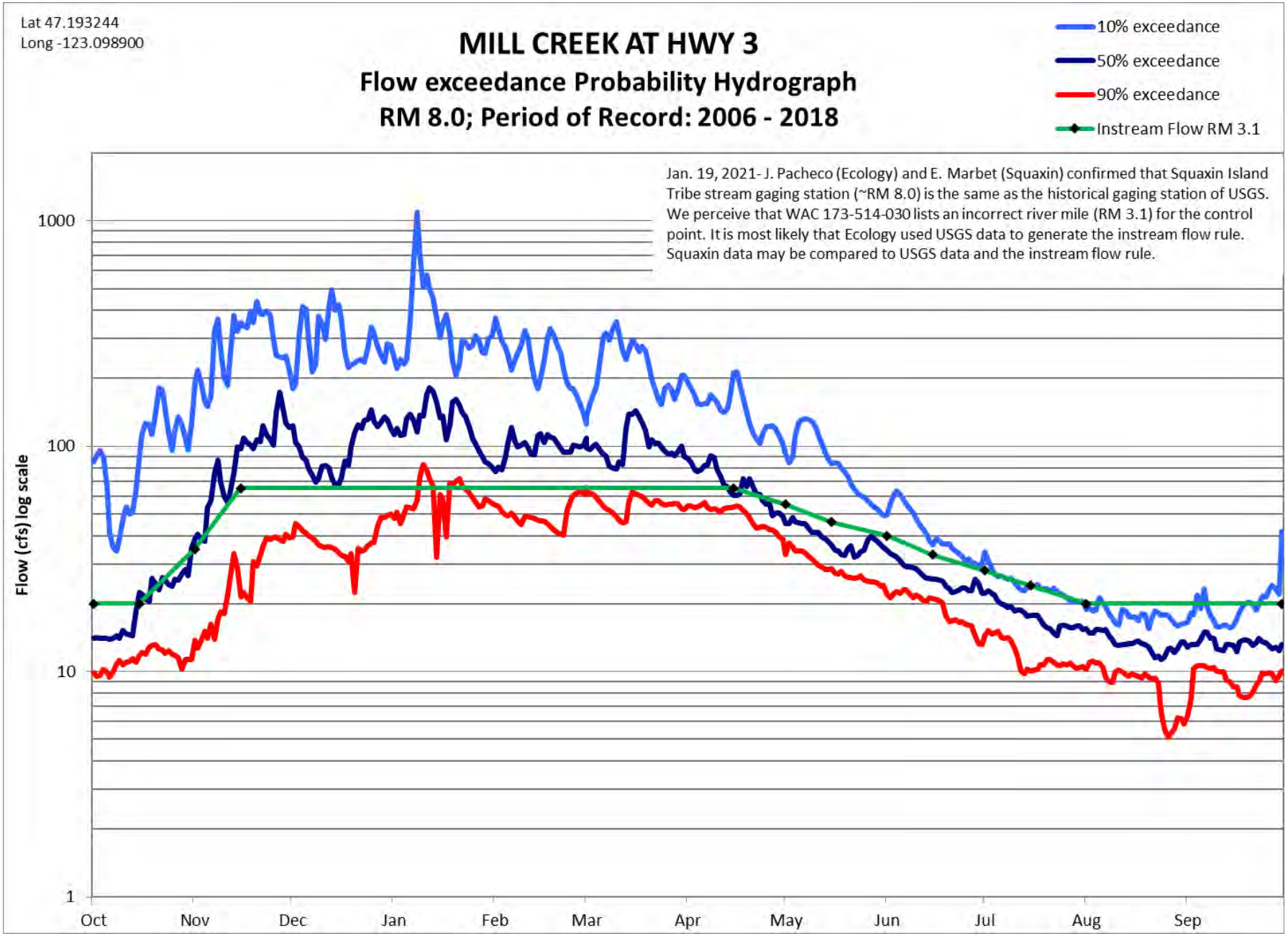
GOLDSBOROUGH CREEK ABOVE 7TH STREET

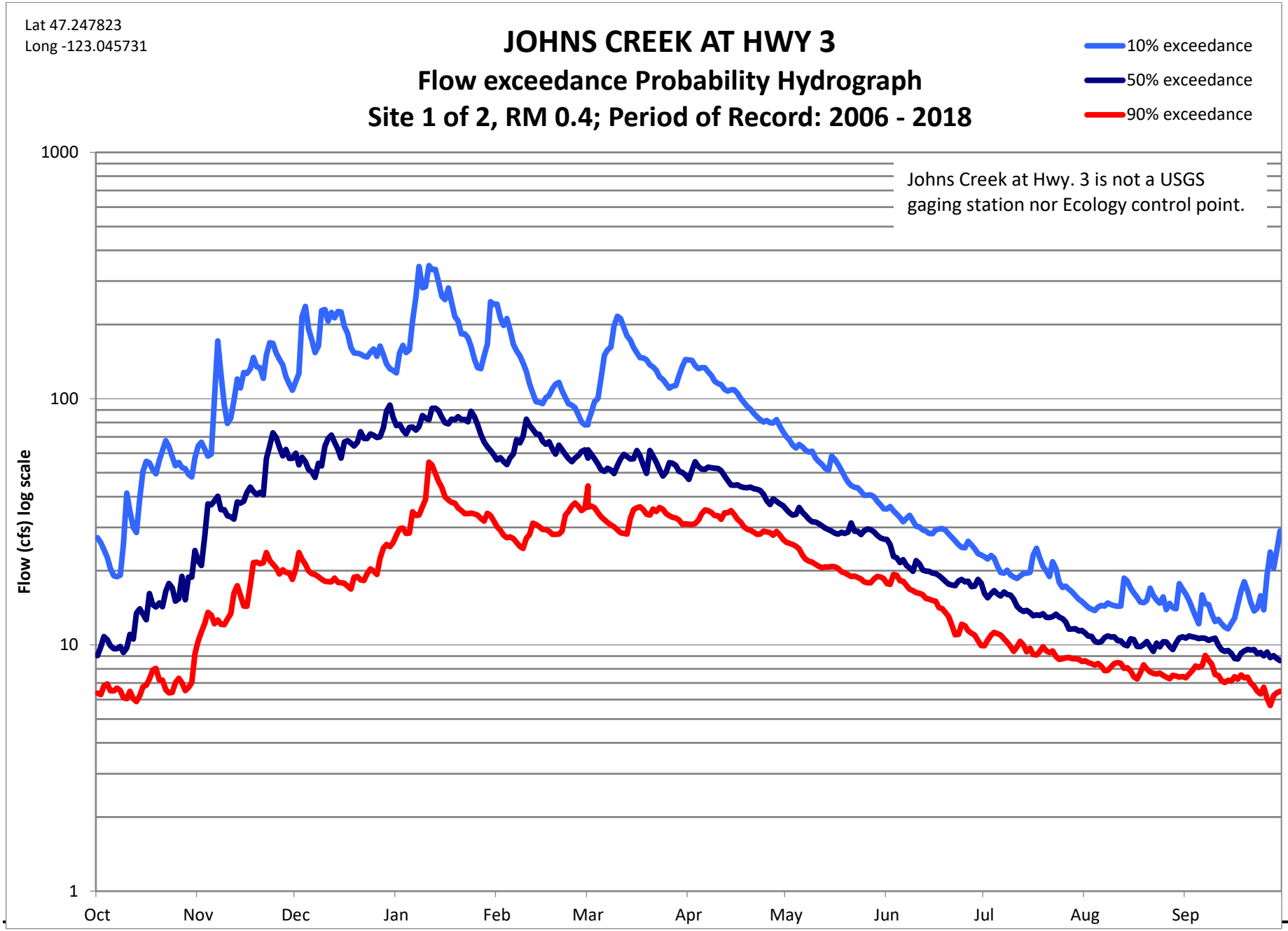
Flow exceedance Probability Hydrograph

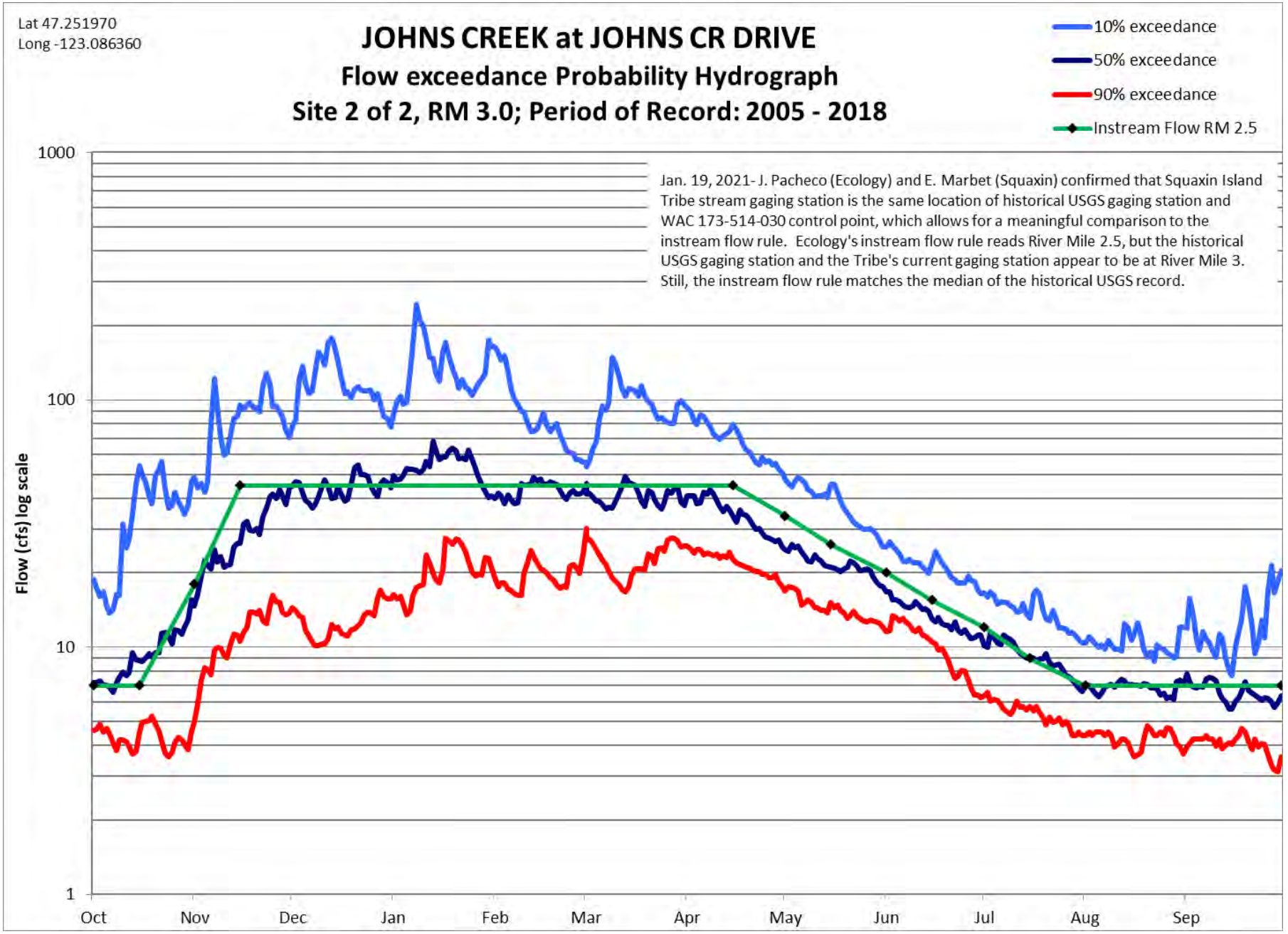
USGS 12076800, RM 0.53; Period of Record: 2005 - 2020

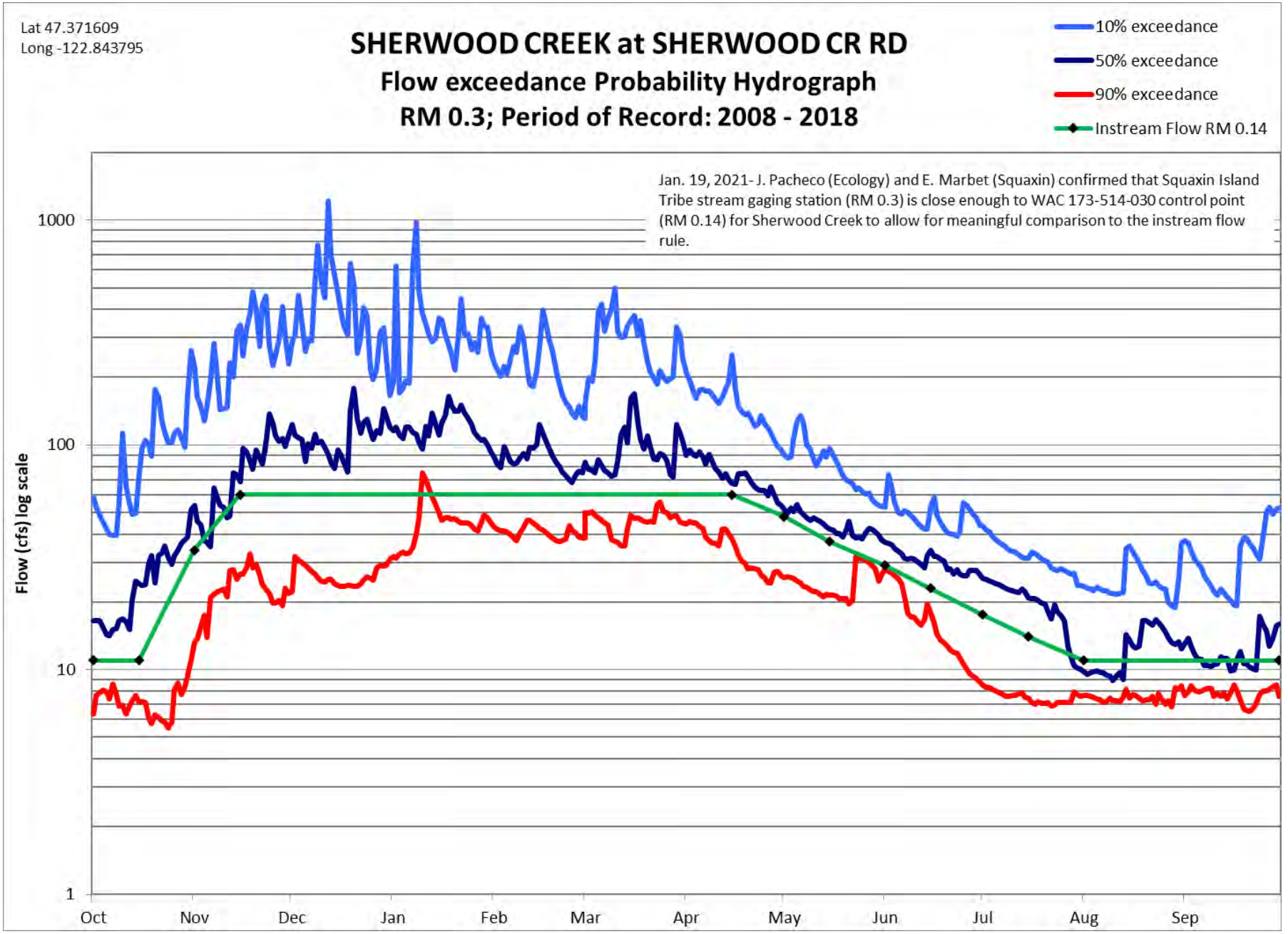


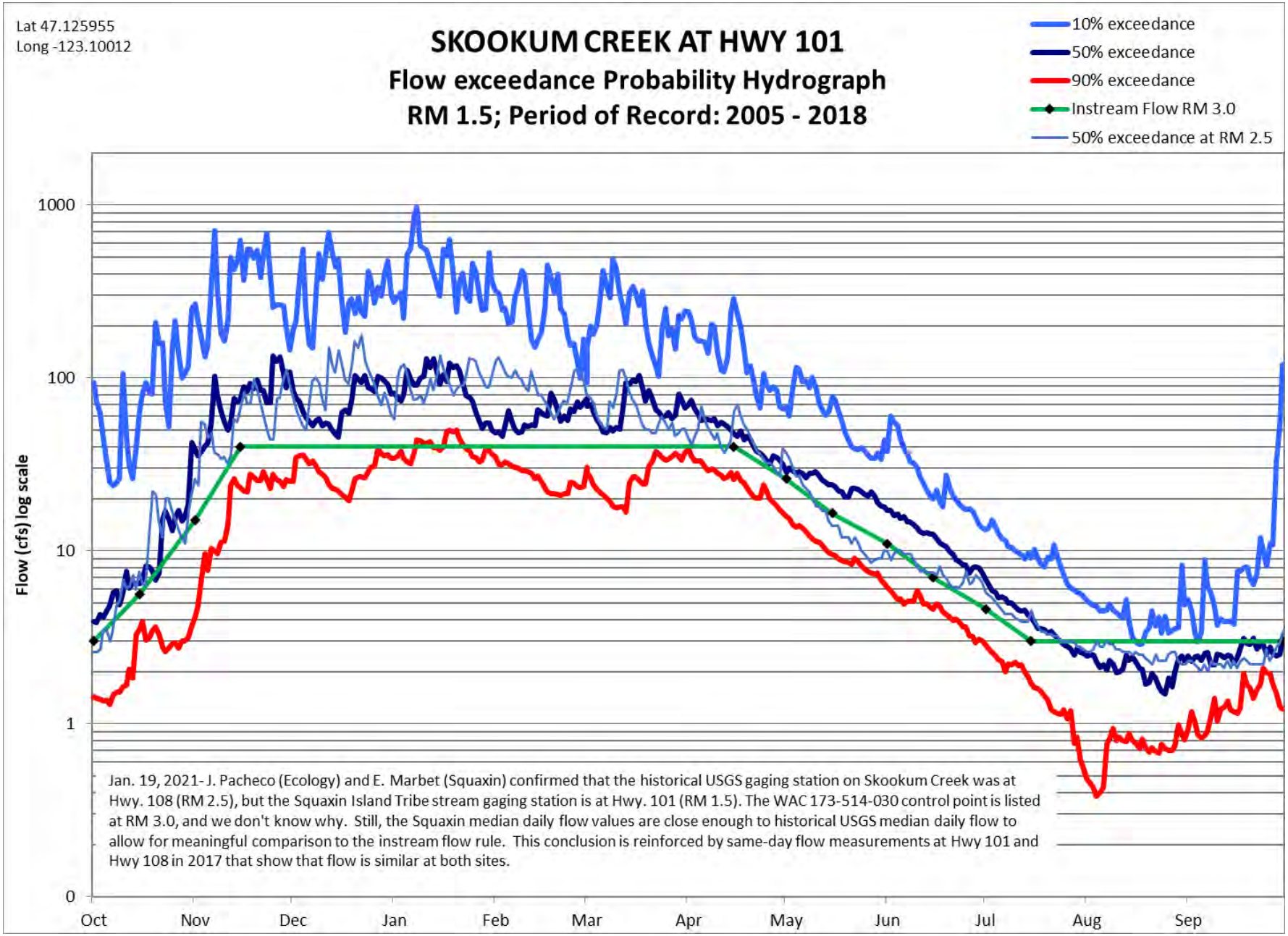

KENNEDY CREEK NEAR KAMILCHE, WA
Flow exceedance Probability Hydrograph
USGS 12078400, RM 2.85; Period of Record: 1961 - 1971
10% exceedance
50% exceedance
90% exceedance
Instream Flow RM 0.06
Jan. 21, 2021- J. Pacheco (Ecology) and E. Marbet (Squaxin) confirmed that the historical USGS stream gaging station is at RM 2.85, while the WAC 173-514-030 control point for Kennedy Creek is at RM 0.06. This record awaits comparison to current Thurston County streamflow data.
Flow (cfs) log scale
1000
100
10
1
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep


Lat 47.193244
Long -123.098900
MILL CREEK AT HWY 3
Flow exceedance Probability Hydrograph
RM 8.0; Period of Record: 2006 - 2018
10% exceedance
50% exceedance
90% exceedance
Instream Flow RM 3.1
Jan. 19, 2021- J. Pacheco (Ecology) and E. Marbet (Squaxin) confirmed that Squaxin Island Tribe stream gaging station (~RM 8.0) is the same as the historical gaging station of USGS. We perceive that WAC 173-514-030 lists an incorrect river mile (RM 3.1) for the control point. It is most likely that Ecology used USGS data to generate the instream flow rule. Squaxin data may be compared to USGS data and the instream flow rule.
Flow (cfs) log scale
1000
100
10
1
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep


Lat 47.247823
Long -123.045731
JOHNS CREEK AT HWY 3
Flow exceedance Probability Hydrograph
Site 1 of 2, RM 0.4; Period of Record: 2006 - 2018
10% exceedance
50% exceedance
90% exceedance
Johns Creek at Hwy. 3 is not a USGS gaging station nor Ecology control point.
Flow (cfs) log scale
1000
100
10
1
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep


Lat 47.251970
Long -123.086360
JOHNS CREEK at JOHNS CR DRIVE
Flow exceedance Probability Hydrograph
Site 2 of 2, RM 3.0; Period of Record: 2005 - 2018
10% exceedance
50% exceedance
90% exceedance
Instream Flow RM 2.5
Jan. 19, 2021- J. Pacheco (Ecology) and E. Marbet (Squaxin) confirmed that Squaxin Island Tribe stream gaging station is the same location of historical USGS gaging station and WAC 173-514-030 control point, which allows for a meaningful comparison to the instream flow rule. Ecology's instream flow rule reads River Mile 2.5, but the historical USGS gaging station and the Tribe's current gaging station appear to be at River Mile 3. Still, the instream flow rule matches the median of the historical USGS record.
Flow (cfs) log scale
1000
100
10
1
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep


Lat 47.371609
Long -122.843795
SHERWOOD CREEK at SHERWOOD CR RD
Flow exceedance Probability Hydrograph
RM 0.3; Period of Record: 2008 - 2018
10% exceedance
50% exceedance
90% exceedance
Instream Flow RM 0.14
Jan. 19, 2021- J. Pacheco (Ecology) and E. Marbet (Squaxin) confirmed that Squaxin Island Tribe stream gaging station (RM 0.3) is close enough to WAC 173-514-030 control point (RM 0.14) for Sherwood Creek to allow for meaningful comparison to the instream flow rule.
Flow (cfs) log scale
1000
100
10
1
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep


Lat 47.125955
Long -123.10012
SKOOKUM CREEK AT HWY 101
Flow exceedance Probability Hydrograph
RM 1.5; Period of Record: 2005 - 2018
10% exceedance
50% exceedance
90% exceedance
Instream Flow RM 3.0
50% exceedance at RM 2.5
Flow (cfs) log scale
1000
100
10
1
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
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Jul
Aug
Sep
Jan. 19, 2021- J. Pacheco (Ecology) and E. Marbet (Squaxin) confirmed that the historical USGS gaging station on Skookum Creek was at Hwy. 108 (RM 2.5), but the Squaxin Island Tribe stream gaging station is at Hwy. 101 (RM 1.5). The WAC 173-514-030 control point is listed at RM 3.0, and we don't know why. Still, the Squaxin median daily flow values are close enough to historical USGS median daily flow to allow for meaningful comparison to the instream flow rule. This conclusion is reinforced by same-day flow measurements at Hwy 101 and Hwy 108 in 2017 that show that flow is similar at both sites.

Appendix L – Mason County PUD #1 Water Consumption Data

Consumption Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Average	% Change since 2013	% Change since 2018
Agate Beach	0	0	0	0	568560	1678139	1797089	732299	710420	662825	879718.181	830649	982462.4	-0.505017761	-0.0557783
Alderbrook	51827438	54490630	45066594	48858393	49865906	51183332	55098513	67393435	57643113	58361455	63472044.8	55892000	54929404	0.091996121	-0.1194234
Arcadia	2720471	3018068	2867124	2583248	3052408	2791020	2443641	2481857	2502546	2797842	2389598.2	1940484	2632359	-0.304740203	-0.1879455
Anthony Rd N											129037	460020			
Anthony Rd S											100711	275234			
Bay East	3605442	1940910	1557156	1634829	1760687	2231209	2381647	2175655	1980527	2534905	2355779.32	1612794	2147628	-0.277165877	-0.3153883
Bayshore	1405221	1594469	1824010	1507640	1526055	1479993	1710364	1710070	1862286	1309420	1418225.08	1333898	1556804	-0.098713305	-0.0594596
Bellwood A											2969231	4348520			0.46452735
Bellwood B											129000	419695			
Black B											97539	295852			
Black C											102169	280557			
Bloomfield	0	0	25550	550715	421012	547873	433010	439510			586521.76	229871	458359	-0.580430136	-0.6080776
Canal Beach	0	1190345	1691340	1064299	1652564	1636602	1448061	1258645			607959.24	465556	1223930	-0.715534993	-0.2342316
Canal Mutual	0	0	0	0	538470	3031452	2032166	1793921	2245780	2169686	2156775.72	2230424	2024834	-0.264239051	0.0341474
Canyonwood	543923	474320	450887	487457	471180	578204	583560	668772	455592	533466	791683.2	734334	564448.2	0.270025804	-0.0724396
Cedar Meadows 1											146840	392326			
Cedar Meadows 2											134401	405057			
Cherry Park	2035390	299227	2329205	881405	2125262	1945152	2189501	2218065	2056282	2438832	2777249.2	2971291	2022238	0.527536666	0.06986834
Craig	0	0	0	44065	212013	208565	369669	369669	233885	180575	167933.48	91675	229248.1	-0.560448781	-0.4540993
Cushman Inc	0	0	0	0	53400	57454	97200	105745	100000	57387	102169.32	187681	95129.54	2.266630696	0.83696045
Dayton Trials											3179704	4523695			
Elkridge											45965	99043			
Enchantment Heights										382445	348493	372788			
Enchantment Ridge										252899	234737	278563			
Harstene Retreat	1368810	1452728	1199828	1194160	1298797	1274470	1283620	1205889	1189353	1230213	1424251.84	1293629	1284646	0.015032916	-0.0917133
Hamma Ridge											446803	630474			0.41107826
Highland Estates	200673	4126589	3205906	3327306	3211620	3439611	3716116	3940703	3377751	3567496	3559133.6	3831843	3573098	0.114033825	0.07662241
Highland Park	242225	5189999	4407373	4496153	5124092	4699352	4687589	4945320	5069216	5552606	5755478.52	5272577	5018160	0.121979584	-0.0839029
Holiday View Two						474500	328500	382240	664300	579900	489500	505200	489162.9	0.064699684	0.03207354
Hood Canal	839106	1380733	983196	1510757	3360390	8865553	8164048	7062438	8020288	6383774	6294868.44	5674204	4878280	-0.359971792	-0.0985985
Hood Canal A	839106	1380733	983196	1388295	1315904						9765908.16			#DIV/0!	-1
Hood Canal B	0	0	0	122462	2044486						1084046.48			#DIV/0!	-1
Hoodsport	702716	10232670	9312406	9651660	9384019	10445440	10439064	10828675	10118772	9044085	9765908.16	10822662	9229006	0.036113558	0.10820846
Island Hide-A-Way	0	0	911618	971525	978354	970919	801078	821095	955428	845195	1084046.48	866199	920545.7	-0.107856577	-0.2009577
Island Lake Manor											4353237	5992720		#DIV/0!	0.37661239
Jackson Timber											63505	143474		#DIV/0!	1.25925518
Jade Drive											118117	340998		#DIV/0!	1.88695107
Lake Arrowhead	2902523	3542169	3253064	2681424	2401154	2877190	3110613	3679452	3329245	3448481	2932132.16	3106975	3105369	0.079864382	0.05962993
Lakewood Hts	4392944	4832319	4146504	4295256	4283841	3684094	3721083	4401793	4103408	4456636	4266173.12	3974176	4213186	0.078739033	-0.0684447

Madrona	0	0	305548	493927	473686	459309	453864	665870	659983	689095	598916.12	550274	560547.1	0.198047502	-0.0812169
Madrona Park											332276	555839		#DIV/0!	0.6728232
Minerva	2253589	2229556	1919568	1543057	2410565	1715052	1536908	1828239	1928434	1865490	2160089.36	1458017	1904047	-0.149870091	-0.3250201
Mountain View	673140	637805	543325	517721	618633	597630	595647	551456	392371	370013	396514.8	491847	532175.2	-0.177004166	0.24042533
New Pine Acres											503867	499719		#DIV/0!	-0.0082323
Pickering View											67028	144753		#DIV/0!	1.15959002
Pirate's Cove	2368168	2700144	2048510	2222100	2275573	1963552	2234755	2445291	2074039	2091363	2215022.48	2049370	2223991	0.043705489	-0.0747859
Rainbow Lake											3283189	3591342		#DIV/0!	0.09385783
Rhododrendon Pl											1157410	1641546		#DIV/0!	0.41829257
Ripplewood											1018716	1194010		#DIV/0!	0.17207347
Rolling Hills											165375	450004		#DIV/0!	1.72111262
Shadowood											3409819	4512847		#DIV/0!	0.32348579
Singh Water											50617	134513		#DIV/0!	1.65746686
Southside	221191	166467	190740	196956	203680	169796	222762	210584	299656	348792	251844.12	213098	224630.5	0.255023675	-0.1538496
Springwood											1621955	2150926		#DIV/0!	0.32613174
Stonebriar 1											138043	399282		#DIV/0!	1.89244656
Stonebriar 2											356751	666169		#DIV/0!	0.86732203
Stonebriar 3											140856	479244		#DIV/0!	2.40236838
Tiger Lake	1496372	1658029	1787458	1244957	1239543	1238640	2017302	2291441	2151005	1979267	2063889.08	1911402	1756609	0.543145708	-0.0738834
Twanoh Hts	0	0	0	0	0	2553065	2696623	3386954	3247801	3203938	3410431.2	2790900	3041387	0.093156657	-0.1816577
Twanoh Terrace	0	0	0	0	0	2299500	2053125	2077322	1721485	1399224	1447604.4	1491834	1784299	-0.351235486	0.03055365
Union	10958003	11789152	10771948	10936740	10884559	10697591	11194187	12231296	11350332	12341028	11721120.3	11774419	11387531	0.100660794	0.00454724
Union Ridge	0	0	0	1124506	1454306	1569131	1602051	1792051	1485229	1649998	1595872.96	1885932	1573231	0.201895826	0.18175572
View Ridge Hts	7021558	7711237	7114550	7021887	7076050	6792154	6870021	7675103	6915613	6936254	7612215.24	6981540	7144015	0.027883054	-0.0828504
Viewcrest Beach	0	0	0	0	0	889103	819225	893456	993845	664538	708528.04	806681	825053.7	-0.09270242	0.13853081
Vuecrest	1428261	1934904	1637005	1465175	1943798	1468493	1539100	1619547	1895971	2076568	2386449.12	2247471	1803562	0.530460819	-0.0582364
Watson	551987	861195	513584	595490	621483	845008	879962	832382	818267	873701	1001819	713525	759033.6	-0.15559971	-0.2877705
Wivel Rd											111923	309141		#DIV/0!	1.76208643
Wonderland											1521851	1913754		#DIV/0!	0.25751733
Woodland Manor											3943217	5185353		#DIV/0!	0.31500574
Total	1.01E+08	1.25E+08	1.11E+08	1.15E+08	1.25E+08	1.37E+08	1.42E+08	1.57E+08	1.43E+08	1.43E+08	192119803	1.82E+08	1.19E+08	0.25859733	0.10995686
# of meters		1770	1770	1798	1856	1909	1984	2074							
Gal/meter		70527.91	62738.53	63745.03	67269.42	71952.93	71346.6	75755.18	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Treasuer Island										8531522	11665595	11019910		0.367352156	-0.0553495
Emerald Lake											4640742	5121871		#DIV/0!	0.10367502
Emerald Lake Summer Usage											2787796	2616800		#DIV/0!	

Appendix M – Policy Recommendation Proposals

Name: Upgrade Well Reporting

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Information process improvement

Description of policy idea (a short abstract)**:**

1. *Identify the potential implementers and other key players.*
    a. Ecology
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
    a. See attached document "Proposed Improvements to the Department of Ecology's Well Reporting Processes"
3. *Identify who the action impacts (if different than primary implementer).*
    a. Well drillers, all users of well database information
4. *Describe benefits and challenges/obstacles.*
    a. Benefits: better well location data; streamlined data collection and uploading; improved data access
    b. Challenges: requires resources for development, roll-out, and training.

Description of purpose:

1. *How would this recommendation enhance the WRIA 14 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
    a. Accurate well data is critical for all parties to make water management decisions that are protective of the environment and beneficial to communities. Improvements in the quality of well data in Washington State are essential for monitoring and management of shared water resources in the State of Washington. This supports the goals of the Plan.
    b.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 14 members expressed or that you anticipate?*
    a. None anticipated, other than perhaps the allocation of limited resources.
2. *If you have discussed this with concerned members, what was the result of those discussions?*
    a. Concept has been discussed, with general support.
3. *Are there other potential downsides or objections to the proposal that you anticipate?*

a. None anticipated.

4. *In what ways does your proposal address those concerns?*
    a. Proposal stands by itself. Investment in this improvement in the short term will have long-term benefits.

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
    a. Platform development, testing, roll-out, and user training and support
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
    a. Not yet known.
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
    a. There may be a small cost to well drillers for technology.

Proposed Improvements to the Department of Ecology's Well Reporting Processes: The "Upgrade Well Reporting" Proposal

Developed by the Squaxin Island Tribe in consultation with Ecology's Well Construction and Licensing Office

Contributors: Ecology - Joe Witczak, Scott Malone, and Tara Roberts
Squaxin Island Tribe - Erica Marbet

Final Draft May 28, 2020

Purpose:
Accurate well data is critical for all parties to make water management decisions that are protective of the environment and beneficial to communities. The quality of well data in Washington State can be improved with changes to how the State collects information from drillers. These improvements are essential for monitoring and management of shared water resources in the State of Washington.

Background:
In 2018, at the request of the Squaxin Island Tribe, Ecology assigned staff to assess the accuracy of water well location reporting in Mason County. The project checked 187 water well reports (2.1% of the 8,910 water well reports from the county). Ecology uses the Public Land Survey system (PLS) to record well locations by township, range, section, quarter and quarter-quarter. Currently wells are mapped by 40-acre quarter-quarter centroids on the State Well Report Viewer. The results showed that 79% of well locations could be verified with the information on the report. Of those that could be verified, 33% had incorrectly reported PLS locations. Ecology performed a similar, statewide assessment of well location data and found a 24% error rate for all types of regulated wells.

As Tribes utilize Ecology's well report database frequently, tribal staff would benefit by improving well location data management and processes. In discussions between Ecology, Squaxin, and Mason County, all agreed that improvements to Ecology's well reporting processes could help reduce the error in water well location reporting.

Ecology is eager to expand their web-based well reporting options. In 2019, Ecology surveyed well drillers to determine their preferences regarding format and features. Of 133 respondents, 63% placed a high importance on a new well location mapping tool that would use recent aerial imagery to determine a well's PLS location and coordinates. Only 6% responded that this effort would be of low importance. These results showed drillers preferred to submit well reports from a web form in the current well report format.

We propose the following changes to Ecology's well data processes:

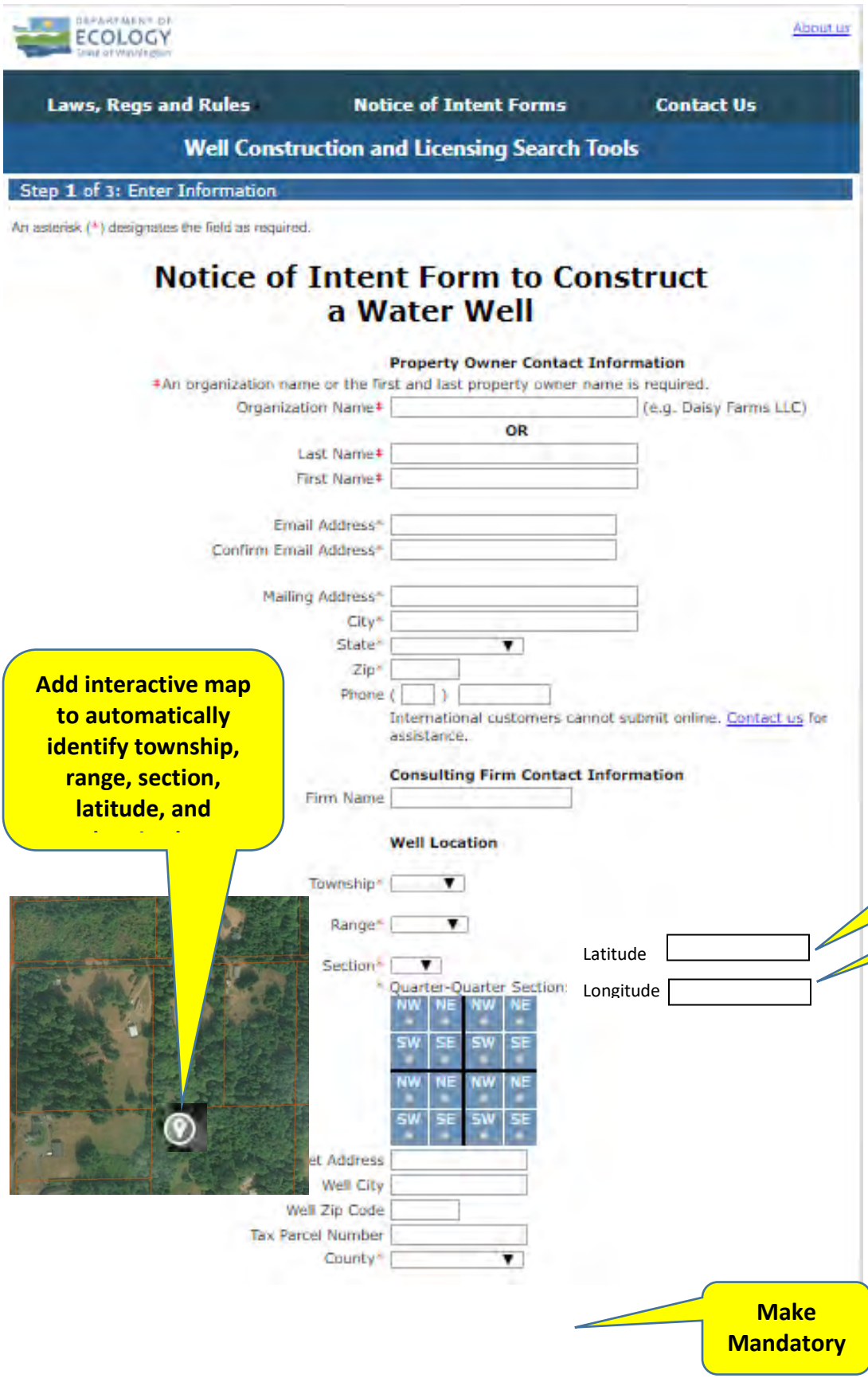
1. **New well location mapping tool for drillers**
   An interactive web-based mapping tool that provides an intuitive means of determining PLS location has been implemented in Oregon recently. Ecology is interested in developing their own web tool which provides the PLS and coordinates location (latitude/longitude) for a new well automatically. The Notice of Intent web form would shell into a new GIS application utilizing recent aerial imagery, a parcel overlay, and a tool that updates the quarter-quarter and coordinates on the NOI. The well driller need only click on the interactive map to generate a well location. When a driller finishes a well report, they can utilize the same tool to refine their coordinates and PLS location.

2. **Require coordinates on well reports**
   Coordinates can perfectly describe a well location within a parcel. Adding latitude and longitude on well reports will serve to verify a well's location on the ground accurately and easily. Ecology intends to require well coordinates on reports, though a WAC change may eventually be needed.

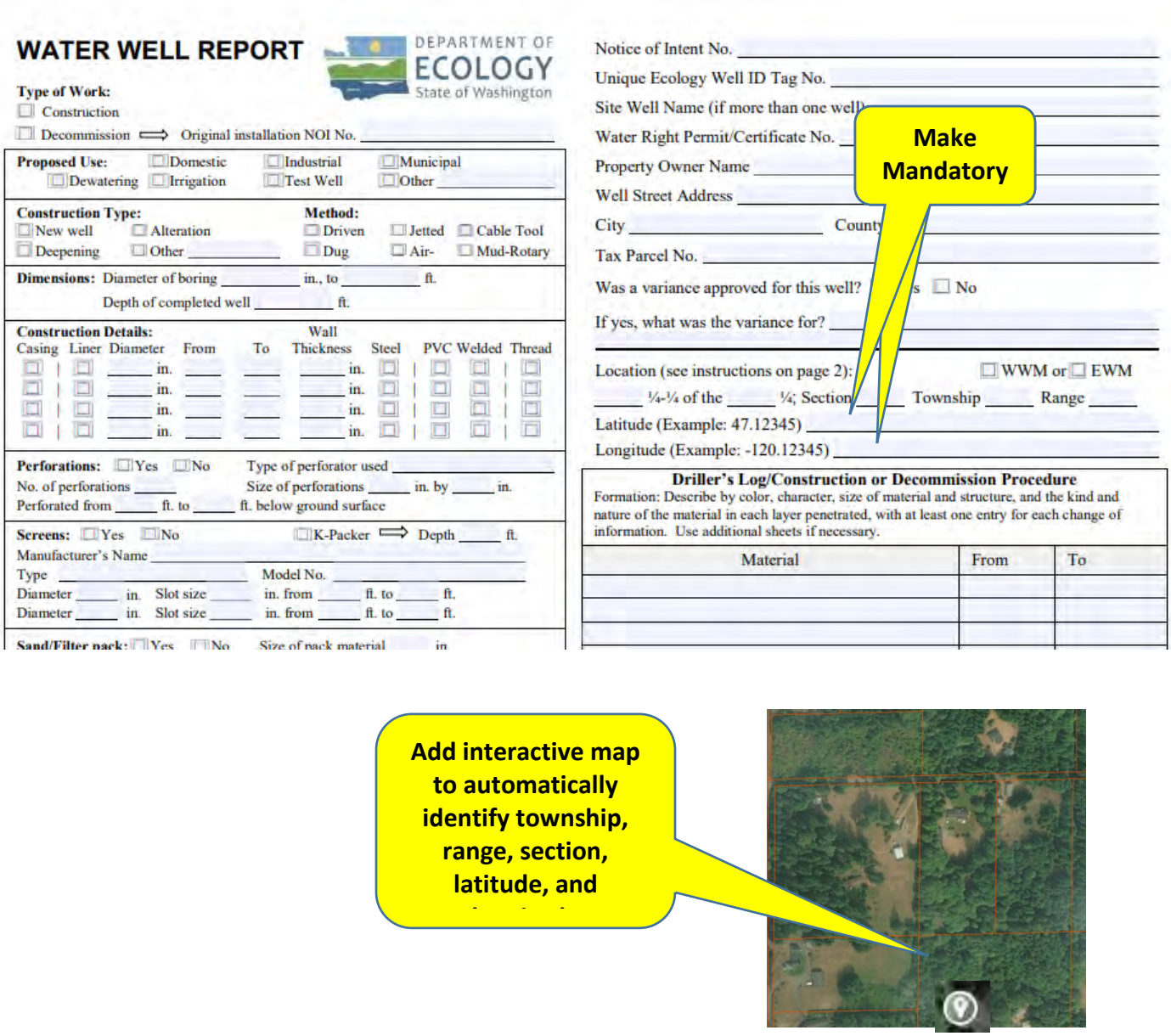
3. **New web-based well reporting application**

- Ecology is determining the best approach for implementing a new web-based well reporting application. According to a recent survey of drillers and their support staff, a web-form mimicking the current well report forms that uploads directly to Ecology's database is desired. The benefits of using a web-based well reporting process are numerous:
-
    - Less backlog of scanning and data entry - more time for Ecology staff to vet well reports
    - Legible text, fewer written responses
    - Digitizing all well report data, not just the fields that were captured by Ecology staff during the scanning process
    - A smart form format can eliminate out-of-range entries
    -
- By capturing digitized well location data, it would be feasible in the future to automate the process of verifying well locations and water right information. Tracking well location and permit-exempt wells is a need of users who download geospatial datasets from Ecology's GIS data page (https://ecology.wa.gov/Research-Data/Data-resources/Geographic-Information-Systems-GIS/Data)

The Well Construction and Licensing Office at Ecology needs more capacity to vet well reports. Automation from web-based reporting would free up staff to do more vetting, because the office's staff would not have to do as much scanning of paper documents and manual entry of data fields for each report. They need more automation, not FTEs.
https://appswr.ecology.wa.gov/wellconstruction/Wells/NoticeOfIntentForm.aspx?form=noiwaterwellform


DEPARTMENT OF ECOLOGY
About us
Laws, Regs and Rules
Notice of Intent Forms
Contact Us
Well Construction and Licensing Search Tools
Step 1 of 3: Enter Information
An asterisk (*) designates the field as required.
Notice of Intent Form to Construct a Water Well
Property Owner Contact Information
*An organization name or the first and last property owner name is required.
Organization Name*
(e.g. Daisy Farms LLC)
OR
Last Name*
First Name*
Email Address*
Confirm Email Address*
Mailing Address*
City*
State*
Zip*
Phone ( )
International customers cannot submit online. Contact us for assistance.
Consulting Firm Contact Information
Firm Name
Well Location
Township*
Range*
Section*
* Quarter-Quarter Section:
NW NE NW NE
SW SE SW SE
NW NE NW NE
SW SE SW SE
et Address
Well City
Well Zip Code
Tax Parcel Number
County*
Latitude
Longitude
Add interactive map to automatically identify township, range, section, latitude, and
Make Optional
Make Mandatory

https://fortress.wa.gov/ecy/publications/documents/ecy050120.pdf



Change this water well report into a web form.

RESOLUTION NO. 1193-0421

A RESOLUTION OF THE COUNCIL OF THE CITY OF SHELTON, WASHINGTON APPROVING THE WATERSHED RESTORATION AND ENHANCEMENT PLAN FOR WRIA 14 KENNEDY/GOLDSBOROUGH WATERSHED

WHEREAS, The Department of Ecology (Ecology) established the Watershed Restoration and Enhancement Committee to collaborate with tribes, counties, cities, state agencies, and special interest groups in the Kennedy-Goldsborough watershed, also known as a Water Resource Inventory Area (WRIA) 14.

WHEREAS, The WRIA 14 Committee met for over 2 years to develop a watershed plan.

WHEREAS, The watershed plan includes projects that provide an anticipated offset of 891 acre-feet per year to benefit streamflows and enhance the watershed.

THEREFORE, BE IT RESOLVED by the City Council of the City of Shelton that the Watershed Restoration and Enhancement Plan, a copy of which is attached hereto, is approved as written, and the City Engineer is authorized and directed to attend the final plan approval meeting of the WRIA 14 Committee and approve said plan in accordance with WRIA 14 Committee Operating Principals.

Passed by the City Council at its regular meeting held on the 20th day of April 2021.

_____
Mayor Dorcy

ATTEST:

_____
City Clerk Nault

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item F1)

Touch Date: 03/16/2021
Brief Date: 04/06/2021
Action Date: 04/06/2021

Department: Community Development

Presented By: Mark Ziegler, Director

APPROVED FOR COUNCIL PACKET:

ROUTE TO: **REVIEWED:**

- ☐ Dept. Head _____
- ☐ Finance Director _____
- ☐ Attorney _____
- ☒ City Clerk _____
- ☒ City Manager _____

PROGRAM/PROJECT TITLE:
Municipal Code Steering Committee Appointments

ATTACHMENTS:
Public Involvement Plan

Action Requested:

- ☐ Ordinance
- ☐ Resolution
- ☒ Motion
- ☐ Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:
The City sought letters of interest from the community specifically targeting developers, building advocacy, design professionals, and the business community to serve on the steering committee that will assist staff in writing and review of development-specific code updates.

As these code changes will shape how residential and commercial development look in the future, a broad spectrum of interests and backgrounds are beneficial to the process.

Eight individuals provided written interest in appointment to the committee including:

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
Hillary Browning, Department of Natural Resources

ANALYSIS/OPTIONS/ALTERNATIVES:
N/A

BUDGET/FISCAL INFORMATION:
N/A

PUBLIC INFORMATION REQUIREMENTS:
N/A

STAFF RECOMMENDATION/MOTION:
“I move to appoint Len Williams, Keith Fuller, John Allen, Nathan Stout, and Marty Crow to the City of Shelton’s development code steering committee.”

2021 DEVELOPMENT CODE UPDATES

PUBLIC INVOLVEMENT PLAN

Project:

The Shelton Municipal Code (SMC) contains the rules, regulations, or codes enacted into law by the City Council. It provides for flexibility in administration of municipal government to meet local needs. As time and conditions change, the SMC is updated to account for State or Federal requirements, public safety, and health.

Staff is undertaking a wholesale review of the SMC to determine whether codes are outdated or inaccurate, no longer meet State or Federal standards, meet the City Council's goals, and provide clear and definitive regulations.

Examining and bringing to consensus code changes that address design elements such as facades and landscapes, parking and pedestrian facilities, all levels of housing, will promote a vibrant, livable community.

Who is affected:

These changes will affect nearly every current and future City resident through either direct regulation of land use, building, streets, and utilities by developers or property owners and residents, as it shapes the vision of neighborhoods and City infrastructure.

Community Engagement:

Steering committee. A steering committee established by the City Council will represent stakeholders in development processes. The committee will be comprised of individuals representing local developers working in residential and commercial development, building advocacy, local design professional, and business community.

Media. Local and social media outlets will be provided regular updates on milestones and decision points the steering committee is considering.

Virtual document access. Virtual editions of documents will be regularly updated and available on the City of Shelton website at www.shetlonwa.gov.

Public workshops. Hosted forums to present draft recommendations to the general public for additional feedback will be conducted.

Public hearing. The City Council will conduct a public hearing prior to consideration of adoption of any code changes.

Council adoption. The City Council will consider code amendments for adoption and codification in the Shelton Municipal Code.

Timeline:

March 12 – Steering Committee Letters of Interest due

April 6 – City Council appoints steering committee

Aprill 27- Steering committee meeting (establish expectations, guidelines, timeframe)

April 27 – Chapter 12 Streets & Sidewalks

May 25 – Chapter 17 Permit Review & Processing

June 29 – Chapter 18 Building

July 27 – Chapter 19 Subdivisions

August 31 – Chapter 13, 14, & 15 Stormwater, Sewer, Water, Reclaimed Water

September 28 – Chapter 20 Zoning – Neighborhood residential

October 26 – Chapter 20 continued – Neighborhood residential

November 30 – Chapter 20 all other zones

December 28– Chapter 20 continued all other zones

January 25- Chapter 20 continued all other zones

February 22- Public Workshop

March 1– Public hearing

March 15 – Council adoption

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item F2)

Touch Date: 02/24/2021
Brief Date: 03/16/2021
Action Date: 04/06/2021

Department: Public Works

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:
Well 1 Rehab Design Contract Amendment No. 2

ATTACHMENTS:
- Resolution No. 1189-0221
- Contract Amendment No. 2
- Well 1 to High School Tank Figure

☐	Ordinance
☒	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:
Well 1 transmits potable water via a +/- 4700 linear foot gravity fed waterline to the High School Tank. The well was constructed in 1948 and the Water Department has been experiencing declining performance along with elevated levels of iron, hydrogen, sulfide, and sand production from the well. To keep up with the City's potable water demands, the Public Works Department determined that rehabilitation of the well and switching to a pressurized piping system is the most feasible and cost effective solution. On August 21, 2018, following a formal Qualification Based Selection Process, the City Council approved a $68,340 Contract with Gray & Osborne, Inc. for the pre-design efforts of the project. The original Contract had a term end date of June 30, 2019, which was extended to June 30, 2020 through Amendment No. 1. The purpose of this second Amendment is to add $102,500 to the Contract amount to complete the design and bid package for the project, and extend the Contract term to December 31, 2021.

ANALYSIS/OPTIONS/ALTERNATIVES:
N/A

BUDGET/FISCAL INFORMATION:
$265,000 was approved in the adopted 2021 Capital Water Budget for the Well 1 to High School Tank Pipe Pressurization Project, which are the efforts defined in Contract Amendment No. 2.

Contract	***End Date***	***Amount***	***Total Contract Amount***
Original	6/30/2019	$68,340	$68,340
Amend. No. 1	6/30/2020	$0	$68,340
Amend. No. 2	12/31/2021	$102,500	$170,840

PUBLIC INFORMATION REQUIREMENTS:
Information can be obtained through the Public Works Department.

STAFF RECOMMENDATION/MOTION:
Staff requests a reading of Resolution No. 1189-0221 and: *"I move to adopt Resolution No. 1189-0221, a resolution approving Amendment No. 2 to the Well 1 Rehabilitation Design Contract with Gray & Osborne, Inc. and authorizing the City Manager to execute said Amendment".*

RESOLUTION NO. 1189-0221

A RESOLUTION OF THE COUNCIL OF THE CITY OF SHELTON, WASHINGTON, AUTHORIZING THE CITY MANAGER TO APPROVE CONTRACT AMENDMENT NO. 2 TO THE PROFESSIONAL SERVICES AGREEMENT WITH GRAY & OSBORNE, INC. TITLED, WELL 1 REHAB PROJECT DESIGN SERVICES

WHEREAS, the City Council approved a Contract on August 21, 2018 with Gray & Osborne, Inc. for pre-design efforts for the rehabilitation of Well 1 and improving the pipeline from Well 1 to the High School Tank to a pressurized system; and

WHEREAS, the original pre-design Contract was for $68,340 and had a term end date of June 30, 2019; and

WHEREAS, Amendment No. 1 to the Contract extended the term date to June 30, 2020 and was executed by the City Manager; and

WHEREAS, the pre-design efforts have been completed and the project is now ready to commence the design and bid package preparation phase; and

WHEREAS, Gray & Osborne, Inc. has submitted Amendment No. 2 to the current contract to complete the design and bidding efforts for the rehabilitation of Well 1 and pipeline pressurization project; and

WHEREAS, Amendment No. 2 will add $102,500 to the budget, for a new not to exceed total of $170,840, and extend the Contract term deadline to December 31, 2021.

THEREFORE, BE IT RESOLVED by the City Council of the City of Shelton that the City Manager is authorized to sign Amendment No. 2 to the Well 1 Rehab Project Design Services Contract with Gray & Osborne, Inc.

Passed by the City Council at its regular meeting held on the 6th day of April 2021.

_____
Mayor Dorcy

ATTEST:

_____
City Clerk Nault

Amendment to Contract No.2

Agency City of Shelton
Name of Project Well 1 Rehab Project Design Services

City of Shelton desires to amend the agreement entered into with Gray & Osborne, Inc. executed on September 4, 2018 and identified as Well 1 Rehab Project Design Services.

All provisions in the basic agreement remain in effect except as expressly modified by this amendment as follows:

Section 1 of the Contract for Services: Scope of Services to be Performed by Consultant is hereby amended to include **Exhibit A-2**, attached hereto and incorporated herein by this reference as if fully set forth in this contract.

Section 6 of the Contract for Services: Compensation and Method of Payment is hereby amended to include **Exhibit B-2**, attached hereto and incorporated herein by this reference as if fully set forth in this contract.

Section 8 of the Contract for Services: Duration of Agreement is hereby amended to read:

This Agreement shall be in full force and effect for a period commencing on the date of the last signature fixed hereto and ending December 31, 2021, unless sooner terminated under the provisions hereinafter specified.

If you concur in this supplement and agree to the changes as stated above, please sign in the appropriate spaces below and return to this office for final action.

Sincerely,

Contractor Signature Date	City of Shelton Date
Print Name and Title	Print Name and Title

EXHIBIT A-2

SCOPE OF WORK

CITY OF SHELTON
PIPELINE PRESSURIZATION FROM WELL 1 TO HIGH SCHOOL TANK

PROJECT UNDERSTANDING

The City plans to pressurize the pipeline from Well 1 to the High School Tank in the northerly third of the City water system. The existing water system components include the following:

- Well 1 Pumphouse and Sand Trap located west of the intersection of 13th Street and Shelton-Springs Road
- 800 linear feet (LF) of 12-inch PVC pipe between Well 1 and the Shelton Springs site
- Shelton Springs Site located at the northwest corner of the intersection of 13th Street and K Street
- 1,100 LF of 24-inch steel pipe and 2,800 LF of 20-inch steel pipe between the Shelton Springs site and the High School Tank.
- High School Tank, 507,000-gallon welded steel reservoir located along the easterly extension of Birch Street from its intersection with 10th Street. A 20-inch pipe discharges into top of the tank. Tank dimensions are 60 feet in diameter and 24 feet in height.

The existing pipeline from Well 1 to the Shelton Springs site and continuing to the High School Tank is gravity fed. The City has completed a Draft Project Report that includes the following recommendations:

- Replace 800 LF of pipe between Well 1 and the Shelton Springs site with 12-inch high-density polyethylene (HDPE) pipe.
- Install piping, valves, and connections in and around the Shelton Springs site.
- Slipline 3,900 LF of pipe between the Shelton Springs site and the High School Tank with 12-inch HDPE pipe. Install intermittent isolation valves and pressure gauges along the pipeline.

- Install a pressure sustaining valve approximately 65 LF upstream of the High School Tank to maintain pressure in the upstream segments of the pipeline.

The estimated construction cost of the project is $940,000. The City plans to obtain approval from the Washington State Department of Health (DOH) of the Project Report and the Bid Documents (plans and specifications). The City is funding the project through its Water Capital Fund, with construction money allocated for initiation of the construction phase in late 2021 continuing into 2022.

SCOPE OF WORK

The proposed engineering services include the following tasks.

Task 1 – Project Management

A. Provide project management of the design work, including project budget control and scheduling, communication with the City, coordination of design staff assignments, project reporting, and documentation assistance to the City.

B. Oversee quality assurance/quality control (QA/QC) reviews of engineering products including constructability review, risk management assessment, and identification and pursuit of critical path items.

C. Manage and oversee the schedule of deliverables.

Task 2 – Final Project Report

A. Incorporate City comments on the Draft Project Report.

B. Prepare the Final Project Report. Submit to DOH for review and approval. The Project Report will meet the requirements of WAC Section 246-290-110.

Task 3 – Survey and Utilities

A. Obtain topographical survey at and between the Well 1 and Shelton Springs sites and at the area northerly of the High School Tank site for the proposed pressure sustaining valve vault.

B. Conduct research as required for establishing existing right-of-way and easements for the project limits.

C. Contact utility companies to obtain information on locations, extents, sizes, and types of underground utilities in the project corridor. Integrate existing utilities information into the previously obtained topographic survey.

Task 4 – 50 and 90 Percent Design

A. Prepare preliminary plans, drawings, sections, special details, standard details, etc., of water main plan and profile views, valves, fittings, appurtenances, vaults, connections to existing system, and related improvements at 50 and 90 percent levels of design in City-approved format.

B. Prepare project specifications to include proposal, contract, and bonding forms, and Special Provisions based on the Washington State Department of Transportation (WSDOT) *Standard Specifications for Road, Bridge, and Municipal Construction* (2020). Special Provisions only will be submitted at 50 percent design. Full project specifications will be submitted at the 90 percent design level.

C. Prepare a construction cost estimate at 50 and 90 percent design levels. Prepare takeoffs, calculations, and estimates for appropriate unit price bid items. Prepare estimates for appropriate lump sum bid items. Include construction contingency in the cost estimate.

D. Submit 90 percent design level documents to DOH for review and approval.

Task 5 – Final Design

A. Prepare and submit final (100 percent) project plans, specifications, and cost estimates to include evaluation and incorporation of all previous and pertinent City and DOH comments.

B. Submit final plans, specifications, engineer's cost estimate (construction), and solicit authorization to bid the project from both the City and DOH.

Task 6 – Project Quality Assurance/Quality Control

A. Perform internal QA/QC review of the project elements at the 50 and 90 percent design levels.

DELIVERABLES

1. Final Project Report:
   - Report (four hard copies, one PDF copy)

2. 50 Percent Design Submittal:
   - 50 Percent Plans (three half-size (11″ x 17″), one PDF copy)
   - 50 Percent Special Provisions (one PDF copy)

3. 90 Percent Design Submittal:
   - 90 Percent Plans (three half-size (11″ x 17″), one PDF copy)
   - 90 Percent Specifications (one PDF copy)

4. Final (100 Percent) Design Submittal:
   - Final (100 Percent) Plans (two full-size (22″ x 34″), six half-size (11″ x 17″), one PDF copy)
   - Final (100 Percent) Specifications (six hard copies, one PDF copy)

ASSUMPTIONS

1. Right-of-way or easement acquisition is not anticipated or included. The existing and proposed pipeline routes are assumed to be within existing City right-of-way, existing City easements, or across City-owned property.

2. Any required Temporary Construction Easements will be obtained by the City.

3. Survey along the pipeline alignment from Shelton Springs to the High School Tank is not required, as the existing pipe will be sliplined.

4. Review fees to DOH will be paid by the City.

BUDGET

Based on the scope of work described above, the total estimated cost for completing the engineering services tasks is $102,500, as shown in the attached Exhibit B-2.

SCHEDULE

Milestone	Date
Notice to Proceed	April 7, 2021
Final Project Report	May 14, 2021
50% Design Submittal	June 18, 2021
90% Design Submittal	August 6, 2021
Final (100%) Design Submittal	September 17, 2021

EXHIBIT B-2

ENGINEERING SERVICES
SCOPE AND ESTIMATED COST

City of Shelton - Pipeline Pressurization from Well 1 to High School Tank

Tasks	Principal/ Project Manager Hours	Project Engineer Hours	Civil Engineer Hours	AutoCAD Technician Hours	Professional Land Surveyor Hours	Survey Crew Hours
1 Project Management	24					
2 Final Project Report	8	12	24	12		
3 Survey and Utilities	2	4	12	24	8	40
4 50% and 90% Design	32	80	160	200		
5 Final Design	12	24	48	64		
6 Project Quality Assurance/Quality Control	12	16	16	16		
Hour Estimate:	90	136	260	316	8	40
Estimated Hourly Rates:	$180	$135	$105	$95	$155	$200
Direct Labor Cost	$16,200	$18,360	$27,300	$30,020	$1,240	$8,000

Total Fully Burdened Labor Cost:	$	101,120
Direct Non-Salary Cost:		
Mileage & Expenses (mileage @ current IRS rate)	$	820
Printing	$	560
TOTAL ESTIMATED COST:	**$**	**102,500**

Actual labor cost will be based on each employee's actual rate. Estimated rates are for determining total estimated cost only. Fully burdened billing rates include direct salary cost, overhead, and profit.

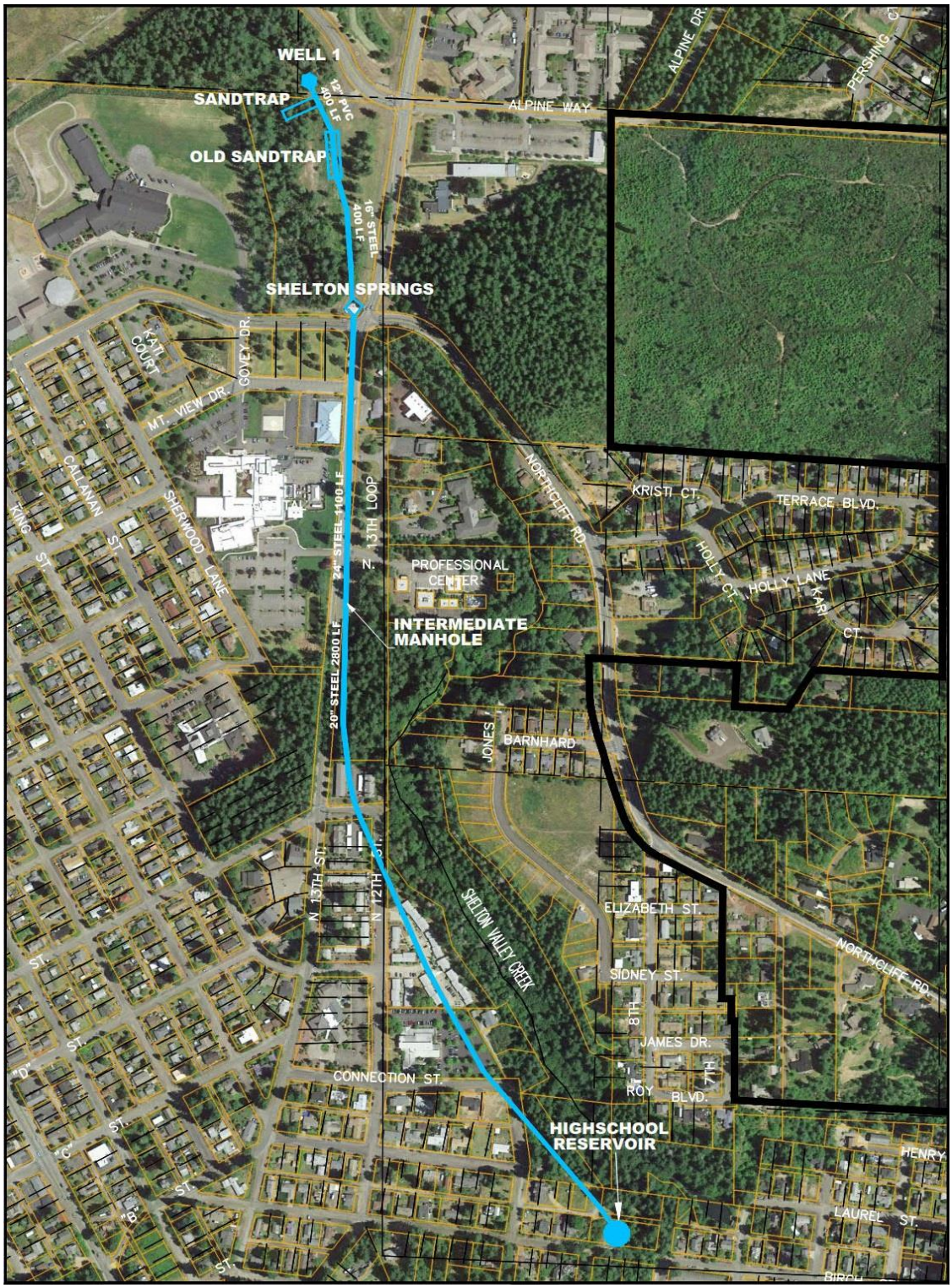


FIGURE 1

Water Transmission Main from Well 1 to High School Reservoir

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item F3)

Touch Date: 02/26/2021
Brief Date: 03/16/2021
Action Date: 04/06/2021

Department: Community Development Department

Presented By: Jason Dose, Senior Planner

APPROVED FOR COUNCIL PACKET:

ROUTE TO:		**REVIEWED:**
☒	Dept. Head	Community Development
☐	Finance Director	
☐	Attorney	
☒	City Clerk	
☐	City Manager	

PROGRAM/PROJECT TITLE:
Shelton Veterans Village NEPA Certification

ATTACHMENTS:

1) **NEPA Environmental Assessment (EA) for the Shelton Veterans Village.**

Action Requested:

- ☐ Ordinance
- ☐ Resolution
- ☒ Motion
- ☐ Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION

In early 2019 the project proponent, Quixote Communities, was awarded 3 million dollars in the State of Washington Capital Budget (provided through the State Department of Commerce's Housing Trust Fund) with the specific intent of constructing a housing facility for homeless veterans. On May 19, 2019 the Council entered into a lease agreement with Quixote Communities to lease just shy of 3 acres of City of Shelton (public) property for the express reason of providing a housing facility for homeless veterans.

In late 2019 Quixote Communities applied for Land Use Permitting (Site Plan Review and Planned Unit Development) through the City of Shelton Department of Community Development to authorize the construction of a 30-unit multifamily "tiny" home project that also included on-site parking for 30 vehicles and provision of a 2,160 square foot Community Building. A Public Hearing on the proposal was held before the City of Shelton Hearings Examiner on January 6, 2020 which resulted in a decision for approval of the proposal, subject to compliance with 10 conditions, on January 22, 2020. Additionally, the City processed a minor Amendment to the Planned Unit Development approval on June 23, 2020 that authorized the amendment of the site plan to include seven "tiny" four plex units and one duplex unit, rather than 30 stand-alone units.

During the summer of 2020 the applicant informed the City that they are coordinating and attempting to secure several federal project based vouchers that will aid in future low-income residents to pay rent at the facility. To avail themselves of any federal funding requires that the project be evaluated pursuant to the National Environmental Policy Act (NEPA). To that end, City staff worked with the project proponent to prepare and route an Environmental Assessment (EA) that is attached to this report. The EA resulted in a Finding of No Significant Impact (FONSI) with no required mitigation. Staff agrees with this assessment and is prepared to sign the document certifying the results. Staff would sign (on page 9) as "reviewer" but

the document also requires certification by the highest elected official (Mayor) on the same page.

ANALYSIS/OPTIONS/ALTERNATIVES

The City of Shelton City Council may elect to sign the document or not, certifying the findings in the document. Though, if the Council opts to not sign the document the Quixote Communities project would not be able to take advantage of the federally funded project vouchers.

BUDGET/FISCAL INFORMATION

The applicant's staff performed most of the documentation and drafting of the attached document with minimal physical work performed by City staff. City staff reviewed the documents in their development phase and also assisted in preparation of required "consultation" letters.

PUBLIC INFORMATION REQUIREMENTS

All required consultation and notification was performed by Quixote Communities staff.

STAFF RECOMMENDATION

Staff recommends: "I move that we authorize the mayor to sign the Environmental Assessment for the Shelton Veterans Village as Certifying Officer for the City of Shelton".

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Environmental Assessment
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58

Project Information

Project Name: Shelton Veterans Village

Responsible Entity: City of Shelton

Grant Recipient: Bremerton Housing Authority (anticipated)

State/Local Identifier: N/A

Preparer: Paul Trautman, Senior Housing Developer
Community Frameworks, 907 W Riverside, Spokane, WA 99201

Certifying Officer Name and Title: Kevin Dorcy, Mayor

Grant Recipient: Quixote Communities via Bremerton Housing Authority (anticipated)

Consultant (if applicable): Community Frameworks

Direct Comments to:
Jason Dose, City of Shelton Senior Planner
525 W Cota St, Shelton, WA 98584
Jason.dose@sheltonwa.gov
360-432-5102

Project Location:
The project area is bordered by N. 13th St. and Shelton Springs Rd. and more commonly described as 2471 N 13th St., Shelton, WA.

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**
Full site development to newly construct approximately 30 living units; a community building containing kitchen, community, and office spaces; and associated parking/access facilities. This project to be constructed on vacant land previously utilized for materials storage. Project site control and construction activities are funded by state, local, and private sources. This project plans to utilize federal project-based rent assistance funding.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
There is statewide need to increase the supply of quality housing affordable to households having incomes below area median. Such households, including veterans, have experienced homelessness and require additional rent and services assistance to succeed in housing. This affordable housing need is present in Mason County and the City of Shelton. Quixote Communities proposes to utilize federal project-based rental assistance to support housing occupancy by low-income residents requiring such support.

Existing Conditions and Trends [*24 CFR 58.40(a)]:*
Existing site conditions include vacant land consisting of native trees, shrubs, and grasses. The site is utilized for municipal storage of excavation fill and associated material. The project is located in a predominantly residential area and will not affect nearby land uses. This site is zoned for residential construction. An April 2019 Phase 1 Environmental Site Assessment found no recognized environmental condition. This area is trending toward continuing commercial and residential infill development.

Funding Information

Grant Number	HUD Program	Funding Amount
To Be Determined	Federal Project-Based Vouchers	To Be Determined

Estimated Total HUD Funded Amount:
The project estimates a total of $3,500,000 of federal funds. This total amount is an estimated average of annual voucher payments times 30 housing units times 15-year contract period. Actual funding will vary based upon actual federal project-based voucher funding availability and payments.

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:**
Total development costs for onsite construction and development are estimated at $4,305,000 which does not include federal funds. Any federal funding, such as project-based rent assistance, is in addition to these total development costs.

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where

applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	Project site is located further than 2,500 feet from a civilian airport and further than 15,000 feet from a military airport. Project site is outside all Sanderson Field airport hazard zones. Responsible Entity (RE) determines that the proposed project complies with this regulation.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Per Dept. of Ecology, concurrence is no longer required under NEPA Part 58 in Washington (see: https://www.hud.gov/states/shared/working/r10/environment#CoastalZoneManagement). Concurrence can be triggered separately under local permitting, although it was not a requirement for this project under SEPA. Note that all storm water will be retained onsite. RE determines that the proposed project complies with this Act.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	Subject property is not located in a 100-year flood hazard zone per FEMA map panel 53045C0605E dated 6/3/2019. RE determines that the proposed project complies with this Act.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	EPA Green Book does not list any area of Mason County as nonattainment for ozone, particulate, sulfur dioxide, lead, carbon monoxide, nitrogen dioxide, or multi-pollutants. RE determines that the proposed project complies with this Act.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	This project does not impact the Mason County coastal zone in that there are no known onsite soil contaminants and storm water runoff is retained onsite via permeable pavement and swale, which will not discharge to surface waters. RE determines that the proposed project complies with this Act.

Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	Project site has no identified past use. NEPAssist-identified sites within 1 mile of project site were reviewed for potential impact to project site. No underground storage tank was identified. EPA radon map shows Mason County at Zone 3, the lowest radon predictive score. An April 2019 Phase 1 ESA was reviewed which identified no recognized environmental condition. RE determines that this compliance review identified no known contaminated or toxic site anticipated to impact project site.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	Project site has no identified endangered species and is not located within a locally identified critical area. RE determines that the proposed project complies with this Act.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	Aerial photography was reviewed to identify above ground tanks within 1 mile of project site that store explosive or flammable material. Only water storage tanks were observed east and south of the project site. RE determines that the proposed project complies with this regulation.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	Project site is not farmland. The project site is committed and zoned by City of Shelton for urban development and listed by US Census as Urban Cluster 81415. RE determines that the proposed project complies with this regulation.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☐ No ☒	Subject property is not located in a 100-year or 500-year flood hazard zone per FEMA map panel 53045C0605E dated 6/3/2019. RE determines that the proposed project complies with this Act.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☒	Project new construction involves no existing structures but does includes ground disturbance. 1/23/2020 and 11/25/2020 DAHP/SHPO letters determined "No Historic Properties Affected". December 2020 THPO consultations returned 2 responses but no concern or comment. RE determines that the proposed project complies with this Act.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	These noise generators are within NEPA-applicable distance of the project site and were considered: Sanderson Field, 13th St, Wallace Kneeland Blvd, and Shelton Springs Rd. Military airfield, railroad, highway, and other arterials noise generators are further than NEPA-applicable distances from project site. HUD's Noise Calculator determined Combined DNL at 64dB which is within HUD's acceptable noise standard for new housing construction. RE determines that the proposed project complies with this Act.

Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	EPA has no mapped sole source aquifer in the City of Shelton. RE determines that the proposed project complies with this Act.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	National Wetland Inventory identifies no wetland on project site. RE determines that the proposed project complies with this regulation.
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	There are no Designated Wild and Scenic Rivers within proximity of project site. RE determines that the proposed project complies with this Act.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	This review of the proposed action identified no adverse environmental impact. There is no identified environmental justice concern. RE determines that the proposed project complies with this Executive Order.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	Project will comply with City of Shelton zoning and land use codes. The City of Shelton Comprehensive Plan supports equal opportunity to a mix of housing types including residential buildings with shared living facilities.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	Site is flat with gravelly loam soil that is suitable for the proposed development. All storm water will be retained onsite via permeable pavement, swale, and roof drainage to below-grade downspout infiltration or lawn/landscape areas. No Geohazards were identified onsite.
Hazards and Nuisances including Site Safety and Noise	2	There are no identified hazards or nuisance. There is no identified safety hazard. Noise assessment identified no excess ambient noise.
Energy Consumption	2	Project will comply with building and energy codes and includes Washington State Commerce Evergreen Sustainable Development Standards energy conservation features.

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	Project will be available to area residents and will not impact employment or income patterns.
Demographic Character Changes, Displacement	2	Project will be available to area residents. Site is vacant and project will not displace any existing use or resident.

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	Elementary, middle, and high schools are located nearby. A YMCA is being constructed nearby.
Commercial Facilities	2	Project is served by existing commercial facilities in the City of Shelton. A YMCA is being constructed nearby.
Health Care and Social Services	2	Project is served by Mason General Hospital as well as existing healthcare and social services in the City of Shelton.
Solid Waste Disposal / Recycling	2	Project served under an existing City of Shelton municipal waste disposal contract with Mason County Garbage & Recycling.

Waste Water / Sanitary Sewers	2	Project served by City of Shelton municipal wastewater system
Water Supply	2	Project served by City of Shelton municipal water supply
Public Safety - Police, Fire and Emergency Medical	2	Project served by City of Shelton municipal emergency services and Central Mason Fire and EMS
Parks, Open Space and Recreation	2	Project is served by Shelton Metropolitan Park District as well as nearby schools, playgrounds, trails, and open spaces.
Transportation and Accessibility	2	Project is served by Mason Transit Authority including a bus route along N. 13th St. with a stop near the project site.

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	Shelton Creek is near the site. Project development will remain 200 feet from this creek. No project storm water or erosion/sediment will discharge to this creek.
Vegetation, Wildlife	2	Site vegetation is primarily grasses, shrubs, and trees. No wildlife or endangered species are identified at this site.
Other Factors	2	None

Additional Studies Performed:
4/24/2019 Phase 1 Environmental Site Assessment (as reference only)
5/2019 Shelton Veterans Village Traffic Impact Analysis
5/2019 YMCA Traffic Impact Analysis (traffic count data)
6/3/2019 Geotechnical Report, Materials Testing & Consulting, Inc.
8/22/2019 SEPA, Olympic Engineering
8/22/2019 Preliminary Stormwater Site Plan Report, Olympic Engineering
12/9/2019 Mitigated Determination of Nonsignificance, City of Shelton
9/2/2020 Erosion Control Plan, Olympic Engineering

Field Inspection (Date and completed by)**:**

January 14, 2021, Jason Dose, Senior Planner, City of Shelton

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]**:**
Department of Ecology, Sanders Field, City of Shelton Planning.

List of Permits Obtained:

City of Shelton building permits have been requested. Labor and Industries modular housing permits are planned.

Public Outreach [24 CFR 50.23 & 58.43]**:**
Quixote Communities performed monthly open house public meetings during project concept and design phases. Quixote Communities has discussed this project at Shelton City Council public meetings. Quixote Communities initiated EO05-05 consultation with affected tribes, per Washington State Commerce.

City of Shelton received and responded to public comments related to this project's SEPA checklist that did not result in mitigation. City of Shelton also initiated Section 106 government-to-government consultation with affected tribes that did not result in mitigation. Public comment will be sought in a NEPA combined Finding of No Significance and Notice of Intent and Request for Release of Funds process.

Cumulative Impact Analysis [24 CFR 58.32]**:**
The Responsible Entity has evaluated the proposed project in its entirety at its identified site. This includes consideration of multiple reviews and studies related to the proposed project. Responsible Entity notes that the proposed project is intended to occur over multiple years. Responsible Entity finds that the proposed project complies with all federal NEPA laws and authorities. No formal consultation or mitigation was required.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]:
Quixote Communities considered an alternative of constructing 31 structures including 30 individual living units and 1 community building. This alternative was rejected due to site constraints and excess costs. There were no site or design modifications proposed or selected due to environmental impact. Adverse environmental impacts are not mapped or observed.

No Action Alternative [24 CFR 58.40(e)]:
If the project chose to perform no action then this site could remain undeveloped or could be developed as market-rate housing or commercial facility. In such case, the project would not expand the supply of needed affordable housing.

Summary of Findings and Conclusions:
This project complies with all NEPA laws and authorities without any formal consultation or mitigation required. There are no environmental impacts mapped or observed. The Responsible Entity finds no significant environmental impact under NEPA. This NEPA finding is valid for 5 years. Responsible Entity will re-evaluate findings under this NEPA per 24 CFR 58.47 if there is a substantial change to the project, new environmental conditions are discovered that may affect the project, or the project undertakes an alternate not considered by this NEPA.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]
Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

There are no required mitigation measures.

Law, Authority, or Factor	Mitigation Measure
N/A	N/A

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: _____Date:2/11/2021

Name/Title/Organization: Paul Trautman, Senior Housing Developer, Community Frameworks

Reviewer: _____Date: _____

Name/Title: Jason Dose, Senior Planner, City of Shelton_____

Certifying Officer Signature: _____Date:_____

Name/Title: Kevin Dorcy, Mayor_____

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Airport Hazards (CEST and EA)

General policy	Legislation	Regulation
It is HUD's policy to apply standards to prevent incompatible development around civil airports and military airfields.		24 CFR Part 51 Subpart D
References		
https://www.hudexchange.info/environmental-review/airport-hazards		

1. **To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?**

   ☒No → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within the applicable distances to a military or civilian airport.*

   ☐Yes → *Continue to Question 2.*

2. **Is your project located within a Runway Potential Zone/Clear Zone (RPZ/CZ) or Accident Potential Zone (APZ)?**

   ☐Yes, project is in an APZ → *Continue to Question 3.*

   ☐Yes, project is an RPZ/CZ → *Project cannot proceed at this location.*

   ☐No, project is not within an APZ or RPZ/CZ

   → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within either zone.*

3. **Is the project in conformance with DOD guidelines for APZ?**

   ☐Yes, project is consistent with DOD guidelines without further action.

   Explain how you determined that the project is consistent:

   → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.*

☐No, the project cannot be brought into conformance with DOD guidelines and has not been approved. → *Project cannot proceed at this location.*

☐Project is not consistent with DOD guidelines, but it has been approved by Certifying Officer or HUD Approving Official.

Explain approval process:

If mitigation measures have been or will be taken, explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

→ *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.*

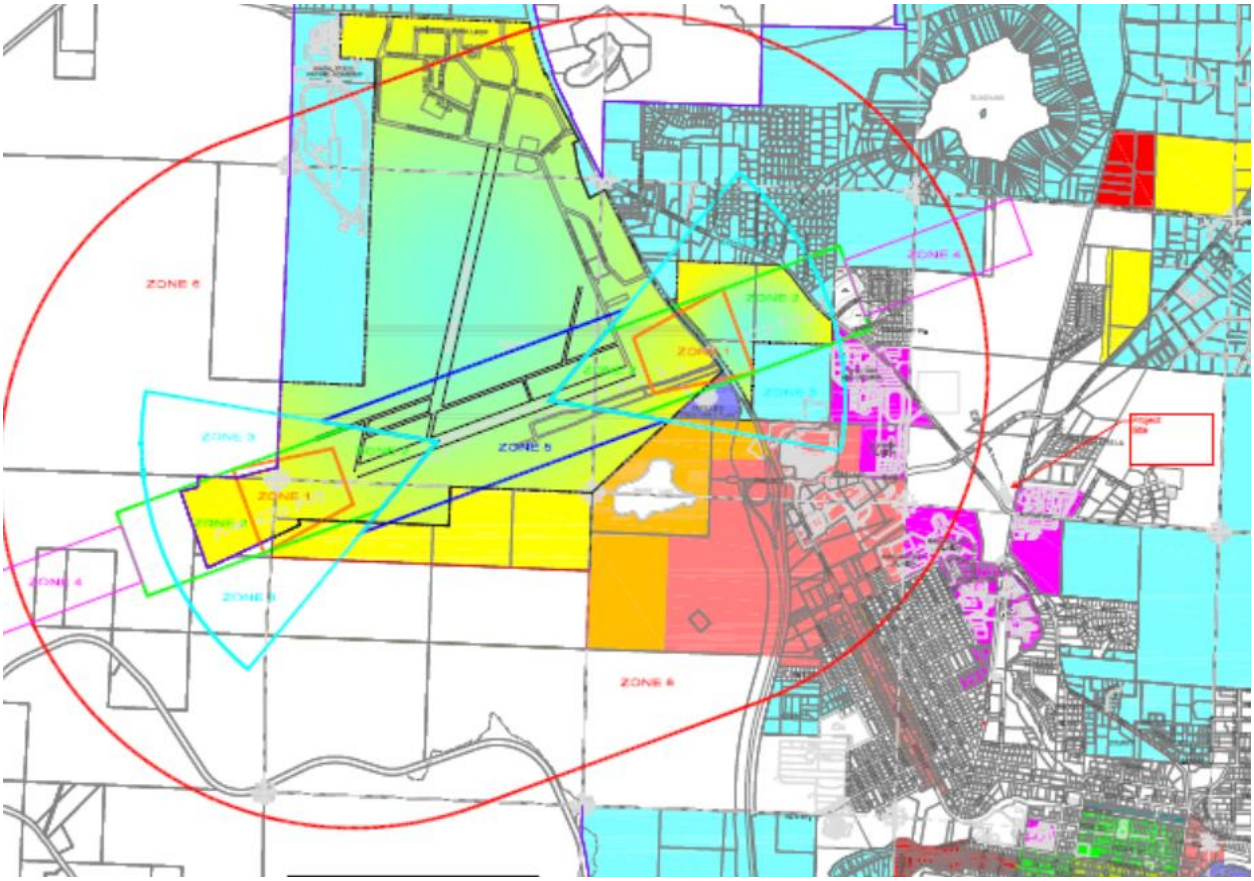
<u>Worksheet Summary</u>

Compliance Determination

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

Project site is located southeast of Sanderson Field and outside all airport accident zones.



Coastal Zone Management—Washington State

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Ensure that projects are consistent with the Washington Coastal Zone Management Program	Coastal Zone Management Act 16 U.S.C. 1451-1464	15 CFR Part 930

1. Is the project located in Callam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum or Whatcom Counties?

☐ No: Stop here. The CZM review is complete. Record your determination on the EA, Statutory Worksheet or HUD Form 4128.
☒ Yes: PROCEED to #**2**

2. Is the project located on tribal trust lands?

☐ Yes: Tribal Trust land is excluded from the state coastal zone. Proceed to #3.
☒ No: PROCEED to #**4**

3. Will the project impact the coastal zone beyond the excluded tribal trust land, for example through water runoff from increased impervious surfaces, or increased sediment loads in waterbodies?

☐ Yes: PROCEED to #**4**
☒ No: The Coastal Zone Management review is complete. Document that your project will have no impact on coastal zones outside of the excluded tribal trust land. Record your determination on the Statutory Worksheet , Environmental Assessment form or HUD Form 4128.

4. Does the project include new construction or major rehabilitation of existing structures? Major rehabilitation means work that exceeds the categorical exclusion threshold at 24 CFR Part 58.35(a) and therefore requires a full Environmental Assessment.

☐ No: STOP here. The Costal Zone Management review is complete.
☐ Yes: PROCEED to #**4**

4. Does the project comply with the enforceable policies of the Coastal Zone Management Program?

- Complete the attached "Certification of Consistency with Washington's Coastal Zone Management Program," and send it to the Department of Ecology (DOE) at the following address: Federal Consistency Coordinator, Shorelines & Environmental Assistance Program, Department of Ecology, P.O. Box 47690, Olympia, WA 98504-7690 telephone number: (360) 407-6068 or email it toecyrefedpermits@ecy.wa.gov Be sure to identify the Federal Program, i.e. CDBG, Section 202, SHOP, etc. The Applicant is HUD or the Responsible Entity. The first certification on the form should be signed by the lender or non-profit organization that is developing the project. HUD (under Part 50) or the responsible entity (under Part 58) signs the determination that the action will not affect coastal resources (once it has been determined that the project will comply with all enforceable policies of the CZM Program). Ecology has 6 months to concur with a determination, however, they often do so within two weeks if all of the information is submitted.

☐ Yes: STOP here. The Coastal Zone Management Review is complete. ☐ You should have a mechanism in place (i.e. condition to the contract or FIRM Commitment) to assure the recipient has completed all actions prior to releasing funds. Attach a copy of the Certification and Consistency determination. Record your determination on the EA, Statutory Worksheet or 4128.

☐ **No: If the project will not comply will all enforceable policies as outlined on the Certification of Consistency, work with Department of Ecology to mitigate issues. Do not initiate the Project until CZM has been mitigated.**

DISCLAIMER: This document is intended as a tool to help HUD Region X grantees and HUD staff complete NEPA requirements. This document is subject to change. This is not a policy statement, and the Coastal Zone Management Legislation and Regulations take precedence over any information found in this document.

Floodplain Management

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Avoid the adverse impacts associated with the occupancy and modification of floodplains. Avoid floodplain development whenever there are practicable alternatives.	Executive Order 11988, May 24 1977	24 CFR Part 55

1. Is the Project located in a floodway or a 100 or 500-year flood plain?

☐ For projects in areas mapped by FEMA, maintain the FEMA map panel that includes your project site. Make sure to include the map panel number and date. If FEMA information is unavailable or insufficiently detailed, other Federal, state, tribal or local data may be used as 'best available information.' However, a base flood elevation from an interim or preliminary or non-FEMA source cannot be used if it is lower than the current FIRM and FIS. Include documentation, including a discussion of why this is the best available information for the site.

☒ No: STOP here. The Floodplain Management regulations do not apply. Record your determination that the project is not in a floodplain or floodway.

☐ Yes—Floodway. **STOP**. **The National Flood Insurance Program prohibits federal financial assistance for use in a floodway.** The only exception is for functionally dependent uses, such as a marina, a port facility, a waterfront park, a bridge or a dam. If your project is a functionally dependent use in a floodway, proceed to #3

☐ Yes—500-year flood plain (Zone B or X on FEMA maps or best information). **PROCEED to #2**

☐ Yes—100 Year flood plain (Zone A or V on FEMA maps or best information). **PROCEED to #3**

☐ Yes—Flood prone area. **PROCEED to #3**

2. For projects in the 500-year flood plain: Does your project involve a critical action, defined as an activity for which even a slight chance of flooding would be too great because it might result in loss of life, injury or property damage? Specific examples include:

- Structures or facilities that produce, use or store highly volatile, flammable, explosive, toxic or water-reactive materials.
- Structures or facilities that provide essential and irreplaceable records or utility or emergency services that may become lost or inoperative during flood and storm events (e.g., data storage centers, generating plants, principal utility lines, emergency operations centers including fire and police stations, and roadways providing sole egress from flood-prone areas).
- Structures or facilities that are likely to contain occupants who may not be sufficiently mobile to avoid loss of life or injury during flood or storm events, e.g. persons who reside in hospitals, nursing homes, convalescent homes, intermediate care facilities, board and care facilities, and retirement service centers. Housing for independent living for the elderly is not considered a critical action.

☐ No: STOP here. The project can proceed without further analysis. Record your determination and attach flood plain map and documentation that project does not involve a critical action.

☐ Yes: PROCEED to #3

3. Does your project meet one of the categories of proposed action for which Part 55 does not apply? (Below are several common exemptions—please see 24 CFR 55.12(c) for additional categories of proposed action)

- The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands but only other certain further conditions (see 24 CFR 55(c)(3).

- A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain.
- Approval of a project site, an incidental portion of which is situated in an adjacent floodplain, but only with certain further conditions (see 24 CFR 55.12(c)(6)).
- A project on any site in a floodplain for which FEMA has issued a final Letter of Map Amendment or Letter of Map Revision that removed the property from a FEMA-designated floodplain location.
- A project on any site in a floodplain for which FEMA has issued a conditional LOMA or LOMR if the approval is subject to the requirements and conditions of the conditional LOMA or LOMR.
- Special Projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

☐ Yes: Stop here. Record your determination that the project is exempt from floodplain management regulations per 24 CFR 55.12(c). Maintain copies of all of the documents you have used to make your determination. Please note that you may still have to maintain flood insurance on the project per the Flood Disaster Protection Act.
☐ No: Proceed to #4.

4. **Does your project meet one of the categories of proposed action for which the 8-step decision making process does not apply? (**Below are several common exemptions—please see 24 CFR 55.12(b) for additional categories of proposed action)
   - Financial assistance for the purchasing, mortgaging or refinancing of existing one-to-four family properties under certain conditions (24 CFR 55(b)(1))
   - Financial assistance for minor repairs or improvements on one-to-four-family properties that do not meet the thresholds for 'substantial improvement'[1]
   - Disposition of individual HUD-acquired one-to-four-family properties.
   - HUD guarantees under the Loan Guarantee Recovery Fund Program under certain conditions (see 24 CFR 55.12(b)(4).
   - Leasing an existing structure in the floodplain but only under certain conditions (see 24 CFR 55.12(b)(5))

☐ Yes: Stop here. Record your determination that the project is exempt from the 8-step process as per 24 CFR 55.12(b). Maintain copies of all of the documents you have used to make your determination. Please note that you may still have to maintain flood insurance on the project per the Flood Disaster Protection Act. Please also note that notification of floodplain hazard requirements at 24 CFR 55.21 may apply.
☐ No: Proceed to #5.

5. **Does your project meet one of the categories of proposed action for which a limited 8-step process applies?** (please see 24 CFR 55.12(a) for more details)
   - Disposition of acquired multifamily housing projects or acquired one-to-four family properties where communities are in good standing in the NFIP program.
   - HUD's actions under the National Housing Act for purchase or refinance of existing multifamily housing projects, hospitals, nursing homes, assisted living facilities, board and care facilities, and intermediate care facilities, in communities that are in good standing under the NFIP.
   - Actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing multifamily housing projects, nursing homes, assisted living facilities, board and care facilities, intermediate car facilities and one-to-four family properties in communities in the Regular Program of the NFIP and in good standing, units are not increased more than 20 percent, the action does not involve a conversion from nonresidential to residential land use, the action does not meet the thresholds for 'substantial improvement'[1] and the footprint of the structure and paved areas is not significantly increased.
   - Actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing nonresidential buildings and structures in communities in the Regular Program of the NFIP and in good standing, the action does not meet the thresholds for 'substantial improvement'[1] and the footprint of the structure is not significantly increased.

☐ Yes: Complete the 5-step decision-making process for floodplains. You do not have to publish the notices in steps 2 or 7 or do an analysis of alternatives in Step 3. Analyze potential direct and indirect impacts (step 4); design or modify to minimize potential impacts (step 5); reevaluate the proposed action to determine if action is still practicable (step 6).

- If still practicable, document your analysis in the file and move forward.
- If not still practicable, either reject or modify project.

☐ No: Proceed to #6.

6. Are there practicable alternatives to locating your project in the floodplain?

HUD strongly discourages use of funds for projects that do not meet an exemption in Part 55.12. Reject the Project Site or Request a Letter of Map Amendment or Revision (LOMA/R) from FEMA. If you decide to consider the project you must determine if there are alternatives by completing the 8-step decision-making process described in 24 CFR Section 55.20. Please note that requesting a LOMA/R or completing the 8 step process take time and resources. The 8-step decision-making process requires two public notice and comment periods.

You must also maintain flood insurance on the project per the Flood Disaster Protection Act.

☐ Yes: Reject or modify project.

☐ No: Document your analysis, including floodplain notices, in your Environmental Review Record. You must notify any private party participating in a financial transaction for the property of the hazards of the floodplain location before the execution of documents completing the transaction. (24 CFR Section 55.21)

DISCLAIMER: This document is intended as a tool to help HUD Region X grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement, and the Floodplain Executive Order and Regulations take precedence over any information found in this document.

[1] Substantial Improvement means any repair, reconstruction, modernization or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either before the improvement or repair started or if the structure has been damaged before the damage occurred OR any repair reconstruction etc. that results in an increase of more than 20% of dwelling units or peak number of customers and employees (24 CFR 55.2(b)(8)

Clean Air Act Compliance

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
EPA requires federal actions to conform to State or Federal Action Plans for air quality.	Clean Air Act (42 U.S.C. 7401 et seq.) as amended	40 CFR Parts 6, 51 and 93

1. Does your project require an environmental assessment level review for new construction or major rehabilitation of existing structures?

☐ No: STOP here. The Clean Air Act conformity requirements do not apply. Record your determination.

☒ Yes: PROCEED to #**2**

2. Is the project located in a designated non-attainment area for criteria air pollutants?

Maintain, in your ERR, either a map or list of non-attainment areas in your region.
You can find information on non-attainment areas by state at this website:
http://epa.gov/oar/oaqps/greenbk/ancl.html

☒ No: STOP here. The Clean Air Act conformity requirements do not apply. Record your determination.

☐ Yes: PROCEED to #**3**

3. Does your project exceed de minimis impact criteria?

Determine if your project will result in emissions (both direct and indirect) that exceed the de mimimis thresholds established for each criteria pollutant at 40 CFR Part 93.153 (see attached). In general, HUD projects will not exceed this threshold. However, you should work with your local air quality authority to determine whether your project may have an impact on air quality. For PM-10 and PM 2.5 non-attainment areas, please make special note of any local dust control regulations that might apply during construction. Please see attached document for air authority contacts.

☐ No: STOP here. The project does not impact air quality. Record your determination on the Statutory Worksheet and attach documentation.

☐ Yes: PROCEED to #**4**

4. Does your project conform with the State or Federal Action Plan for air quality?

Work with your local or state air quality authority to determine if your project conforms with your State Action plan. If you cannot reach this determination, please contact your HUD environmental officers for further guidance.

DISCLAIMER: This document is intended as a tool to help Region X grantees and HUD staff complete HUD environmental requirements. This document is subject to change. This is not a policy statement, and the Clean Air Act Legislation and Regulations take precedence over any information found in this document.

Washington Whole or Part County Nonattainment Status by Year Since 1992 for all Criteria Pollutants

Data is current as of November 30, 2020

Listed by State, County, NAAQS (W=Whole County,P=Partial County designated nonattainment as of report date)
The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

The 1997 Primary Annual PM-2.5 NAAQS (level of 15 $\mu g/m^3$) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:
WASHINGTON GO

Important Notes

Download National Dataset: dbf | xls | Data dictionary (PDF)

WASHINGTON																												
County	**NAAQS**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
Clark Co	1-Hour Ozone (1979)-NAAQS revoked	P	P	P	P	P																							
Clark Co	Carbon Monoxide (1971)	P	P	P	P																								
King Co	1-Hour Ozone (1979)-NAAQS revoked	P	P	P	P																								
King Co	Carbon Monoxide (1971)	P	P	P	P																								
King Co	PM-10 (1987)	P	P	P	P	P	P	P	P	P																			
Pierce Co	1-Hour Ozone (1979)-NAAQS revoked	W	W	W	W																								
Pierce Co	Carbon Monoxide (1971)	P	P	P	P																								
Pierce Co	PM-10 (1987)	P	P	P	P	P	P	P	P	P																			

Pierce Co	PM-2.5 (2006)																	P	P	P	P	P	P				
Snohomish Co	1-Hour Ozone (1979)-NAAQS revoked	P	P	P	P																						
Snohomish Co	Carbon Monoxide (1971)	P	P	P	P																						
Spokane Co	Carbon Monoxide (1971)	P	P	P	P	P	P	P	P	P	P	P	P	P													
Spokane Co	PM-10 (1987)	P	P	P	P	P	P	P	P	P	P	P	P	P													
Thurston Co	PM-10 (1987)	P	P	P	P	P	P	P	P																		
Walla Walla Co	PM-10 (1987)	P	P	P	P	P	P	P	P	P	P	P	P	P													
Yakima Co	Carbon Monoxide (1971)	P	P	P	P	P	P	P	P	P	P																
Yakima Co	PM-10 (1987)	P	P	P	P	P	P	P	P	P	P	P	P	P													

Important Notes

Discover.
Connect.
Ask.

Follow.

2020-11-30

Coastal Zone Management—Washington State

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Ensure that projects are consistent with the Washington Coastal Zone Management Program	Coastal Zone Management Act 16 U.S.C. 1451-1464	15 CFR Part 930

1. Is the project located in Callam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum or Whatcom Counties?

☐ No: Stop here. The CZM review is complete. Record your determination on the EA, Statutory Worksheet or HUD Form 4128.
☒ Yes: PROCEED to #**2**

2. Is the project located on tribal trust lands?

☐ Yes: Tribal Trust land is excluded from the state coastal zone. Proceed to #3.
☒ No: PROCEED to #**4**

3. Will the project impact the coastal zone beyond the excluded tribal trust land, for example through water runoff from increased impervious surfaces, or increased sediment loads in waterbodies?

☐ Yes: PROCEED to #**4**
☒ No: The Coastal Zone Management review is complete. Document that your project will have no impact on coastal zones outside of the excluded tribal trust land. Record your determination on the Statutory Worksheet , Environmental Assessment form or HUD Form 4128.

4. Does the project include new construction or major rehabilitation of existing structures? Major rehabilitation means work that exceeds the categorical exclusion threshold at 24 CFR Part 58.35(a) and therefore requires a full Environmental Assessment.

☐ No: STOP here. The Costal Zone Management review is complete.
☐ Yes: PROCEED to #**4**

4. Does the project comply with the enforceable policies of the Coastal Zone Management Program?

- Complete the attached "Certification of Consistency with Washington's Coastal Zone Management Program," and send it to the Department of Ecology (DOE) at the following address: Federal Consistency Coordinator, Shorelines & Environmental Assistance Program, Department of Ecology, P.O. Box 47690, Olympia, WA 98504-7690 telephone number: (360) 407-6068 or email it toecyrefedpermits@ecy.wa.gov Be sure to identify the Federal Program, i.e. CDBG, Section 202, SHOP, etc. The Applicant is HUD or the Responsible Entity. The first certification on the form should be signed by the lender or non-profit organization that is developing the project. HUD (under Part 50) or the responsible entity (under Part 58) signs the determination that the action will not affect coastal resources (once it has been determined that the project will comply with all enforceable policies of the CZM Program). Ecology has 6 months to concur with a determination, however, they often do so within two weeks if all of the information is submitted.

☐ Yes: STOP here. The Coastal Zone Management Review is complete. ☐ You should have a mechanism in place (i.e. condition to the contract or FIRM Commitment) to assure the recipient has completed all actions prior to releasing funds. Attach a copy of the Certification and Consistency determination. Record your determination on the EA, Statutory Worksheet or 4128.

☐ **No: If the project will not comply will all enforceable policies as outlined on the Certification of Consistency, work with Department of Ecology to mitigate issues. Do not initiate the Project until CZM has been mitigated.**

DISCLAIMER: This document is intended as a tool to help HUD Region X grantees and HUD staff complete NEPA requirements. This document is subject to change. This is not a policy statement, and the Coastal Zone Management Legislation and Regulations take precedence over any information found in this document.

Toxic Chemicals and Radioactive Materials

24 CFR Part 58

General requirements	Legislation	Regulation
All property proposed for use in HUD programs must be free of hazardous materials, contamination, toxic chemicals and gasses and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended by Superfund Amendments and Reauthorization Act	24 CFR 58.5(i)

You are required to consider all hazards that could affect the health and safety of occupants and use current techniques by qualified professionals to undertake investigations determined necessary. This checklist tool is intended as guidance only and does not cover all possible hazards. This document is subject to change. Legislation and Regulations take precedence over any information found in this document.

1. Is the project for acquisition, new construction or rehabilitation of a one-to-four family residential property?

☐ Yes: PROCEED to #**3 to determine the likelihood of hazardous conditions existing nearby or on the property which could affect the health and safety of proposed occupants.**
☒ No: PROCEED to #**2**

2. Is the project for multifamily housing with 5 or more dwelling units (including leasing), or non-residential property?

☐ No: PROCEED to #**3**
☒ Yes**:** The environmental review **must** include the evaluation of previous uses of the site or other evidence of contamination on or near the site, to assure that the occupants of proposed sites are not adversely affected by hazardous materials, contamination, toxic chemicals and gases, and radioactive substances. **For acquisition and new construction projects, HUD strongly advises that the review include an ASTM Phase 1 assessment or equivalent analysis, including an update if the assessment is over 180 days old, in order to meet real estate transaction standards of due diligence.** If you do obtain a Phase I review, it is suggested that you include consideration of the regulations at 24 CFR Part 58.5(i) as an additional purpose in the subsection on "purpose" in the Phase I. Your review should cover the information in the questions below (if you have a Phase I it will already cover the information below). **PROCEED to #3.**

3. Is the answer Yes to any of the following questions?

- **Is the property or surrounding neighborhood listed on an EPA Superfund National Priorities, the CERCLA List, or equivalent State list?**
  An internet site that may be helpful is www.epa.gov/superfund/sites/npl.

  ☒ No ☐ Yes

- **Is the property located near a toxic or solid-waste landfill site?**
  An internet site that may be helpful is http://www.epa.gov/emefdata/em4ef.home. Maps, site inspections and documentation from the local planning department may also be useful in making your determination.

  ☒ No ☐ Yes

- **Are there any underground storage tanks (not including residential fuel tanks) on or near the property?**
  For projects in Washington State, visit: www.ecy.wa.gov/programs/tcp/ust-lust/tanks.html.
  For projects in Oregon, visit: http://www.deq.state.or.us/lq/tanks/index.htm
  For projects in Idaho, visithttps://www.deq.idaho.gov/waste-mgmt-remediation/storage-tanks/leaking-underground-storage-tanks.aspx

For projects in Alaska, visit: http://www.dec.state.ak.us/spar/ipp/tanks.htm

Consider past uses of the property when making your determination.
☒ No ☐ Yes

- **Is the property known or suspected to be contaminated by toxic chemicals or radioactive materials?**

☒ No ☐ Yes

HUD's "Choosing an Environmentally 'Safe' Site" provides guidance in considering potential environmental issues: https://www.onecpd.info/resource/83/choosing-an-environmentally-safe-site/ In considering the site the guidance suggests that you:

- Make a visual inspection of the site for signs of distressed vegetation, vents or fill pipes, storage/oil tanks or questionable containers, pits, ponds or lagoons, stained soil or pavement, pungent, foul or noxious odors, dumped material or soil, mounds of dirt, rubble, fill etc.
- Research the past uses of the site and obtain a disclosure of past uses from the owner. Certain past and present uses such as the following signal concerns of possible contamination and require a more detailed review: gasoline stations, vehicle repair shops, car dealerships, garages, depots, warehouses, commercial printing facilities, industrial or commercial warehouses, dry cleaners, photo developing laboratories, hospitals, junkyard or landfills, waste treatment, storage disposal, processing or recycling facilities, agricultural/farming operations (including hog and poultry operations) and tanneries.
- Identify adjoining properties in the surrounding area for evidence of any facilities as described above.
- Research Federal, State and local records about possible toxins and hazards at the site.

☐ Yes to any of the above questions: PROCEED to #4
☒ No to all questions: The toxic chemicals and radioactive materials review is complete, unless there are other hazards that could affect the health and safety of occupants. Record your determination on the Statutory Worksheet and maintain appropriate documentation in the ERR.

4. Could nearby toxic, hazardous or radioactive substances affect the health and safety of project occupants or conflict with the intended utilization of the property?

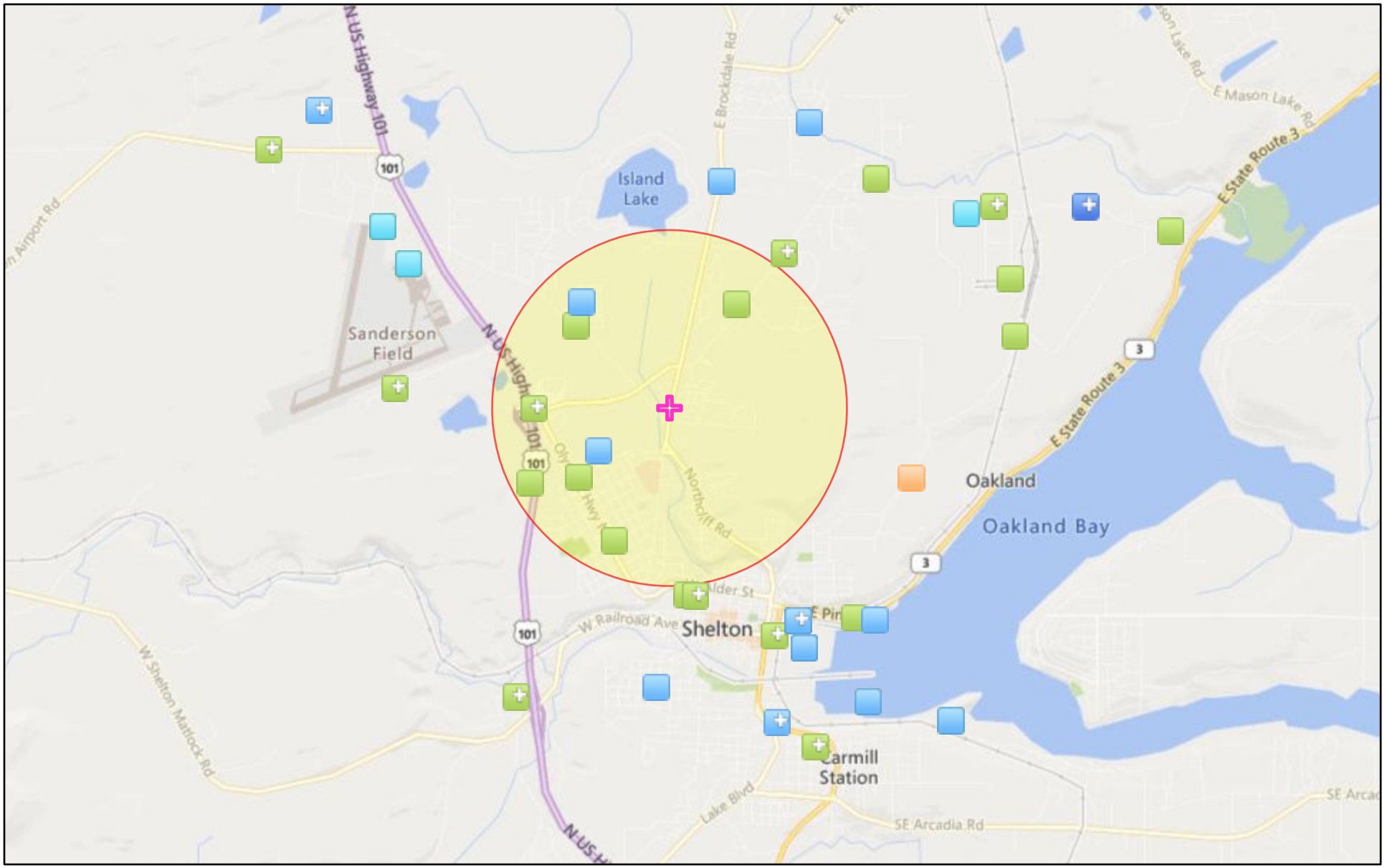
Gather all pertinent information concerning any on-site and nearby toxic hazards. Consider, at a minimum, each of the areas identified in Question 3. Consider if your ASTM Phase 1 or equivalent analysis identifies any Recognized Environmental Conditions (RECs) or conditions that could impact the health or safety of the occupants. If appropriate and/or required, obtain independent professional reviews of the site (e.g., an ASTM Phase 2 or equivalent analysis). Contact appropriate Federal, State and Local resources for assistance in assessing exposure to health hazards.

☐ Yes: PROCEED to #5.
☐ No: The toxic chemicals and radioactive materials review is complete, unless there are other hazards that could affect the health and safety of occupants. Record your determination that there are no hazards that could affect the safety of occupants or impact the intended use of the project and maintain appropriate documentation in the ERR.

5. Can the adverse environmental condition be mitigated?

☐ Yes: Mitigate according to the requirements of the appropriate Federal, State or local oversight agency. Record your determination that there are no hazards that could affect the safety of occupants or impact the intended use of the project and maintain appropriate documentation in the ERR. HUD assistance should be conditioned on completion of appropriate mitigation. Deny HUD assistance if, after mitigation, the property is still determined to be unsafe or unhealthy. For more details please refer to HUD's "Choosing an Environmentally 'Safe' Site."
☐ No: Do not provide HUD assistance for the project at this site.

NEPAssist Shelton



December 8, 2020

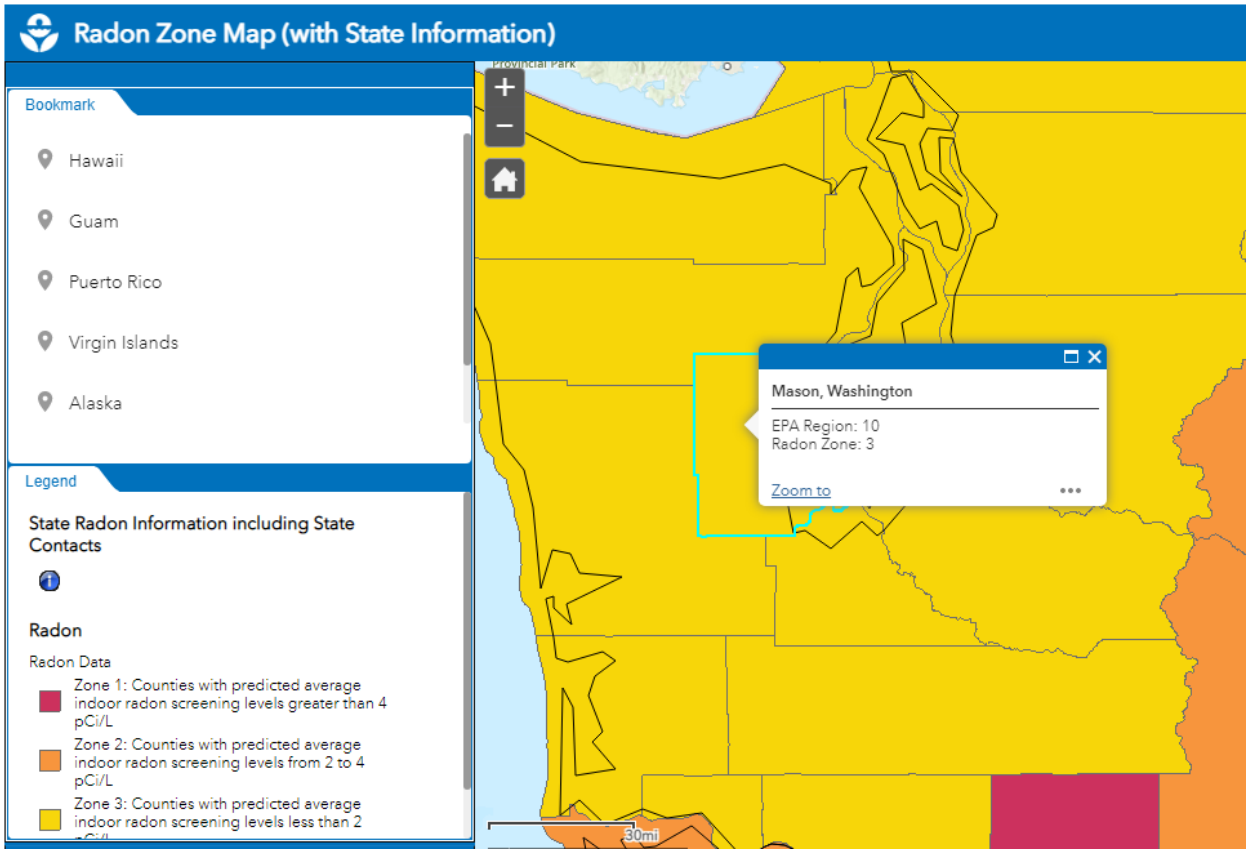
- Water Dischargers (NPDES)
- Water Dischargers (NPDES)
- Toxic Releases (TRI)
- Brownfields (ACRES)
- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Air Pollution (ICIS-AIR)
- Air Pollution (ICIS-AIR)
- Project Buffer

1:72,224

0 0.42 0.85 1.7 mi

0 0.5 1 2 km

Site	Type	Violation?	Notes
City of Shelton Sewer Basin 3	NPDES	Yes	One reported minor CWA violation reported (Effluent Limit Exceedence, 3rd Qtr 2020). Violation site is located beyond 1 mile radius and downgradient of project site. No water event at this site is likely to affect project site.
Alder St Olympic Hwy N	NPDES	Yes	One reported minor CWA violation reported (Construction Stormwater, 3rd Qtr 2020). Violation site is located beyond 1 mile radius and downgradient of project site. No water event at this site is likely to affect project site.
Manke Tug & Barge	RCRA	No	
Shelton Elementary	NPDES	Yes	One reported minor CWA violation reported (Construction Stormwater, 3rd Qtr 2020). Site is approximately .4 miles from project site. No water event at this site is likely to affect project site.
Mason County PUD 3	RCRA	No	
WA DOT Skokomish River BR 10	RCRA	No	
Arco 82609	RCRA	No	
Wal Mart Store 2121	RCRA	No	
Mason County Transportation C	RCRA	No	
Shelton Springs	NPDES	No	
Bpa Right of Way Paint Dump	RCRA	No	
Barnes Machine Inc	RCRA	No	


Radon Zone Map (with State Information)
Bookmark
Hawaii
Guam
Puerto Rico
Virgin Islands
Alaska
Legend
State Radon Information including State Contacts
Radon
Radon Data
Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L
Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L
Zone 3: Counties with predicted average indoor radon screening levels less than 2
Mason, Washington
EPA Region: 10
Radon Zone: 3
Zoom to
30mi

Endangered Species Act No Effect Guidance for Washington State

(Prepared in collaboration with the U.S. Fish and Wildlife Service and NOAA Fisheries. Applies in Washington State only.)

24 CFR Part 58

General requirements	ESA Legislation	HUD Regulations
Section 7 of the Endangered Species Act mandates that actions that are authorized, funded, or carried out by Federal agencies do not jeopardize the continued existence of plants and animals that are listed or result in the adverse modification or destruction of designated critical habitat.	The Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.; particularly section 7)	24 CFR 58.5(e) 24 CFR 50.4(e)

Purpose: The purpose of this checklist is to assist HUD and responsible entities meet their Endangered Species Act obligations. A determination of "**no effect**" to federally listed species and critical habitat fulfills HUD's and the responsible entity's obligation to ensure actions it authorizes, funds, or carries out do not jeopardize the continued existence of listed species or adversely modify designated critical habitat. "**No effect**" determinations do not require coordination with or approval from the U.S. Fish and Wildlife Service and/or NOAA Fisheries.

Definition: "**No effect**" – the appropriate determination when the proposed action, including its interrelated and interdependent actions, will not affect (i.e., influence or bring about any change) listed species or designated critical habitat either directly or indirectly.

The following questions will help you determine if the proposed project will have an effect to federally listed species or designated critical habitat. The list of activities is not all-inclusive, but provides examples of typical types of projects that would meet a "no effect" determination.

1. Does the project consist solely of the following activities: purchasing existing buildings; completing interior renovations to existing structures; replacement or repairs to existing roofs (not including galvanized material unless it has been sealed or otherwise confined so that it will not leach into stormwater); replacing exterior paint or siding on existing buildings; adding sprinkler systems or repairing landscape, not including removing trees or shrubs?

☐ Yes: STOP here. The project will have No Effect on listed or proposed species, and designated or proposed critical habitat. Consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries is not required. Record your determination of no effect and maintain this documentation in your ERR.

☒ No: PROCEED to #**2**

2. Does the project consist solely of the any of the following activities and not result in an increase of impervious surface, removal of trees, or removal of streamside vegetation: rehabilitation of an existing structure; reconstruction or repair to existing curbs, sidewalks or other concrete structures; repairs to existing parking lots (for example repairing pot holes or repainting lines – not expansions); purchasing or installing appliances?

☐ Yes: STOP here. The project will have No Effect on listed or proposed species, and designated or proposed critical habitat. Consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries is not required. Record your determination of no effect and maintain this documentation in your ERR.

☒ No: PROCEED to #**3**

3. If new construction, does construction occur on a previously developed parcel and meet all of the following criteria: does not add new impervious surfaces; does not remove trees or streamside/riparian vegetation; complies with all state and local building codes and stormwater regulations; infiltrates all stormwater or does not discharge stormwater to a salmonid-bearing stream or proposed/designated critical habitat.

☐ Yes: STOP here. The project will have No Effect on listed or proposed species, and designated or proposed critical habitat. Consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries is not required. Record your determination of no effect and maintain this documentation, including information about the stormwater discharge, in your ERR.
☒ No: PROCEED to #**4**

4. If new construction, does construction add new impervious surfaces to a previously developed parcel and meet all of the following criteria: does not remove trees or streamside/riparian vegetation; complies with all state and local building codes and stormwater regulations; discharges treated stormwater to non- salmonid-bearing stream within the same subbasin (discharge point must be a minimum of ¼ mile from salmonid bearing stream or proposed/designated critical habitat) or infiltrates all treated stormwater within the same subbasin.

☐ Yes: STOP here. The project will have No Effect on listed or proposed species, and designated or proposed critical habitat. Consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries is not required. Record your determination and maintain this documentation, including information about the stormwater discharge, in your ERR.
☒ No: PROCEED to #**5**

5. Would project effects, including those that extend beyond the project site (e.g., noise, air pollution, water quality, stormwater discharge, visual disturbance), overlap with identified federally listed or proposed species occurrences or designated or proposed critical habitat or potential habitat (e.g., roosting, feeding, nesting, spawning, rearing, overwintering sites, or migratory corridors) for listed species?

For USFWS, please visit the following website to order a site-specific species list from the State Department of Wildlife and Fish: www.wdfw.wa.gov/hab/release. The process takes one to eight weeks and costs $40. For NOAA Fisheries, please visit this website to determine the location of listed species: www.streamnet.org (click "Interactive Mapper")

No: STOP here. The project will have No Effect on listed or proposed species, and designated or proposed critical habitat. Consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries is not required. Record your determination of no effect and maintain this documentation in your ERR.

☐ **Yes:** The project may affect listed or proposed species, or designated or proposed critical habitat. Consultation with the USFWS and/or NOAA Fisheries may be required.

Working Toward Recovery: The Endangered Species Act requires that all federal agencies utilize their authorities to help conserve listed species. Therefore, as responsible entities, you are encouraged to minimize the effects of your actions on listed species, designated critical habitat and habitat identified in endangered species recovery plans. For your activities, you are especially encouraged to minimize your action's contribution to water quality degradation from point and non-point discharges, and water quantity alteration due to increased impervious surfaces. Information on low impact development can be found at www.epa.gov/nps/lid/lidlit.html.

NOTE: all storm water contained to site. IPAC species determination shows no threatened species or critical habitat on/near site.

DISCLAIMER: This document is intended as a tool to help grantees and HUD staff complete NEPA requirements. This document is subject to change. This is not a policy statement, and the Endangered Species Act and associated regulations take precedence over any information found in this document.

Questions concerning environmental requirements relative to HUD programs can be addressed to Deborah Peavler-Stewart (206) 220-5414 or Sara Jensen (206) 220-5226.

IPaC **U.S. Fish & Wildlife Service**

Regulatory review / Endangered species / Species determinations

Species determinations

For listed species[1] not covered by determination keys, an impact analysis should be performed to reach a conclusion about how this project will impact the species. These conclusions will result in *determinations* for each species, which will be used in consultation with the U.S. Fish and Wildlife Service.

Birds

Marbled Murrelet Brachyramphus marmoratus	None
Streaked Horned Lark Eremophila alpestris strigata	None
Yellow-billed Cuckoo Coccyzus americanus	None

Fishes

Bull Trout Salvelinus confluentus	None

Critical habitats

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

Explosive and Flammable Operations

24CFR Part 58

General requirements	Legislation	Regulation
Establish safety standards that can be used as a basis for calculating acceptable separation distances for assisted projects.	Sec.2 Housing and Urban Development Act of 1969 (42 U.S.C. 1441 (a)	24 CFR Part 51 Subpart C

1. Does the project include development, construction, rehabilitation or modernization or conversion? (For modernization and rehabilitation projects, does the work increase residential densities, convert a building for habitation, or make a vacant building habitable?)

☐ No: STOP here. The project is not subject to 24 CFR Part 51 C. Record your determination in your Environmental Review Record (ERR).

☒ Yes: PROCEED to #**2**

2. Are there aboveground storage tanks within 1 mile of the project site more than 100 gallons in size? Are there plans to install such aboveground storage tanks within 1 mile of the project site? (HUD's stated position is that 24 CFR Part 51 C does not apply to storage tanks ancillary to the operation of the assisted 1-4 family residence, for example the home heating or power source. It does apply to all other tanks, including tanks for neighboring 1-4 family residences.)

Maintain documentation supporting your determination in your ERR. Documentation could include a finding by a qualified data source (i.e. Fire Marshall etc…), copies of pictures, maps, and/or internet data.

TIP: You do not have to consider all tanks at all sizes within 1 mile of your project. Screen further by determining the Acceptable Separation Distance for specific tank sizes and using that information to narrow your search. For instance, the maximum ASD for a 100 gallon tank is 115 feet. You do not need to map 100 gallon tanks farther than 115 feet from your project site. Find the list of ASDs by tank size in Appendix C here: https://www.hudexchange.info/resources/documents/Acceptable-Separation-Distance-Guidebook-Appendix-C.pdf

☒ No: STOP here. The project is not subject to 24 CFR Part 51 C. Record your determination that there are no storage tanks within one mile of the project site in your ERR.

☐ Yes: PROCEED to #**3**

3. Is the Separation Distance from the project acceptable based on standards in 24 CFR 51 C?

Use the online tool to calculate ASD: https://www.hudexchange.info/environmental-review/asd-calculator/ or use the HUD guidebook, "Acceptable Separation Distance Guidebook which is available at: https://www.hudexchange.info/resource/2762/acceptable-separation-distance-guidebook/

☐ Yes: STOP here. Include maps and your separation distance calculations in your ERR.

☐ No: PROCEED to #**4**

4. With mitigation, can the Separation Distance become acceptable?

☐ No: PROJECT IS NOT ACCEPTABLE-DO NOT FUND

☐ Yes: STOP here. Maintain documentation supporting your determination in your ERR. Documentation could include a finding by a qualified data source (i.e., Fire Marshall etc.), copies of pictures, maps, technical calculations and information describing the mitigation measures taken.

DISCLAIMER: This document is intended as a tool to help Region X HUD grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement. Legislation and Regulations take precedence over any information found in this document.

2471 N 13th,Shelton Explosives

December 8, 2020

Project Buffer

Search Result (point)

1:36,112

0 0.2 0.4 0.8 mi

0 0.33 0.65 1.3 km

Farmland Protection

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
The Farmland Protection Policy Act discourages Federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	7 CFR Part 658

1. Does your project include new construction, acquisition of undeveloped land or change in use of land or property.

☒ Yes: PROCEED to #**2**
☐ No: STOP here. The Farmland Protection Policy Act does not apply. Record your determination

☐ Maintain, in your ERR, a determination that the project does not include new construction, acquisition of undeveloped land or change in use of a property

2. Does your project meet one of the following exemptions?

- Construction limited to on-farm structures needed for farm operations.
- Construction limited to new minor secondary (accessory) structures such as a garage or storage shed
- Project on land used for water storage or already in or committed urban development (this includes land with a density of 30 structures per 40 acre area. It also includes lands identified as "urbanized area" (UA) on the Census Bureau Map, or as urban area mapped with a "tint overprint" on the USGS topographical maps, or as "urban built-up" on the USDA Important Farmland Maps. Please note that land "zoned" for development, i.e. non-agricultural use, does not exempt a project from compliance with the FPPA).

☒ Yes: STOP here. The Farmland Protection Policy Act does not apply. Record your determination

☐ Maintain, in your ERR, documentation to evidence the project meets one of the exemptions. If the project is already in urban development provide a map as described above with your site marked or documentation from another credible source.

☐ No: PROCEED to #**3**

3. **Does "important farmland" regulated under the Farmland Protection Policy Act occur on the project site? This includes prime farmland, unique farmland and/or land of statewide or local importance**

You may use the links below to determine if important farmland occurs on the project site:

- Utilize USDA Natural Resources Conservation Service's (NRCS) Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

- Check with your city or county's planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)
- Contact NRCS at the local USDA service center http://offices.sc.egov.usda.gov/locator/app?agency=nrcs for assistance

☐ No: STOP here. The project does not convert farmland to nonagricultural purposes. Record your determination on the Statutory Worksheet and attach documentation used to make your determination

☐ Yes: PROCEED to #4

4. Consider alternatives to completing the project on important farmland and means of avoiding impacts to important farmland.

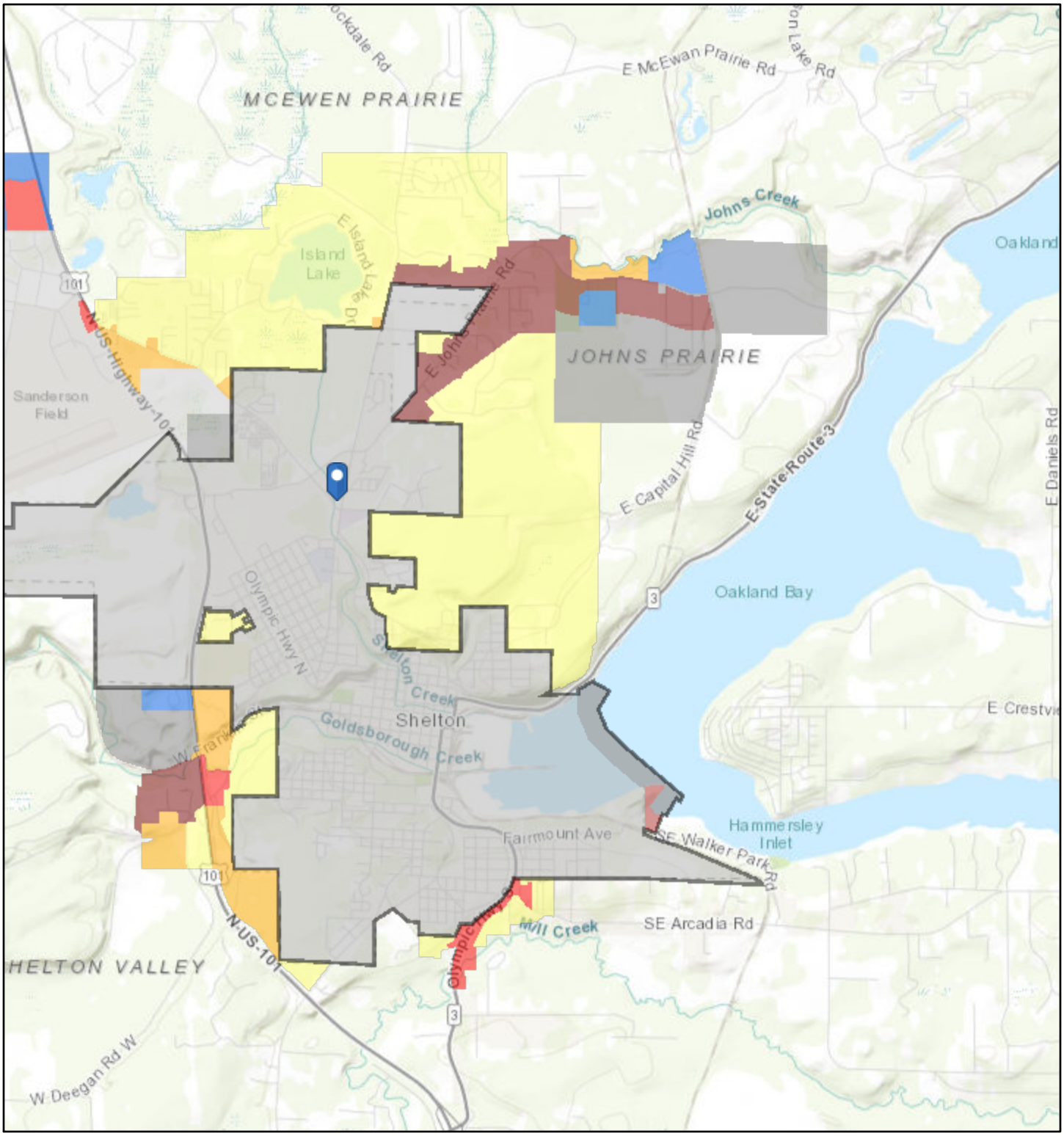
Complete form AD-1006, "Farmland Conversion Impact Rating" and contact the state soil scientist before sending it to the local NRCS District Conservationist. Work with NRCS to minimize the impact of the project on the protected farmland.

Return a copy of Form 1006 to the USDA-NRCS State Soil Scientist or his/her designee informing them of your determination once you have finished the analysis.

Record your determination on the Statutory Worksheet and attach documentation used to make your determination. Include any mitigation required in the review.

DISCLAIMER: This document is intended as a tool to help Region X HUD grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement, and the Farmland Protection Legislation and Regulations take precedence over any information found in this document.

Mason County WA GIS Web Map



11/20/2020, 12:00:53 PM

1:49,137

0 0.42 0.85 1.7 mi

0 0.5 1 2 km

County Boundary

Shelton Zoning

- Airport Industrial
- Commercial Industrial
- General Commercial
- Industrial
- Mixed Use
- Neighborhood Residential
- Public Institutional

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Mason County WA GIS Web Map Application
Richard Diaz | Esri, HERE, Garmin, FAO, NOAA, USGS, EPA |

Urbanized Areas and Urban Clusters: 2010

UC	80794	Seymour, IN
UC	80848	Seymour (Outagamie County), WI
UC	80875	Shady Cove, OR
UC	80902	Shady Side--Deale, MD
UC	80929	Shafter, CA
UC	80956	Shallowater, TX
UC	80985	Shamokin--Mount Carmel, PA
UC	81002	Shannondale, WV
UC	81064	Shawano, WI
UC	81091	Shawnee, OK
UA	81118	Sheboygan, WI
UC	81172	Shelby, MT
UC	81199	Shelby, NC
UC	81226	Shelby, OH
UC	81253	Shelbyville, IL
UC	81280	Shelbyville, IN
UC	81307	Shelbyville, KY
UC	81334	Shelbyville, TN
UC	81361	Sheldon, IA
UC	81388	Shelley, ID
UC	81415	Shelton, WA
UC	81442	Shenandoah, IA
UC	81472	Shenandoah--Mahanoy City--Frackville, PA
UC	81496	Shepherdstown, WV--MD
UC	81523	Sheridan, AR
UC	81550	Sheridan, IN
UC	81577	Sheridan, OR
UC	81604	Sheridan, WY
UA	81631	Sherman, TX
UC	81658	Shippensburg, PA
UC	81685	Shiprock, NM
UC	81701	Shorewood Forest, IN
UC	81712	Show Low, AZ
UA	81739	Shreveport, LA
UC	81766	Sibley, IA
UC	81793	Sidney, MT
UC	81820	Sidney, NE
UC	81847	Sidney, NY
UC	81874	Sidney, OH
UC	81889	Sierra View--Indian Mountain Lake, PA

Floodplain Management

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Avoid the adverse impacts associated with the occupancy and modification of floodplains. Avoid floodplain development whenever there are practicable alternatives.	Executive Order 11988, May 24 1977	24 CFR Part 55

1. Is the Project located in a floodway or a 100 or 500-year flood plain?

☐ For projects in areas mapped by FEMA, maintain the FEMA map panel that includes your project site. Make sure to include the map panel number and date. If FEMA information is unavailable or insufficiently detailed, other Federal, state, tribal or local data may be used as 'best available information.' However, a base flood elevation from an interim or preliminary or non-FEMA source cannot be used if it is lower than the current FIRM and FIS. Include documentation, including a discussion of why this is the best available information for the site.

☒ No: STOP here. The Floodplain Management regulations do not apply. Record your determination that the project is not in a floodplain or floodway.

☐ Yes—Floodway. **STOP**. **The National Flood Insurance Program prohibits federal financial assistance for use in a floodway.** The only exception is for functionally dependent uses, such as a marina, a port facility, a waterfront park, a bridge or a dam. If your project is a functionally dependent use in a floodway, proceed to #3

☐ Yes—500-year flood plain (Zone B or X on FEMA maps or best information). **PROCEED to #2**

☐ Yes—100 Year flood plain (Zone A or V on FEMA maps or best information). **PROCEED to #3**

☐ Yes—Flood prone area. **PROCEED to #3**

2. For projects in the 500-year flood plain: Does your project involve a critical action, defined as an activity for which even a slight chance of flooding would be too great because it might result in loss of life, injury or property damage? Specific examples include:

- Structures or facilities that produce, use or store highly volatile, flammable, explosive, toxic or water-reactive materials.
- Structures or facilities that provide essential and irreplaceable records or utility or emergency services that may become lost or inoperative during flood and storm events (e.g., data storage centers, generating plants, principal utility lines, emergency operations centers including fire and police stations, and roadways providing sole egress from flood-prone areas).
- Structures or facilities that are likely to contain occupants who may not be sufficiently mobile to avoid loss of life or injury during flood or storm events, e.g. persons who reside in hospitals, nursing homes, convalescent homes, intermediate care facilities, board and care facilities, and retirement service centers. Housing for independent living for the elderly is not considered a critical action.

☐ No: STOP here. The project can proceed without further analysis. Record your determination and attach flood plain map and documentation that project does not involve a critical action.

☐ Yes: PROCEED to #3

3. Does your project meet one of the categories of proposed action for which Part 55 does not apply? (Below are several common exemptions—please see 24 CFR 55.12(c) for additional categories of proposed action)

- The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands but only other certain further conditions (see 24 CFR 55(c)(3).

- A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain.
- Approval of a project site, an incidental portion of which is situated in an adjacent floodplain, but only with certain further conditions (see 24 CFR 55.12(c)(6)).
- A project on any site in a floodplain for which FEMA has issued a final Letter of Map Amendment or Letter of Map Revision that removed the property from a FEMA-designated floodplain location.
- A project on any site in a floodplain for which FEMA has issued a conditional LOMA or LOMR if the approval is subject to the requirements and conditions of the conditional LOMA or LOMR.
- Special Projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

☐ Yes: Stop here. Record your determination that the project is exempt from floodplain management regulations per 24 CFR 55.12(c). Maintain copies of all of the documents you have used to make your determination. Please note that you may still have to maintain flood insurance on the project per the Flood Disaster Protection Act.
☐ No: Proceed to #4.

4. **Does your project meet one of the categories of proposed action for which the 8-step decision making process does not apply? (**Below are several common exemptions—please see 24 CFR 55.12(b) for additional categories of proposed action)
   - Financial assistance for the purchasing, mortgaging or refinancing of existing one-to-four family properties under certain conditions (24 CFR 55(b)(1))
   - Financial assistance for minor repairs or improvements on one-to-four-family properties that do not meet the thresholds for 'substantial improvement'[1]
   - Disposition of individual HUD-acquired one-to-four-family properties.
   - HUD guarantees under the Loan Guarantee Recovery Fund Program under certain conditions (see 24 CFR 55.12(b)(4).
   - Leasing an existing structure in the floodplain but only under certain conditions (see 24 CFR 55.12(b)(5))

☐ Yes: Stop here. Record your determination that the project is exempt from the 8-step process as per 24 CFR 55.12(b). Maintain copies of all of the documents you have used to make your determination. Please note that you may still have to maintain flood insurance on the project per the Flood Disaster Protection Act. Please also note that notification of floodplain hazard requirements at 24 CFR 55.21 may apply.
☐ No: Proceed to #5.

5. **Does your project meet one of the categories of proposed action for which a limited 8-step process applies?** (please see 24 CFR 55.12(a) for more details)
   - Disposition of acquired multifamily housing projects or acquired one-to-four family properties where communities are in good standing in the NFIP program.
   - HUD's actions under the National Housing Act for purchase or refinance of existing multifamily housing projects, hospitals, nursing homes, assisted living facilities, board and care facilities, and intermediate care facilities, in communities that are in good standing under the NFIP.
   - Actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing multifamily housing projects, nursing homes, assisted living facilities, board and care facilities, intermediate car facilities and one-to-four family properties in communities in the Regular Program of the NFIP and in good standing, units are not increased more than 20 percent, the action does not involve a conversion from nonresidential to residential land use, the action does not meet the thresholds for 'substantial improvement'[1] and the footprint of the structure and paved areas is not significantly increased.
   - Actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing nonresidential buildings and structures in communities in the Regular Program of the NFIP and in good standing, the action does not meet the thresholds for 'substantial improvement'[1] and the footprint of the structure is not significantly increased.

☐ Yes: Complete the 5-step decision-making process for floodplains. You do not have to publish the notices in steps 2 or 7 or do an analysis of alternatives in Step 3. Analyze potential direct and indirect impacts (step 4); design or modify to minimize potential impacts (step 5); reevaluate the proposed action to determine if action is still practicable (step 6).

- If still practicable, document your analysis in the file and move forward.
- If not still practicable, either reject or modify project.

☐ No: Proceed to #6.

6. Are there practicable alternatives to locating your project in the floodplain?

HUD strongly discourages use of funds for projects that do not meet an exemption in Part 55.12. Reject the Project Site or Request a Letter of Map Amendment or Revision (LOMA/R) from FEMA. If you decide to consider the project you must determine if there are alternatives by completing the 8-step decision-making process described in 24 CFR Section 55.20. Please note that requesting a LOMA/R or completing the 8 step process take time and resources. The 8-step decision-making process requires two public notice and comment periods.

You must also maintain flood insurance on the project per the Flood Disaster Protection Act.

☐ Yes: Reject or modify project.

☐ No: Document your analysis, including floodplain notices, in your Environmental Review Record. You must notify any private party participating in a financial transaction for the property of the hazards of the floodplain location before the execution of documents completing the transaction. (24 CFR Section 55.21)

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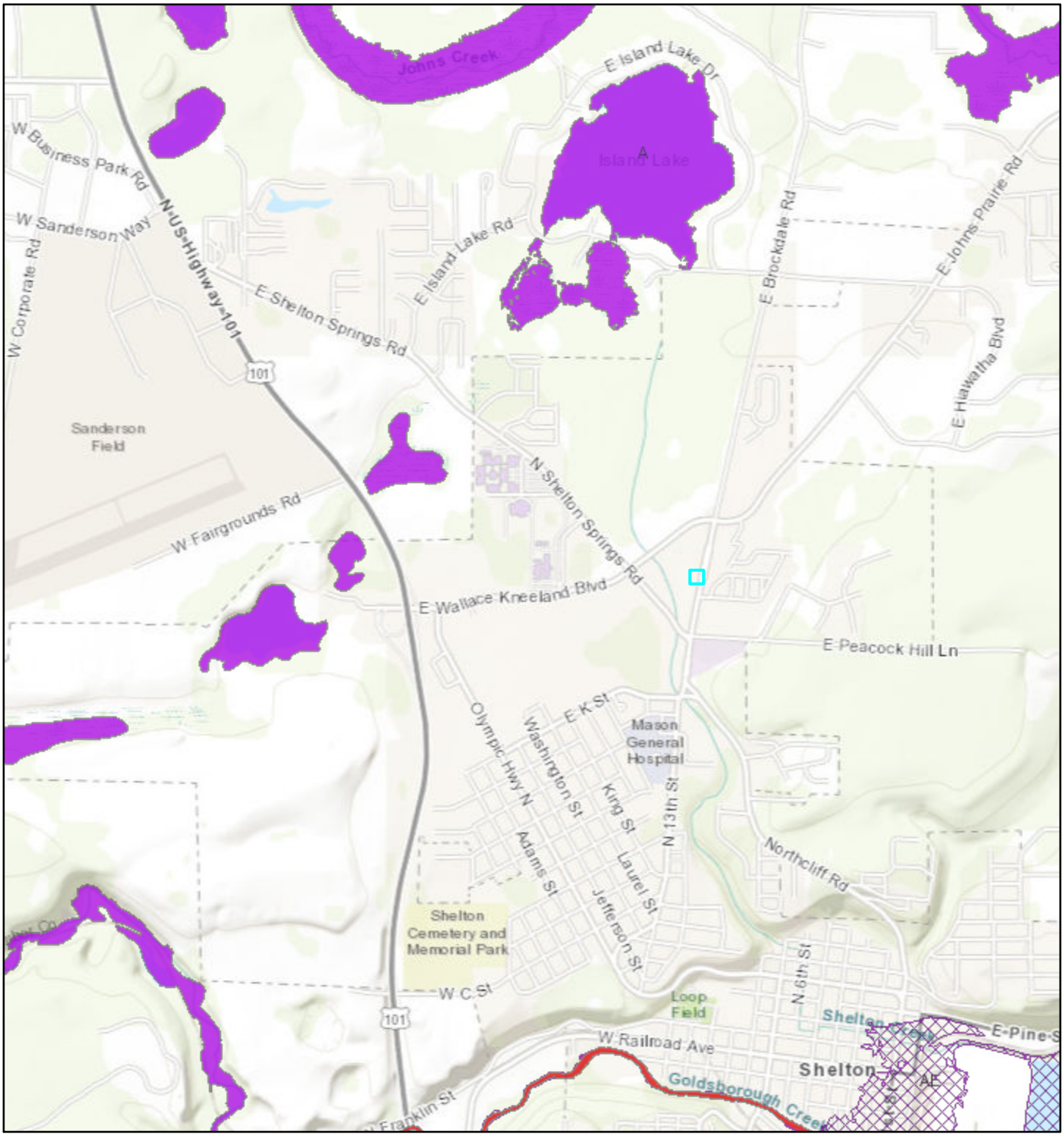
[1] Substantial Improvement means any repair, reconstruction, modernization or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either before the improvement or repair started or if the structure has been damaged before the damage occurred OR any repair reconstruction etc. that results in an increase of more than 20% of dwelling units or peak number of customers and employees (24 CFR 55.2(b)(8)

Mason County WA GIS Web Map



12/7/2020, 3:36:00 PM

1:24,565

0 0.2 0.4 0.8 mi

0 0.33 0.65 1.3 km

County Boundary

FEMA FIRM Map

A,

AE,

AE, FLOODWAY

AO,

OPEN WATER,

VE,

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Mason County WA GIS Web Map Application

Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS | Richard Diaz |

Historic Preservation for Washington State

24 CFR Part 58

General requirements	Legislation	Regulation
Protect sites, buildings, and objects with national, state or local historic, cultural and/or archeological significance. Identify effects of project on properties	National Historic Preservation Act, 16 U.S.C. 470(f), section 106	36 CFR Part 800 24 CFR Part 58.5(a)

1. Does the project include repair, rehabilitation or conversion of existing properties; new construction; demolition; the acquisition of undeveloped land; or any activity that requires ground disturbance (defined as one cubic foot of disturbed soil)?

☐ No: STOP here. The Section 106 Historic Preservation review is complete.
Record your determination on the Statutory Worksheet or Environmental Assessment.

☒ Yes: PROCEED to #**2**

2. Does the project involve a structure that is less than 45 years old, is not in a historic district and has no ground disturbing activities?

☐ Yes: STOP here. The Section 106 Historic Preservation review is complete.
Record your determination that there is no potential to cause effect, including the age of the existing building and information from the National Register to show that the activity is not in a historic district, on the Statutory Worksheet or Environmental Assessment.

☒ No: PROCEED to #**3**

3. Consult with SHPO or THPO and any tribes or groups that may have an interest in the project to determine if the project is eligible for the National Historic Register.

- You must define and consider the Area of Potential Effect (APE). The APE is the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties. The APE is influenced by the scale and nature of an undertaking. (36 CFR Part 800.16).

- Determine if there are tribes or groups that have an interest in the historic aspects of the project and invite them to participate in the consultation. For ground disturbing activities, you must make a reasonable and good faith effort to identify Indian tribes that may have an interest. HUD's website lists interested tribes by county: http://egis.hud.gov/tdat/Tribal.aspx. It is suggested that you go to the Tribal website or contact the SHPO to make sure contact information is current.

- Consult the State Historic Preservation Officer (SHPO), or if the project is on certain tribal lands, the Tribal Historic Preservation Officer (THPO), with details of the project and project site and your determination if it is eligible for the National Historic Register. SHPO or THPO has 30 days from receipt of a well-documented request of review of your determination. We recommend sending the letter with a return receipt form to document the contact. If they do not respond within the timeframe, or provide a description of additional information needed, you may proceed with the next step of the process based on your finding or consult with the Advisory Council on Historic Preservation (ACHP).

Visit the Region X environmental website for specific information about the Historic Preservation process in your state: http://www.hud.gov/local/shared/working/r10/environment/index.cfm?state=wa

State Historic Preservation Officer contacts: http://www.nps.gov/nr/shpolist.htm
Tribal Historic Preservation Officers contacts: http://www.nathpo.org/map.html

Proceed as appropriate based on the Finding:

☒ **No Historic Properties Affected:** STOP here. The Section 106 Historic Preservation review is complete. Attach SHPO/THPO concurrence, copies of letters to and from other interested parties and the tribes, and your response to the ERR. If SHPO/THPO did not respond within 30 days, your dated letter documents

compliance. Record your determination of no historic properties affected on the Statutory Worksheet or Environmental Assessment.

☐ **No Adverse Effect on Historic Property**: STOP here. The Section 106 Historic Preservation review is complete. **Categorically Excluded projects (24 CFR Part 58.35(a)) CANNOT convert to exempt with this determination**.
Attach SHPO/THPO concurrence, copies of letters to and from other interested parties and the tribes, and your response to the ERR. Record your determination of no adverse affect on historic properties on the Statutory Worksheet or Environmental Assessment.

☐ **Adverse Effect on Historic Property** Resolve Adverse Effects per 800.6 in consultation with SHPO/THPO, the ACHP if participating, and any consulting parties. The loan or grant may not be approved until adverse effects are resolved according to 800.6 or you have complied with 36 CFR Part 800. **Categorically Excluded projects (24 CFR Part 58.35(a)) CANNOT convert to exempt with this determination**.
Make sure that the resolution is fully documented in your ERR with all SHPO/THPO correspondence, copies of letters to and from other interested parties and the tribes, surveys, MOAs etc.

Archeological Consultation

Project: Quixote Communities, Shelton Veterans Village

Subject Property: 2471 N 13th St, Shelton, WA

Quixote Communities proposes to receive state and federal financial assistance to develop Shelton Veterans Village at 2471 N 13th St in Shelton WA that includes soil disturbance. This form documents archeological consultation under GEO 05-50 and NEPA Section 106.

GEO 05-05 Consultation

Quixote Communities consulted with state-designated tribes as required by Washington State Executive Order GEO 05-05 following allocation of Washington State funding. This consultation is not a NEPA requirement. Consultation results were:

Tribe	Consultation Initiated	Consultation Received	THPO Comment
Squaxin Island Tribe	7/16/2020	None	None
Skokomish Indian Tribe	7/16/2020	None	None
Yakama Nation	7/16/2020	None	None

NEPA Section 106 Consultation - THPO

City of Shelton initiated government-to-government tribal archeological consultation per NEPA Section 106 with TDAT-identified tribes in anticipation of federal funding. Consultation was initiated via USPS Certified Mailing (see attached) as well-documented consultation. Consultation was initiated as of the date each tribe received notice. One exception is Skokomish tribe where USPS reported that no authorized recipient was available to receive delivery. USPS certified mailing re-delivery was scheduled for 12/23/2020 but USPS continues to report the notice is "In Transit". Delivery difficulty is likely due to COVID. Additional steps were taken to initiate Skokomish tribe consultation. On 12/21/2020, an email was sent to Kris Miller, THPO (shlanay1@skokomish.org). On 12/23/2020, a non-certified letter was mailed via USPS to Kris Miller at the Skokomish Tribe mailing address. Consultation was determined initiated for Skokomish tribe on 12/28/2020.

Consultation results are:

Tribe & Certified Mailing Number	Consultation Initiated	30-Day Consultation Period Expires	THPO Comment
Confederated Tribes of Warm Springs 7020 1810 0000 7780 5163	12/14/2020	1/13/2021 Consultation Expired	None
Confederated Tribes of Chehalis 7020 1810 7780 5156	12/14/2020	1/13/2021 Consultation Expired	None

Squaxin Island Tribe 7020 1810 0000 7780 5149	12/12/2020	1/11/2021 Consultation Expired	None
Skokomish Indian Tribe 7020 1810 0000 7780 5132	12/28/2020	1/11/2021 Consultation Received	"not aware of any cultural/archeological resources in th project area"
Suquamish Indian Tribe of Port Madison Reservation 7020 1810 0000 7780 5125	12/14/2020	1/7/2021 Consultation Received	"does not have concerns related to cultural resources"

NEPA Section 106 Consultation - SHPO (DAHP)

On March 7, 2019, the Washington State Department of Archeology and Historic Preservation (DAHP) issued a "Determination of No Cultural Resource Impact" (attached) to WA Commerce in response to an EZ-1 archeological consultation following allocation of Washington State funding.

On November 25, 2020, DAHP issued a "Determination of No Cultural Resource Impact" (attached) in response to a NEPA Section 106 EZ-1 archeological consultation in anticipation of federal funding.

Determination

After considering SHPO and THPO consultations to well documented consultation requests, the Responsible Entity determines that the subject property has no documented archeological resources and is not eligible for inclusion in the National Register. No further review is required and NEPA review will proceed per 36 CFR 800.3(c)(4). Upon NEPA completion, project excavation may proceed under the project's Unanticipated Discovery Plan.

PLAN AND PROCEDURES FOR THE UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

SHELTON VETERANS VILLAGE
2471 NORTH 13TH STREET

1. INTRODUCTION

The plan and procedures for the unanticipated discovery of cultural resources and human skeletal remains delineated below are applicable for the construction site located at 2471 North 13th Street, Shelton, WA, which has been targeted for the construction of 30 units of housing for homeless veterans.

The following Unanticipated Discovery Plan (UDP) outlines procedures to follow, in accordance with state and federal laws, if archaeological materials or human remains are discovered.

2. RECOGNIZING CULTURAL RESOURCES

A cultural resource discovery could be prehistoric or historic. Examples include:

- An accumulation of shell, burned rocks, or other food related materials
- Bones or small pieces of bone,
- An area of charcoal or very dark stained soil with artifacts,
- Stone tools or waste flakes (i.e. an arrowhead, or stone chips),
- Clusters of tin cans or bottles, logging or agricultural equipment that appears to be older than 50 years,
- Buried railroad tracks, decking, or other industrial materials. When in doubt, assume the material is a cultural resource.

3. ON-SITE RESPONSIBILITIES

STEP 1: STOP WORK. If any Quixote Communities' (QC) employee, general contractor or subcontractor believes that he or she has uncovered a cultural resource at any point in the project, all work adjacent to the discovery must stop. The discovery location should be secured at all times.

STEP 2: NOTIFY MONITOR. If there is an archaeological monitor for the project, notify that person. If there is a monitoring plan in place, the monitor will follow its provisions.

STEP 3: NOTIFY QC AND DEVELOPMENT CONSULTANT. Contact QC/ Development Consultant for guidance.

QC Executive Director

Development Consultant

Jaycie Osterberg
360-791-8999
Jaycie.osterberg@quixotevillage.com

Stephen Taul
509-890-1208
stephent@communityframeworks.org

The Development Consultant will make all other calls and notifications including the Washington State Department of Health, the Department of Archaeology and Historic Preservation (DAHP) and the Tribes(s).

If human remains are encountered, treat them with dignity and respect at all times. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. Do not call 911 or speak with the media.

4. FURTHER CONTACTS AND CONSULTATION

A. Site Superintendent Responsibilities:

- Protect Find: The Site Superintendent is responsible for taking appropriate steps to protect the discovery site. All work will stop in an area adequate to provide for the total security, protection, and integrity of the resource. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed following provisions for treating archaeological/cultural material as set forth in this document.

- Direct Construction Elsewhere On-site: The Site Superintendent may direct construction away from cultural resources to work in other areas prior to contacting the concerned parties.

- Identify Find: The Site Superintendent will ensure that a qualified professional archaeologist examines the find to determine if it is archaeological.

  - If it is determined not archaeological, work may proceed with no further delay.

  - If it is determined to be archaeological, the Site Superintendent will continue with notification.

  - If the find may be human remains or funerary objects, the Site Superintendent will ensure that a qualified physical anthropologist examines the find. If it is determined to be human remains, the procedure described in Section 5 will be followed.

- Notify DAHP: The Development Consultant will contact the involved federal agencies (if any) and the Department of Archaeology and Historic Preservation (DAHP).

Department of Archaeology and Historic Preservation:

Rob Whittam, Ph.D.	Dr. Guy Tasa
State Archaeologist	State Physical Anthropologist

360-586-3080 360-586-3534
Rob.whitlam@dahp.wa.gov Guy.Tasa@dahp.wa.gov

- Notify Tribes: The Development Consultant will contact SHPO and project Tribal Liaison.

  Tribal Historic Preservation Officers:

  Per GEO 05-05

  Kris Miller, THPO
  *Skokomish Tribal Center
  80 North Tribal Center Road
  Skokomish Nation, WA 98584

  Rhonda Foster, THPO
  *Squaxin Island Tribe
  10 SE Squaxin Lane
  Shelton, WA 98584

  George Selam, THPO
  The Yakama Nation - Main Agency Offices
  P.O. Box 151
  Toppenish, WA 98948

  Per NEPA Section 106

  Confederated Tribes of Warm Springs
  Robert Brunoe, THPO
  PO Box C
  Warm Springs, OR 97761

  Confederated Tribes of Chehalis
  Dan Penn, THPO
  420 Howanut Road
  Oakville, WA 98568

  *Squaxin Island Tribe
  Rhonda Foster, THPO
  10 E Squaxin Lane
  Shelton, WA 98584

  *Skokomish Indian Tribe
  Kris Miller, THPO
  80 N Tribal Center Road
  Shelton, WA 98584

  Suquamish Indian Tribe of Port Madison Reservation
  Dennis E Lewarch, THPO
  PO Box 498
  Suquamish, WA 98392

  *Tribes consulted separately under both GEO-0505 and NEPA

B. Further Activities

- Archaeological discoveries will be documented as described in Section 6.
- Construction in the discovery area may resume as described in Section 7.

5. SPECIAL PROCEDURES FOR THE DISCOVERY OF HUMAN SKELETAL MATERIAL

Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect.

If the project occurs on federal lands (e.g., national forest or park, military reservation) the provisions of the Native American Graves Protection and Repatriation Act of 1990 apply, and the responsible federal agency will follow its provisions. Note that state highways that cross federal lands are on an easement and are not owned by the state.

If the project occurs on non-federal lands, City of Shelton will comply with applicable state and federal laws, and the following procedure:

A. Notify Law Enforcement Agency or Coroner's Office:

In addition to the actions described in Sections 3 and 4, the Site Superintendent will immediately notify the local law enforcement agency or coroner's office.

The coroner (with assistance of law enforcement personnel) will determine if the remains are human, whether the discovery site constitutes a crime scene, and will notify DAHP.

Mason County Coroner
360-426-4441 (dispatch)

B. Participate in Consultation:

Per RCW 27.44.055, RCW 68.50, and RCW 68.60, DAHP will have jurisdiction over non-forensic human remains. Washington State Department of Health and the affected Tribes will participate in consultation.

C. Further Activities:

Documentation and a plan for reburial of the human skeletal remains and funerary objects will be agreed upon through the consultation process described in RCW
27.44.055, RCW 68.50, and RCW 68.60.

When consultation and documentation activities are complete, construction in the discovery area may resume as described in Section 7.

6. DOCUMENTATION OF ARCHAEOLOGICAL MATERIALS

Archaeological deposits discovered during construction will be assume eligible for inclusion in the National Register of Historic Places under Criterion D until a formal Determination of Eligibility is made.

Project staff will ensure the proper documentation and assessment of any discovered cultural resources in cooperation with the federal agencies (if any), DAHP, affected tribes, and a contracted consultant (if any).

All prehistoric and historic cultural material discovered during project construction will be recorded by a professional archaeologist on State of Washington cultural resource site or isolate form using standard techniques. Site overviews, features, and artifacts will be photographed; stratigraphic profiles and soil/sediment descriptions will be prepared for subsurface exposures. Discovery locations will be documented on scaled site plans and site location maps.

Cultural features, horizons and artifacts detected in buried sediments may require further evaluation using hand-dug test units. Units may be dug in controlled fashion to expose features, collect samples from undisturbed contexts, or interpret complex stratigraphy. A test excavation unit or small trench might also be used to determine if an intact occupation surface is present. Test units will be used only when necessary to gather information on the nature, extent, and integrity of subsurface cultural deposits to evaluate the site's significance. Excavations will be conducted using state-of-the-art techniques for controlling provenience.

Spatial information, depth of excavation levels, natural and cultural stratigraphy, presence or absence of cultural material, and depth to sterile soil, regolith, or bedrock will be recorded for each probe on a standard form. Test excavation units will be recorded on unit-level forms, which include plan maps for each excavated level, and material type, number, and vertical provenience (depth below surface and stratum association where applicable) for all artifacts recovered from the level. A stratigraphic profile will be drawn for at least one wall of each test excavation unit.

Sediments excavated for purposes of cultural resources investigation will be screened through 118-inch mesh, unless soil conditions warrant Y4-inch mesh.

All prehistoric and historic artifacts collected from the surface and from probes and excavation units will be analyzed, catalogued, and temporarily curated. Ultimate disposition of cultural materials will be determined in consultation with the federal agencies (if any), DAHP, and the affected tribes.

Within 90 days of concluding fieldwork, a technical report describing any and all monitoring and resultant archaeological excavations will be provided to the Capital Projects Manager, who will forward the report to the Washington State Department of Health's DWSRF Program Manager for review and delivery to the federal agencies (if any), SHPO, and the affected tribe(s).

If assessment activity exposes human remains (burials, isolated teeth, or bones), the process described in Section 5 above will be followed.

7. PROCEEDING WITH CONSTRUCTION

Project construction outside of a 200-foot radius of the discovery location may continue while documentation and assessment of the cultural resources proceed. The Development Consultant and Site Superintendent must determine the boundaries of the discovery location. In consultation with DAHP, DOH and the affected tribes, the two will determine the appropriate level of documentation and treatment of the resource. If federal agencies are involved, the agencies will make the final determinations about treatment and documentation.

Construction may continue at the discovery location only after the process outlined in this plan is followed and DOH (and the federal agencies, if any) determines that compliance with state and federal laws is complete.

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

November 25, 2020

Mr. Paul Trautman
Community Frameworks
907 W. Riverside Ave
Spokane, WA 99201

Re: Shelton Veterans Village Project
Log No.: 2019-03-01623-HUD

Dear Mr. Trautman;

Thank you for contacting our Department. We have reviewed the materials you provided for the proposed Shelton Veterans Village Project, Shelton, Mason County, Washington.

We concur with a determination of No Historic Properties Affected with the stipulation for an unanticipated discovery plan.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribe's cultural staff and cultural committee and this department notified.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and the implementing regulations 36CFR800.4. Should additional information become available, our assessment may be revised, including information regarding historic properties that have not yet been identified. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 890-2615
email: *rob.whitlam@dahp.wa.gov*

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

March 7, 2019

Ms. Sarah Alway
Department of Commerce
PO Box 42525
Olympia, Washington 98504

Re: Shelton Veterans Village Project
Log No.: 2019-03-01623-COMM

Dear Ms. Alway;

We have been contacted by Mr. Stephen Taul, representing Community Frameworks, pursuant to Executive Order 05-05. We have reviewed the materials he provided for the proposed Shelton Veterans Village Project, Shelton, Mason County, Washington.

We concur with a Determination of No cultural resource impacts with the stipulation for an unanticipated discovery plan.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive.

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribes and this department notified

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with Executive Order 05-05. Should additional information become available, our assessment may be revised, including information regarding historic properties that have not yet been identified.

Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: *rob.whitlam@dahp.wa.gov*

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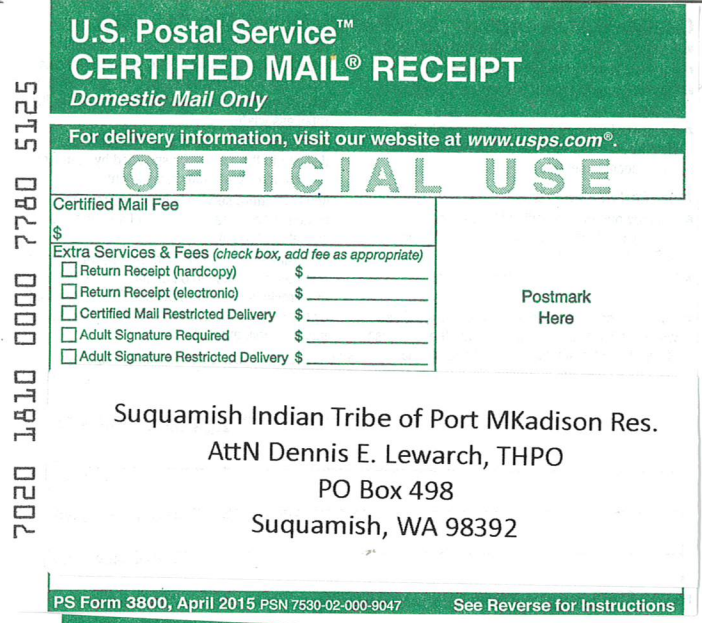
Skokomish Indian Tribe
Attn: Kris Miller, THPO
80 N. Tribal Center Rd.
Shelton, WA 98584



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Suquamish Indian Tribe of Port MKadison Res.
AttN Dennis E. Lewarch, THPO
PO Box 498
Suquamish, WA 98392

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Confederated Tribes of Chehalis
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420 Howanut Rd.
Oakville, WA 98568

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Squaxin Island Tribe
Attn: Rhonda Foster, THPO
10 E. Squaxin Lane
Shelton, WA 98584

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7020 1810 0000 7780 5163

Confederated Tribes of Warm Springs
Attn: Robert Brunoe, THPO
PO Box C
Warm Springs, OR 97761

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December 10, 2020

Suquamish Indian Tribe of Port Madison Reservation
Attn: Dennis E Lewarch, THPO
PO Box 498
Suquamish, WA 98392

RE: SHELTON VETERANS VILLAGE SECTION 106 CONSULTATION
2471 N 13TH ST, SHELTON, WA
SECTION: 7
TOWNSHIP: 20 NORTH
RANGE: 3 WEST

Dear THPO:

Quixote Communities is seeking federal HUD funds to assist in developing new affordable housing to include soil disturbance at the project site listed above. Per HUD regulation 24 CFR 58.4, City of Shelton has undertaken the role of Responsible Entity under NEPA, including Section 106 tribal consultation. We invite your consultation to identify documented areas of religious and/or cultural significance to your tribe located within the project site. This project seeks to minimize or mitigate potential adverse effects.

Please see the attached map for the project site and scope at 2471 N 13th St, Shelton, WA.

Washington DAHP consultation revealed no documented archeological sites at the project location. However, the project will stop work and follow its Unanticipated Discovery Plan, including contacting you and Washington DAHP for additional consultation, if remains or cultural resources are discovered during project excavation.

Please provide your consultation to Jason Dose, City of Shelton Senior Planner as soon as possible, but no later than 30 days from receipt of this letter, by email at jason.dose@sheltonwa.gov or by letter to 525 W Cota St, Shelton, WA 98584. We would also appreciate a response if you do not wish to consult on this project at your earliest convenience. Please contact me with any questions you might have.

Thank you. We look forward to your consultation.

Sincerely,

Jason Dose, Senior Planner
City of Shelton

The project site is 2471 N 13th St, Shelton, WA. Section 7, Township 20 N, Range 3W.

Project scope includes placing approximately 30 "tiny home" units on foundations, constructing a community building, and installing a paved parking area on this site. Soil disturbance will include excavation up to 3 feet deep for foundations, underground utilities, fencing, site drainage/swale, and related new construction activities.

December 10, 2020

Skokomish Indian Tribe
Kris Miller, THPO
80 N Tribal Center Road
Shelton, WA 98584

RE: SHELTON VETERANS VILLAGE SECTION 106 CONSULTATION
2471 N 13TH ST, SHELTON, WA
SECTION: 7
TOWNSHIP: 20 NORTH
RANGE: 3 WEST

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December 10, 2020

Squaxin Island Tribe
Attn: Rhonda Foster, THPO
10 E Squaxin Lane
Shelton, WA 98584

RE: SHELTON VETERANS VILLAGE SECTION 106 CONSULTATION
2471 N 13TH ST, SHELTON, WA
SECTION: 7
TOWNSHIP: 20 NORTH
RANGE: 3 WEST

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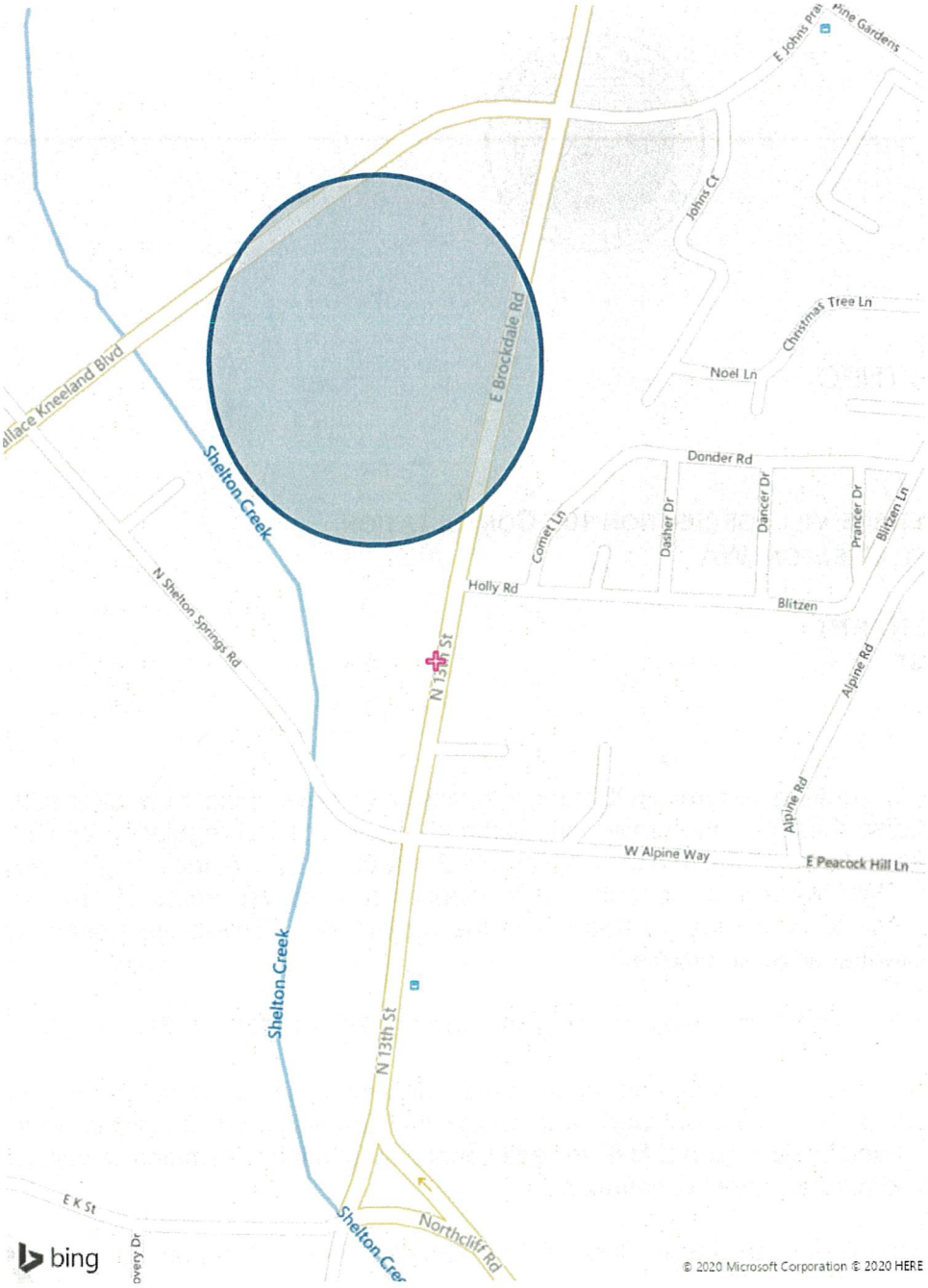
Thank you. We look forward to your consultation.

Sincerely,

Jason Dose, Senior Planner
City of Shelton



The project site is 2471 N 13th St, Shelton, WA. Section 7, Township 20 N, Range 3W.

Project scope includes placing approximately 30 "tiny home" units on foundations, constructing a community building, and installing a paved parking area on this site. Soil disturbance will include excavation up to 3 feet deep for foundations, underground utilities, fencing, site drainage/swale, and related new construction activities.

December 10, 2020

Confederated Tribes of Chehalis
Attn: Dan Penn, THPO
420 Howanut Road
Oakville, WA 98568

RE: SHELTON VETERANS VILLAGE SECTION 106 CONSULTATION
2471 N 13TH ST, SHELTON, WA
SECTION: 7
TOWNSHIP: 20 NORTH
RANGE: 3 WEST

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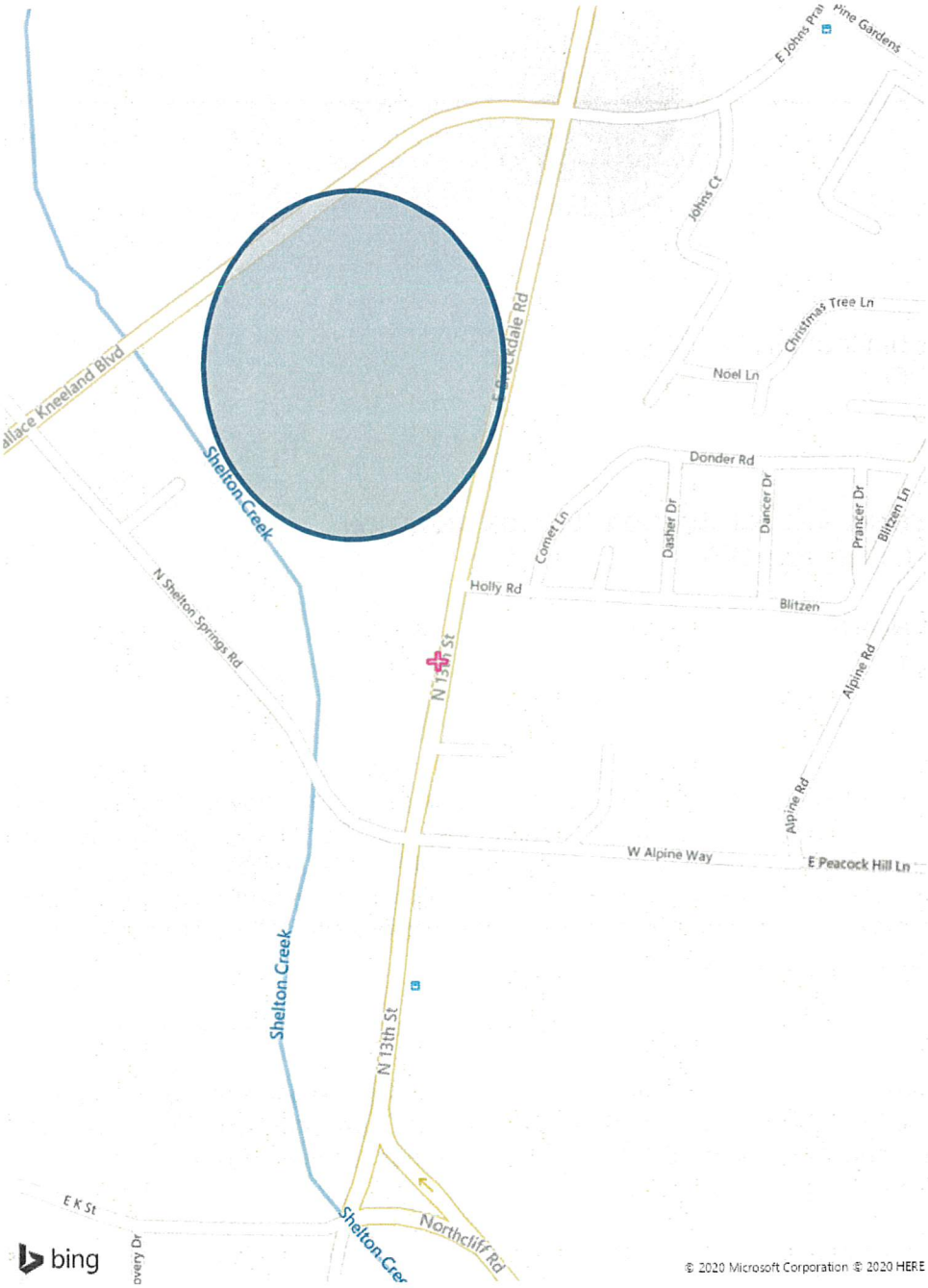
Thank you. We look forward to your consultation.

Sincerely,

Jason Dose, Senior Planner
City of Shelton



The project site is 2471 N 13th St, Shelton, WA. Section 7, Township 20 N, Range 3W.

Project scope includes placing approximately 30 "tiny home" units on foundations, constructing a community building, and installing a paved parking area on this site. Soil disturbance will include excavation up to 3 feet deep for foundations, underground utilities, fencing, site drainage/swale, and related new construction activities.

December 10, 2020

Confederated Tribes of Warm Springs
Attn: Robert Brunoe, THPO
PO Box C
Warm Springs, OR 97761

RE: SHELTON VETERANS VILLAGE SECTION 106 CONSULTATION
2471 N 13TH ST, SHELTON, WA
SECTION: 7
TOWNSHIP: 20 NORTH
RANGE: 3 WEST

Dear THPO:

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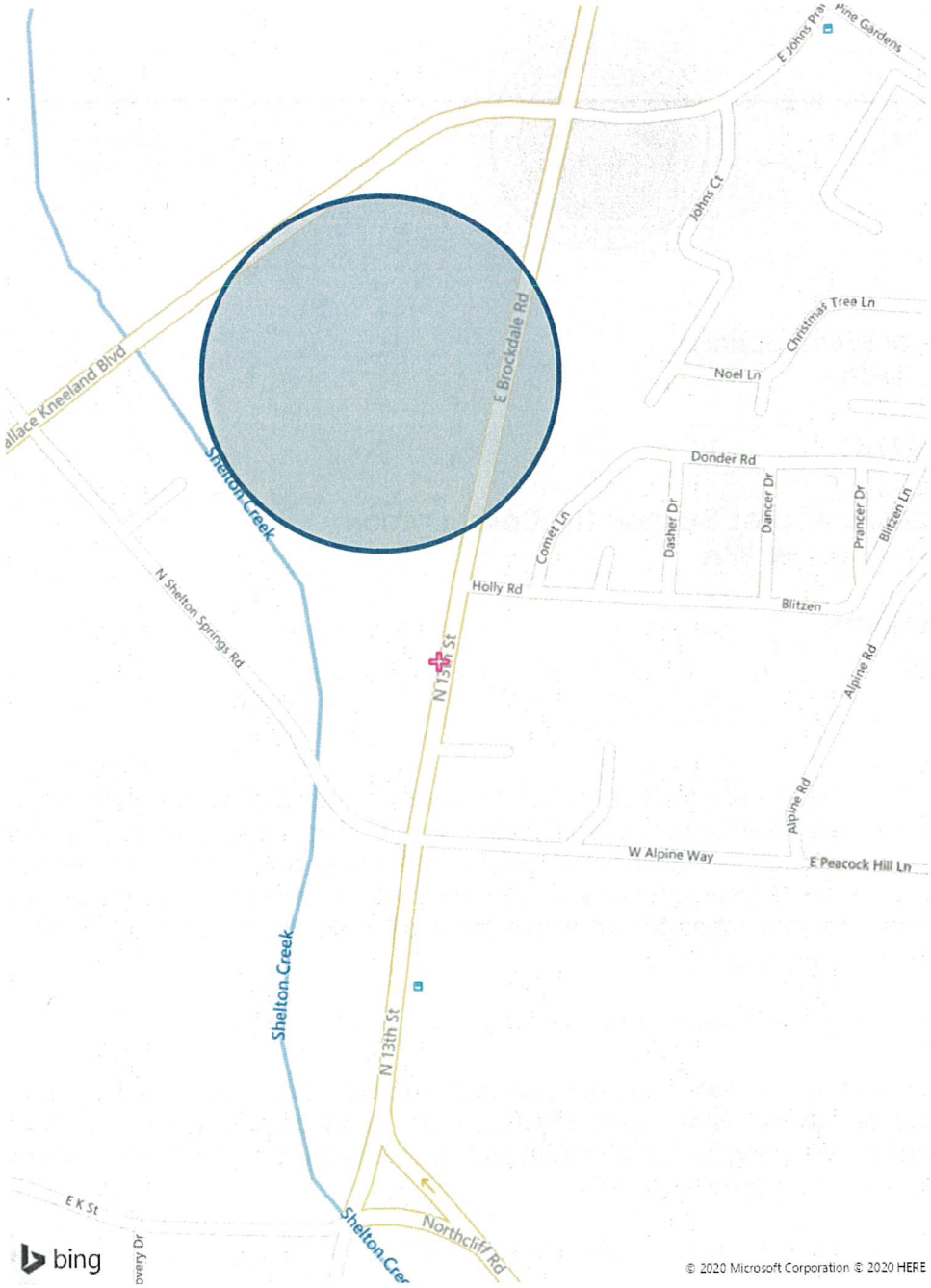
Please provide your consultation to Jason Dose, City of Shelton Senior Planner as soon as possible, but no later than 30 days from receipt of this letter, by email at jason.dose@sheltonwa.gov or by letter to 525 W Cota St, Shelton, WA 98584. We would also appreciate a response if you do not wish to consult on this project at your earliest convenience. Please contact me with any questions you might have.

Thank you. We look forward to your consultation.

Sincerely,

Jason Dose, Senior Planner
City of Shelton



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Email: PAULT@COMMUNITYFRAMEWORKS.ORG
Phone: 509-890-1209

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Redelivery Type: USPS® Carrier Redelivery

Redelivery Date: 12/23/2020

Name and Primary Address:
PAUL TRAUTMAN
COMMUNITY FRAMEWORKS (FOR CITY OF SHELTON)
525 W COTA ST
SHELTON, WA 98584-2239

Phone:
509-890-1209

Email:
PAULT@COMMUNITYFRAMEWORKS.ORG

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FAQs

Paul Trautman

From: Paul Trautman
Sent: Monday, December 21, 2020 10:52 AM
To: shlanay1@skokomish.org
Cc: Jason Dose
Subject: Section 106 Consultation - Shelton Veterans Village
Attachments: Skokomish consultation.pdf

Ms. Miller – please find the attached copy of a Section 106 Skokomish tribal consultation request for Shelton Veterans Village, an affordable housing construction project by nonprofit Quixote Communities. Quixote Communities asked that its consultant Community Frameworks and City of Shelton coordinate on Section 106 tribal consultation regarding anticipated federal funding for this project.

City of Shelton mailed this Section 106 consultation request via USPS certified mail on December 10, 2020. However, USPS reports this notice could not be delivered because no authorized recipient is available to sign. We believe this is due to COVID stay-at-home orders. Therefore, we will attempt Skokomish tribe consultation via USPS non-certified mailing and this email. Note that USPS will attempt to redeliver the original certified mailing on December 23 but plans to return this mailing to sender on or about January 3, 2021.

Paul Trautman

Community Frameworks I *Senior Housing Developer*

907 W. Riverside Ave

Spokane, WA 99201

Direct Line: 509-890-1209

pault@communityframeworks.org

Website I

Housing Solutions For The Northwest

December 10, 2020

Skokomish Indian Tribe
Kris Miller, THPO
80 N Tribal Center Road
Shelton, WA 98584

RE: SHELTON VETERANS VILLAGE SECTION 106 CONSULTATION
2471 N 13TH ST, SHELTON, WA
SECTION: 7
TOWNSHIP: 20 NORTH
RANGE: 3 WEST

Dear THPO:

Quixote Communities is seeking federal HUD funds to assist in developing new affordable housing to include soil disturbance at the project site listed above. Per HUD regulation 24 CFR 58.4, City of Shelton has undertaken the role of Responsible Entity under NEPA, including Section 106 tribal consultation. We invite your consultation to identify documented areas of religious and/or cultural significance to your tribe located within the project site. This project seeks to minimize or mitigate potential adverse effects.

Please see the attached map for the project site and scope at 2471 N 13th St, Shelton, WA.

Washington DAHP consultation revealed no documented archeological sites at the project location. However, the project will stop work and follow its Unanticipated Discovery Plan, including contacting you and Washington DAHP for additional consultation, if remains or cultural resources are discovered during project excavation.

Please provide your consultation to Jason Dose, City of Shelton Senior Planner as soon as possible, but no later than 30 days from receipt of this letter, by email at jason.dose@sheltonwa.gov or by letter to 525 W Cota St, Shelton, WA 98584. We would also appreciate a response if you do not wish to consult on this project at your earliest convenience. Please contact me with any questions you might have.

Thank you. We look forward to your consultation.

Sincerely,

Jason Dose, Senior Planner
City of Shelton

The project site is 2471 N 13th St, Shelton, WA. Section 7, Township 20 N, Range 3W.

Project scope includes placing approximately 30 "tiny home" units on foundations, constructing a community building, and installing a paved parking area on this site. Soil disturbance will include excavation up to 3 feet deep for foundations, underground utilities, fencing, site drainage/swale, and related new construction activities.

Paul Trautman

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Sent:	Monday, December 21, 2020 10:52 AM
To:	shlanay1@skokomish.org
Cc:	Jason Dose
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Attachments:	Skokomish consultation.pdf

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Paul Trautman

Community Frameworks | *Senior Housing Developer*

907 W. Riverside Ave

Spokane, WA 99201

Direct Line: 509-890-1209

pault@communityframeworks.org

Website |

Housing Solutions For The Northwest

12/23/2020
Please see attached.
Thank you Paul

December 10, 2020

Skokomish Indian Tribe
Kris Miller, THPO
80 N Tribal Center Road
Shelton, WA 98584

RE: SHELTON VETERANS VILLAGE SECTION 106 CONSULTATION
2471 N 13TH ST, SHELTON, WA
SECTION: 7
TOWNSHIP: 20 NORTH
RANGE: 3 WEST

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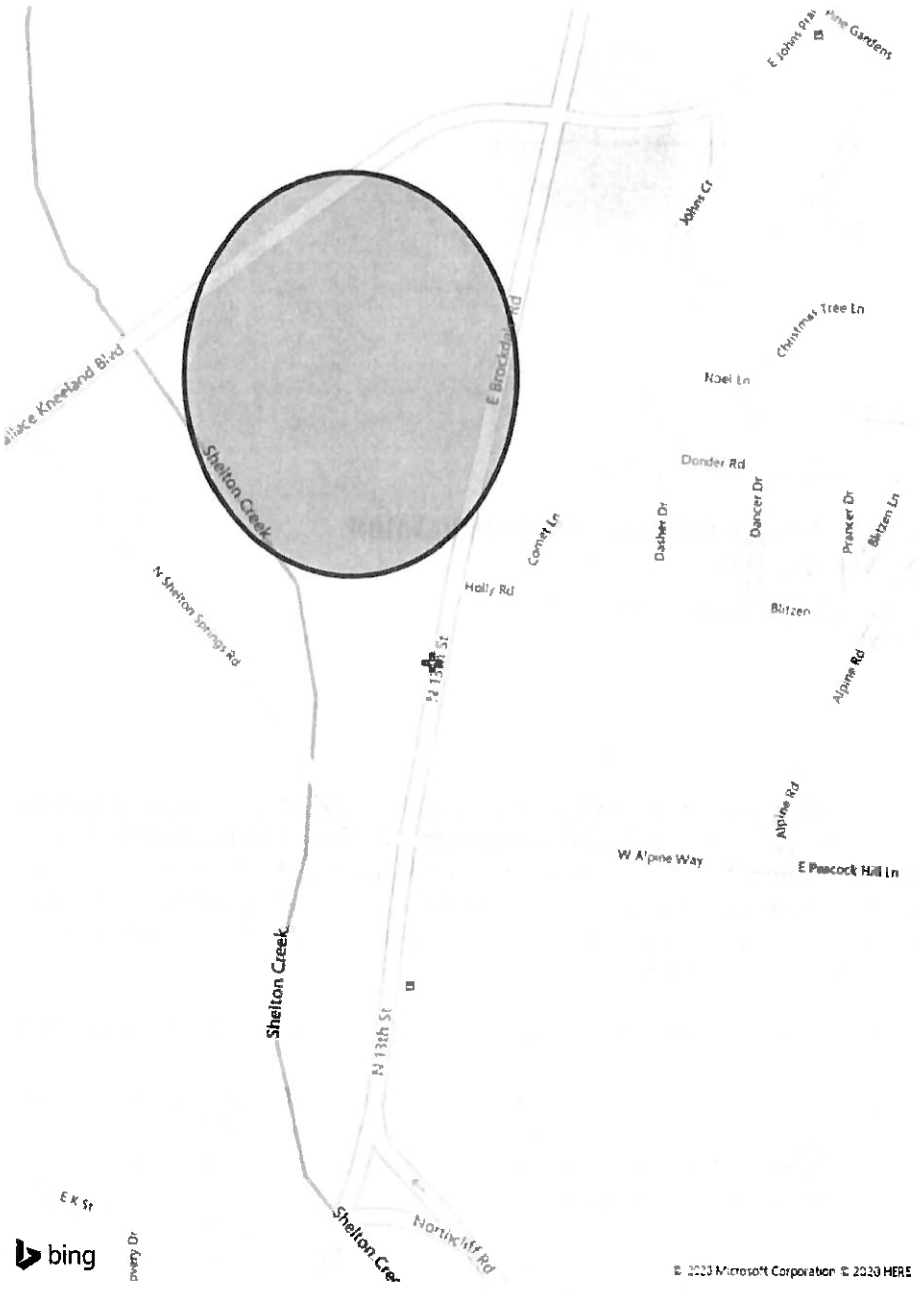
Thank you. We look forward to your consultation.

Sincerely,

Jason Dose, Senior Planner
City of Shelton



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From: Dennis Lewarch [mailto:dlewarch@Suquamish.nsn.us]
Sent: Thursday, January 7, 2021 12:14 PM
To: Jason Dose <jason.dose@sheltonwa.gov>
Subject: Suquamish Tribe comment on the Shelton Veterans Village Section 106 Consultation

Hello Jason,

Thank you for consulting the Suquamish Tribe regarding the proposed Shelton Veterans Village Project. The Tribe does not have concerns related to cultural resources.

Best,

Dennis

Dennis E. Lewarch
Tribal Historic Preservation Officer
Archaeology and Historic Preservation Department
Treaty Protection and Natural Resources Division
Suquamish Tribe

Office Telephone:360-394-8529 *Cell*:360-509-1321 *FAX*:360-598-4666

Mailing Address:
P.O. Box 498
Suquamish, WA 98392

Suquamish Tribe Administration Building Street Address:
18490 Suquamish Way
Suquamish, WA 98392

Paul Trautman

From: Paul Trautman
Sent: Tuesday, January 12, 2021 2:13 PM
To: shlanay1@skokomish.org
Cc: Jason Dose
Subject: RE: Shelton Veterans Village Section 106
Attachments: Shelton - Unanticipated Discovery Plan - 072020.pdf

Ms. Miller – Thank you for your Section 106 consultation on the Shelton Veterans Village project. I have attached the project's Unanticipated Discovery Plan per your request.

Paul Trautman

Community Frameworks I *Senior Housing Developer*

907 W. Riverside Ave

Spokane, WA 99201

Direct Line: 509-890-1209

pault@communityframeworks.org

Website I

Housing Solutions For The Northwest

From: Miller, Kris [mailto:shlanay1@skokomish.org]
Sent: Monday, January 11, 2021 4:30 PM
To: Jason Dose <jason.dose@sheltonwa.gov>
Subject: Shelton Veterans Village Section 106

Mr. Dose,

The Skokomish THPO has received the information by mail regarding the proposed Shelton Veterans Village project. We have reviewed the APE and are not aware of any cultural/archaeological resources in the project area.

We would like a copy of the Unanticipated Discovery Plan for our files. If you have any further questions, please feel free to contact us.

Sincerely,

--
Kris Miller
Skokomish THPO
80 N Tribal Center Road
Skokomish, WA 98584

3350 Mottman Rd SW
Olympia, Washington 98512
O: (360) 338-0451
F: (360) 742-3740
info@quixotecommunities.org
www.quixotecommunities.org

July 7, 2020

Charles Miller, Chairman
Skokomish Tribal Center
80 North Tribal Center Road
Skokomish Nation, WA 98584

RE: Invitation to comment on Shelton Veterans Village

Dear Chairman Miller,

Quixote Communities is proposing to build a village for homeless veterans at 2471 North 13th Street, Shelton, WA 98584. This project is receiving funding through a direct appropriation from the 2015-2017 Capital Budget and therefore, is required to consult with you under Governor's Executive Order 05-05 regarding the potential to have cultural resource impacts on the Skokomish Tribe.

Shelton Veterans Village will include 30 single-room occupancy units with a sleeping area, closet, toilet, sink and shower. These units will be arranged on the site in seven four-plex buildings and one duplex. There will be a community building which will include staff offices, multi-purpose room, common kitchen, living/dining room and laundry facilities. See attached for current project design drawings.

As permanent supportive housing, the village will employ a resident advocate, property manager and mental health counselor. This is a similar model to Quixote Village, our first tiny house village in Olympia, WA which has been very successful. This project will enable formerly homeless veterans to maintain stable housing, find employment, complete educational programs and recover from substance abuse in a drug/alcohol-free environment.

No existing buildings or structures will be impacted as a result of project activities. Consultation with the State Department of Archaeology and Historic Preservation (DAHP) occurred last year and they concurred with a Determination of No Cultural Resource Impacts with the stipulation for an unanticipated discovery plan.

Should you have any further questions or want additional information, please contact our development consultant, Stephen Taul. He can be reached via email at stephent@communityframeworks.org or by phone at 509-890-1208.

Sincerely,

Jaycie Osterberg, Executive Director
Quixote Communities

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Olympia, Washington 98512
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July 7, 2020

Kris Miller, THPO
Skokomish Tribal Center
80 North Tribal Center Road
Skokomish Nation, WA 98584

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Dear Kris Miller,

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www.quixotecommunities.org

July 7, 2020

Arnold Cooper, Chairman
Squaxin Island Tribe
10 SE Squaxin Lane,
Shelton, WA 98584

RE: Invitation to comment on Shelton Veterans Village

Dear Chairman Cooper,

Quixote Communities is proposing to build a village for homeless veterans at 2471 North 13th Street, Shelton, WA 98584. This project is receiving funding through a direct appropriation from the 2015-2017 Capital Budget and therefore, is required to consult with you under Governor's Executive Order 05-05 regarding the potential to have cultural resource impacts on the Squaxin Island Tribe.

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www.quixotecommunities.org

July 7, 2020

Delano Saluskin, Chairman
The Yakama Nation Main Agency Offices
PO BOX 151
Toppenish, WA 98948

RE: Invitation to comment on Shelton Veterans Village

Dear Chairman Saluskin,

Quixote Communities is proposing to build a village for homeless veterans at 2471 North 13th Street, Shelton, WA 98584. This project is receiving funding through a direct appropriation from the 2015-2017 Capital Budget and therefore, is required to consult with you under Governor's Executive Order 05-05 regarding the potential to have cultural resource impacts on the Yakama Nation.

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July 7, 2020

Rhonda Foster, THPO
Squaxin Island Tribe
10 SE Squaxin Lane,
Shelton, WA 98584

RE: Invitation to comment on Shelton Veterans Village

Dear Rhonda Foster,

Quixote Communities is proposing to build a village for homeless veterans at 2471 North 13th Street, Shelton, WA 98584. This project is receiving funding through a direct appropriation from the 2015-2017 Capital Budget and therefore, is required to consult with you under Governor's Executive Order 05-05 regarding the potential to have cultural resource impacts on the Squaxin Island Tribe.

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July 7, 2020

Delano Saluskin, Chairman
The Yakama Nation Main Agency Offices
PO BOX 151
Toppenish, WA 98948

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July 7, 2020

George Selam, THPO
The Yakama Nation Main Agency Offices
PO BOX 151
Toppenish, WA 98948

RE: Invitation to comment on Shelton Veterans Village

Dear George Selam,

Quixote Communities is proposing to build a village for homeless veterans at 2471 North 13th Street, Shelton, WA 98584. This project is receiving funding through a direct appropriation from the 2015-2017 Capital Budget and therefore, is required to consult with you under Governor's Executive Order 05-05 regarding the potential to have cultural resource impacts on the Yakama Nation.

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Jaycie Osterberg, Executive Director
Quixote Communities

Noise Abatement and Control

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Encourage land use patterns for housing and other noise sensitive urban needs that will provide a suitable separation between them and major noise sources	Noise Control Act of 1972 The Quiet Communities Act of 1978 as amended OMB Circular 75-2, "Comparable Land Uses at Federal Airfields"	24 CFR Part 51 Subpart B Noise Guidebook

1. Is the project for new construction, purchase or resale of existing, modernization, or rehabilitation of noise sensitive use (i.e., housing, mobile home parks, nursing homes, hospitals, and other non-housing uses where quiet is integral to the project's function, e.g., libraries)?

☐No: STOP here. The project is not subject to the noise standards. Maintain documentation on the nature of the project. Record your determination that the project is not subject to the noise standards in your Environmental Review Record (ERR).
☒Yes: PROCEED to #**2**

2. Is the project located within 1,000 feet of a busy road or highway, 3,000 feet of a railroad, or 15 miles of a civil airport or military airfield? Are there any other potential noise sources in the project vicinity that could produce a noise level above HUD's acceptable range, including but not limited to concert halls, night clubs, event facilities, etc…. ?

☐No: STOP here. Maintain a map identifying distances from roads, railroads and airports and your project. Record your determination. You do not need to calculate a specific noise level.
☒Yes: PROCEED to #**3**

3. Determine the actions to take based on the project and HUD Acceptability Standards.
Is the activity for:

☒ Construction of new noise sensitive use**. Calculate noise using HUD standards or online tool:** https://www.hudexchange.info/environmental-review/dnl-calculator **PROCEED to 3.a**
☐ **Purchase or resale of existing buildings** (existing buildings are either more than 1 year old or buildings for which this is the second or subsequent purchaser). Noise calculation is not required. HUD or RE determines need based on their evaluation of project. Proceed to 3.b
☐**Modernization**. Noise calculation is not required. HUD or RE determines need based on their evaluation of project. Proceed to 3.c
☐Major or substantial rehabilitation **(use the definition contained in the specific program guidelines). Calculate noise using HUD standards or online tool:**
https://www.hudexchange.info/environmental-review/dnl-calculator **Proceed to 3.d**

HUD General Acceptability Standards	
HUD determination	***Day night average sound level in decibels (dB)***
Acceptable	Not exceeding 65 dB
Normally Unacceptable	Above 65 dB but not exceeding 75dB
Unacceptable	Above 75 dB +

Noise Abatement and Control

Checklist for HUD or Responsible Entity

New Construction

Is the Day-Night average sound level:

☐ Above 75 dB. **Construction of new noise sensitive uses is generally prohibited**, an EIS is required prior to the approval. The Assistant Secretary or Certifying Officer may waive the EIS requirement in cases where noise is the only environmental issue and no outdoor sensitive activity will take place on the site. (Under § Part 50 approval is required of the Assistant Secretary for CPD, under § Part 58 the Certifying Officer must provide approval). The project must be mitigated to acceptable standanrds. Document the ERR with the noise calculation, EIS, EIS waiver if approved, mitigation requirements and when complete, evidence of mitigation..

☐ Above 65 dB but not exceeding 75 dB. **Construction of new noise sensitive uses is discouraged** – all new projects require special environmental reviews and may require special approvals prior to construction (except when the threshold has been shifted to 70 dB as described below). Information is provided at 51.104 (b)(1). Document ERR include the noise calculation, special review and approval. Document mitigation requirements and when complete, evidence of mitigation.

☒ Not exceeding 65 dB. (this threshold may be shifted to 70 dB on a case-by-case basis when 6 specific conditions are satisfied as described at Section 51.105(a)). Noise levels are acceptable. Document the noise calculation in the ERR

b. Purchase or Resale of Existing Building

Is the Day-Night average sound level above an acceptable level (based on noise calculation or your analysis of the site using maps or a site visit)?

☐ Yes. Consider environmental noise as a marketability factor when considering the amount of insurance or assistance that will be provided to the project? Noise exposure by itself will not result in the denial of HUD support for the resale and purchase of otherwise acceptable existing buildings. Record your determination in the ERR.

☐ No. Record your determination in the ERR

c. Modernization

Is the Day-Night average sound level above an acceptable level (based on noise calculation or your analysis of the site using maps or a site visit)?

☐ Yes. Encourage noise attenuation features in alterations. Record your determination in the ERR. Identify how you are encouraging noise attenuation

☐ No. Record your determination in the ERR

d. Major or Substantial Rehabilitation

Is the Day-Night average sound level:

☐ Above 75 dB. HUD or the RE shall actively seek to have project sponsors incorporate noise attenuation features, given the extent and nature of the rehabilitation being undertaken and the level of exterior noise exposure and will strongly encourage conversion of the noise exposed sites to land uses compatible with the high noise levels. Document the ERR include the noise calculation and efforts taken to encourage noise attenuation .

☐ Above 65 dB but not exceeding 75 dB. HUD or the RE shall actively seek to have project sponsors incorporate noise attenuation features, given the extent and nature of the rehabilitation being undertaken and the level of exterior noise exposure Document ERR include the noise caluclation and efforts taken to encourage noise attenuation.

☐ Not exceeding 65 dB. (this threshold may be shifted to 70 dB on a case-by-case basis when 6 specific conditions are satisfied as described at Section 51.105(a)). Noise levels are acceptable. Document the ERR with the noise calculation.

DISCLAIMER: This document is intended as a tool to help Region X HUD grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement, refer to the 24CFR Part 51 Subpart B and the Noise Guidebook for specific guidance.

Noise Abatement and Control

Checklist for HUD or Responsible Entity

Measurements for Noise Analysis

This NEPA noise study considered the following information drawn from HUD Noise Calculator, Mason County GIS, Google Maps, and recent traffic studies.

All road gradients are 0% and there are no identified impulse sounds. Distances to intersections with stop signs are beyond NEPA applicable distance of 600 feet. HUD's Noise Manual 15% fraction for nighttime fraction was applied.

City of Shelton does not have traffic counts for subject roads 13th, Wallace Kneeland, or Shelton Springs. Washington Department of Transportation measures traffic count for Highway 101 which is beyond NEPA applicable distance (1,000 feet), has dissimilar traffic, and is not applicable to the project site. Similarly, Sanderson civil airfield is 1.25 miles from the project site. Although within the NEPA applicable distance, the project site is outside this airfield's 60dB noise contour and aircraft noise is not applicable to the project site.

Two recent traffic studies included traffic counts for roads adjacent to the project. One study identified limited truck traffic which was applied to that traffic count. The remaining study did not differentiate truck/auto traffic so only auto counts were used. These studies did not identify an Average Daily Traffic (ADT) count or suggest some method of determining ADT. These studies counted actual traffic but only for peak traffic hours. This NEPA noise study assumes peak hour traffic is continuous throughout the day. This approach overstates traffic volume resulting in a combined traffic noise level likely far higher than actual.

- 1.25 miles to Sanderson Field civil airfield
- 86 feet to 13th St (30 MPH). 2-hour peak traffic count of 1,039 at Holly Rd. 12,468 calculated ADT including 1.5% heavy trucks per April 2019 Shelton Village Traffic Analysis.
- 675 feet to Wallace Kneeland Blvd (35 MPH). 1-hour peak traffic count of 301 at Shelton Springs. 7,224 calculated ADT per May 2019 YMCA Traffic Impact Analysis.
- 680 feet to Shelton Springs Rd (30 MPH). 1-hour peak traffic count of 473 at 13th. 11,352 calculated ADT per May 2019 YMCA Traffic Impact Analysis

Despite overstated ADT, HUD's Noise Calculator determined the Combined DNL is 64 dB. This noise level is within HUD's acceptable noise standard for new residential uses.

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Shelton Veterans Village 2471 N 13th, Shelton, WA
Record Date	12/15/2020
User's Name	Paul Trautman

Road # 1 Name:	**13th St**

Road #1

Vehicle Type	Cars ☑	Medium Trucks ☐	Heavy Trucks ☑
Effective Distance	86		86
Distance to Stop Sign			
Average Speed	30		30
Average Daily Trips (ADT)	12281		187
Night Fraction of ADT	15		15
Road Gradient (%)			0
Vehicle DNL	60	0	62
Calculate Road #1 DNL	64	Reset	

Road # 2 Name: **Wallace Kneeland Blvd**

Road #2

Vehicle Type	Cars ☑	Medium Trucks ☐	Heavy Trucks ☐
Effective Distance	675		
Distance to Stop Sign			
Average Speed	35		
Average Daily Trips (ADT)	7224		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	45	0	0
Calculate Road #2 DNL	45	Reset	

Road # 3 Name:	Shelton Springs Rd

Road #3

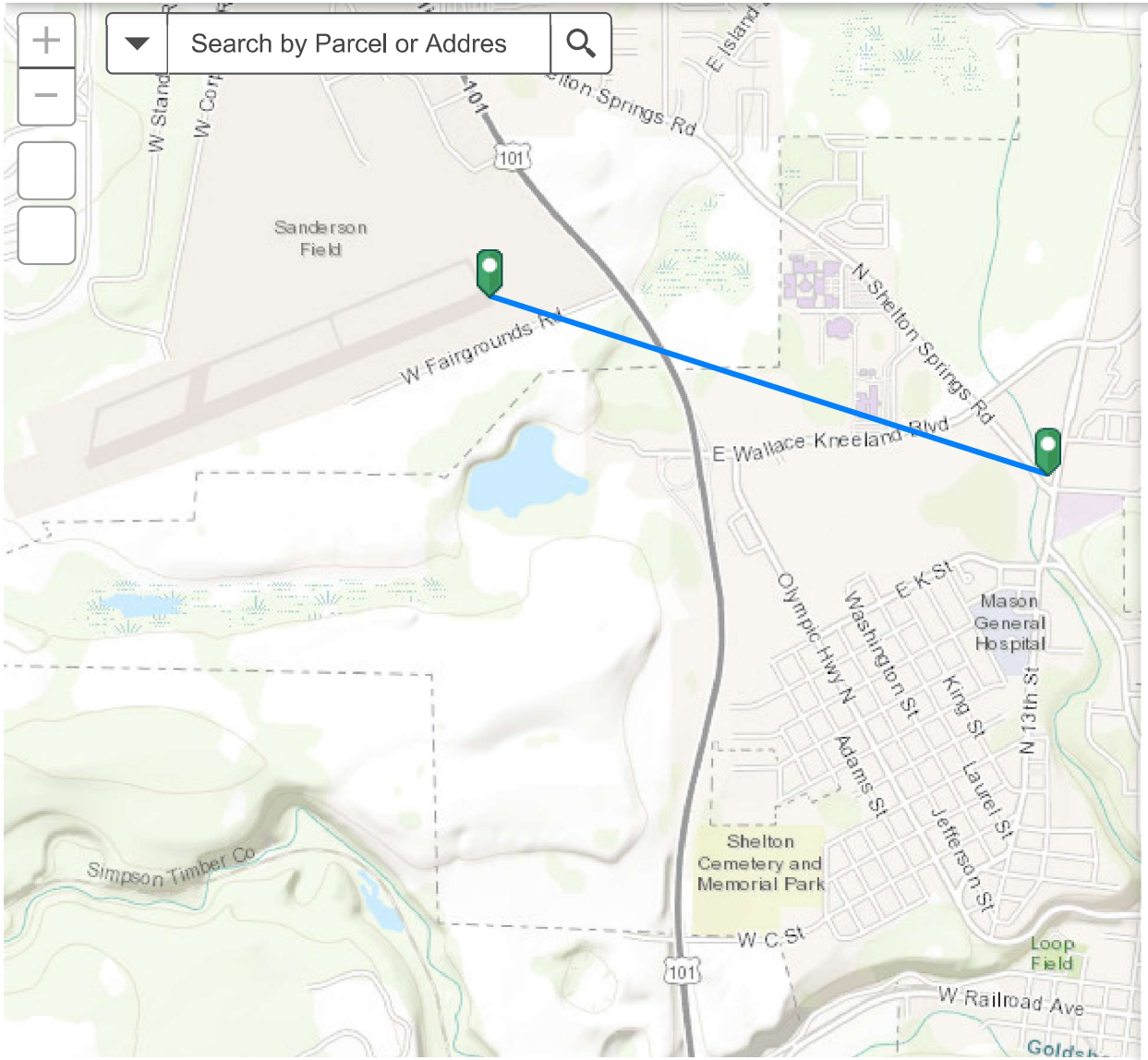
Vehicle Type	Cars ☑	Medium Trucks ☐	Heavy Trucks ☐
Effective Distance	680		
Distance to Stop Sign			
Average Speed	30		
Average Daily Trips (ADT)	11352		
Night Fraction of ADT	15		
Road Gradient (%)			
Vehicle DNL	46	0	0
Calculate Road #3 DNL	46	Reset	

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○Yes ◉No
Combined DNL for all Road and Rail sources	**64**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Mason County WA GIS

Mason County Homepage



Measurement

| Feet

Measurement Result

6,765.5 Feet

Clear

Project site is within 15 miles of Sanderson civil air field. However, project site is outside the Sanderson Field 60dB noise contour and does not impact onsite noise analysis per NEPA.

Press CTRL to enable snapping

LEGEND

- ZONING BOUNDARY
- AIRPORT TRAFFIC PATTERN (TYP.)
- RUNWAY PROTECTION ZONE
- APPROACH
- PROPERTY LINE
- CITY LIMITS
- URBAN GROWTH BOUNDARY
- 2027 CONTOURS DAY-NIGHT LEVEL (DNL)

CITY OF SHELTON ZONING

AI *	AIRPORT INDUSTRIAL
MU *	LOW INTENSITY MIXED USE
NR *	NEIGHBORHOOD RESIDENTIAL
I *	INDUSTRIAL
C/I *	COMMERCIAL/INDUSTRIAL
C/R-G	COMMERCIAL/RESIDENTIAL GOOSE LAKE
M/E	MEDICAL/EDUCATIONAL

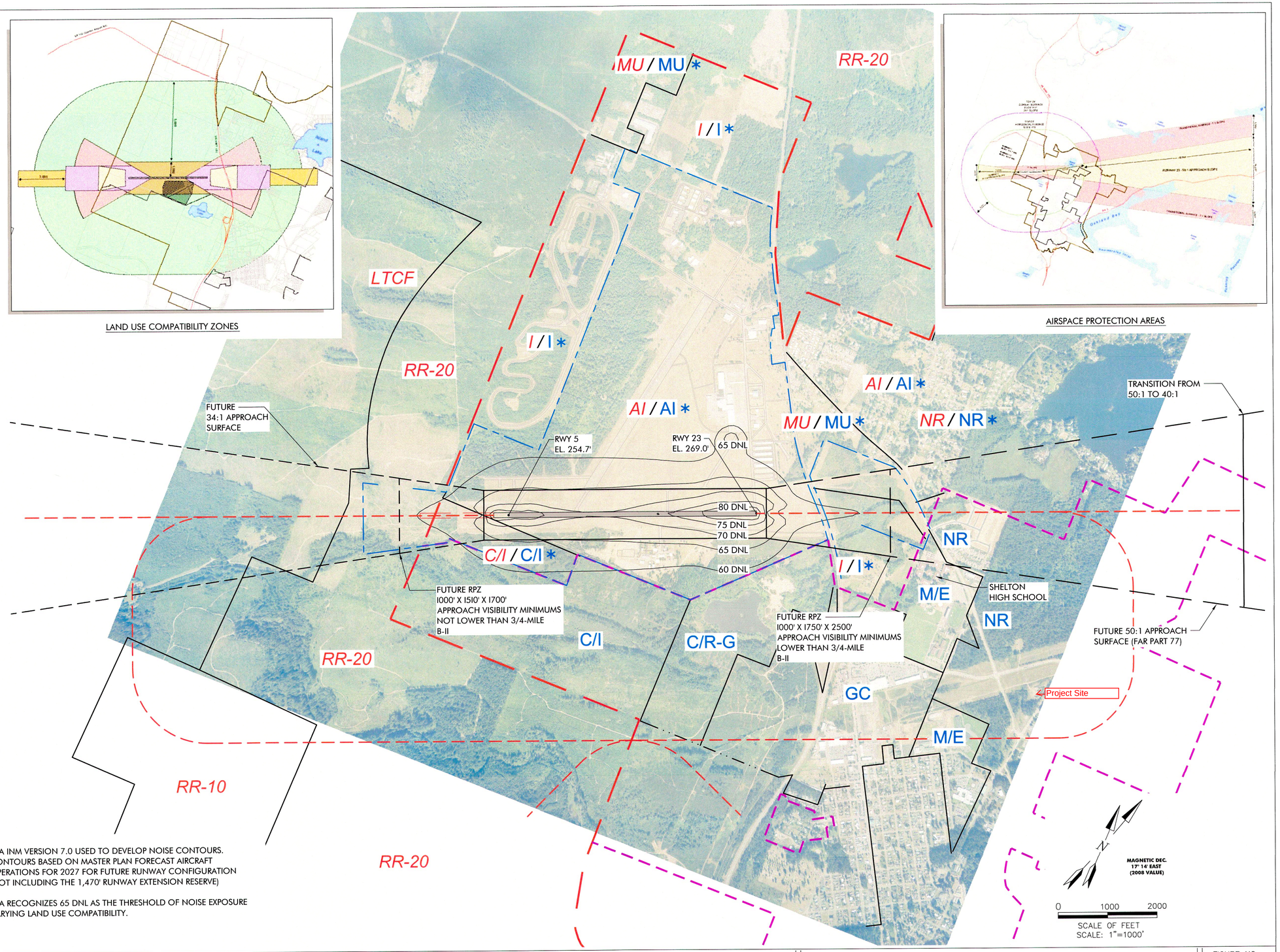
* MASON COUNTY/CITY OF SHELTON PRE-ANNEXATION ZONING WITHIN URBAN GROWTH AREA

MASON COUNTY ZONING/ LAND USE DESIGNATIONS

LTCF	LONG TERM COMMERCIAL FOREST
RR	RURAL RESIDENTIAL 10, 20 ACRES
RR	RURAL RESIDENTIAL 10, 20 ACRES
AI *	AIRPORT INDUSTRIAL
MU *	LOW INTENSITY MIXED USE
NR *	NEIGHBORHOOD RESIDENTIAL
I *	INDUSTRIAL
C/I *	COMMERCIAL/INDUSTRIAL

LAND USE COMPATIBILITY ZONES

AIRSPACE PROTECTION AREAS



NOTES:

1. CITY OF SHELTON 2007 ANNEXATION PROPOSAL INCLUDES SANDERSON FIELD AND ADJACENT AREAS BEYOND CURRENT CITY LIMITS.
2. SANDERSON FIELD AIRPORT OVERLAY ZONING HAS BEEN ADOPTED. BY MASON COUNTY AND THE CITY OF SHELTON.
3. SANDERSON FIELD IS AN ESSENTIAL PUBLIC FACILITY (EPF) IN ACCORDANCE WITH RCW 36.70A.
4. FAA INM VERSION 7.0 USED TO DEVELOP NOISE CONTOURS. CONTOURS BASED ON MASTER PLAN FORECAST AIRCRAFT OPERATIONS FOR 2027 FOR FUTURE RUNWAY CONFIGURATION (NOT INCLUDING THE 1,470' RUNWAY EXTENSION RESERVE)
5. FAA RECOGNIZES 65 DNL AS THE THRESHOLD OF NOISE EXPOSURE VARYING LAND USE COMPATIBILITY.

"THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-53-0069-09) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING. 0" ——— 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVAL DATE: _____

_____
MANAGER, SEATTLE ADO

PORT OF SHELTON APPROVAL

APPROVAL DATE: 2-5-2013

_____
SIGNATURE

CENTURY WEST ENGINEERING CORPORATION
5331 S.W. Macadam Ave, Suite 207
Portland, Oregon 97239
503-419-2130 phone ♦ 503-639-2710 fax
www.centurywest.com

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:
DM	JLS	SLK	AS SHOWN
DATE: APRIL 2013		PROJECT NO: 41411001.01	

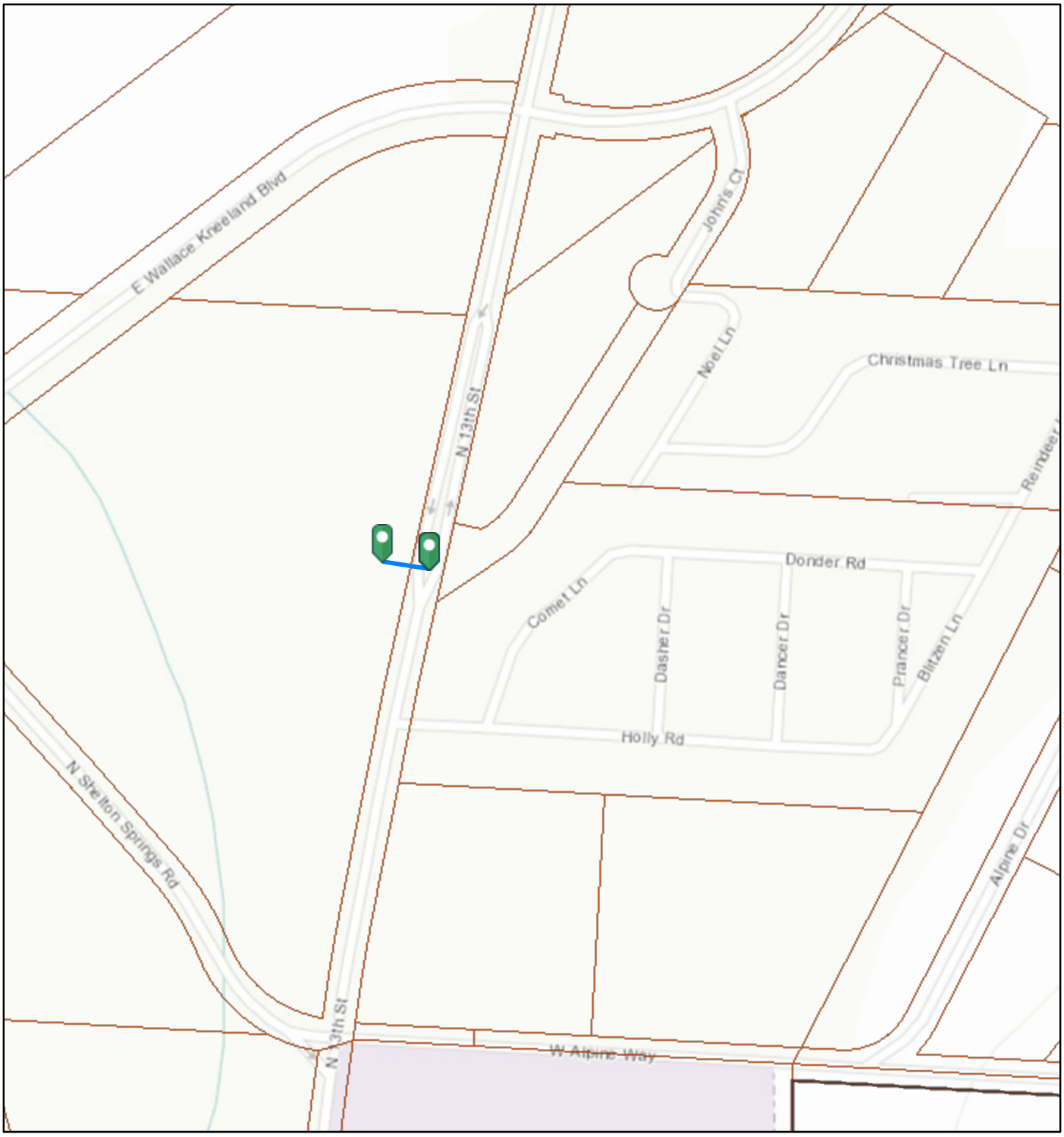
SANDERSON FIELD

AIRPORT LAND USE PLAN WITH 2027 NOISE CONTOURS

FIGURE NO. .

SHEET NO. 10 OF 11

Mason County WA GIS Web Map



12/15/2020, 9:52:48 AM

1:3,071

0 0.03 0.05 0.1 mi

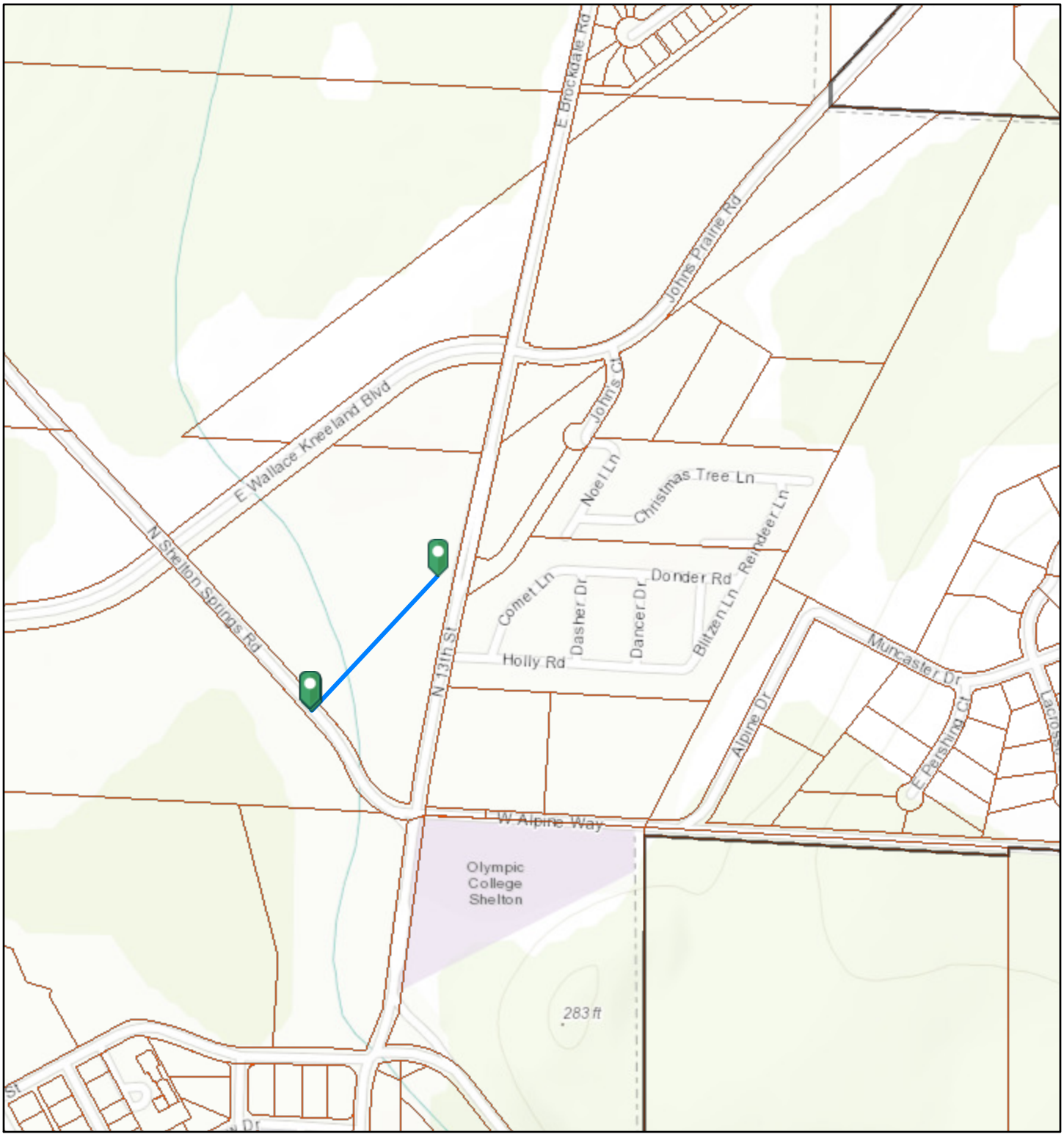
0 0.04 0.08 0.16 km

County Boundary

Tax Parcels (Zoom in to 1:30,000)

86 feet to 13th St

Mason County WA GIS Web Map



12/15/2020, 9:40:17 AM

1:6,141

0 0.05 0.1 0.2 mi

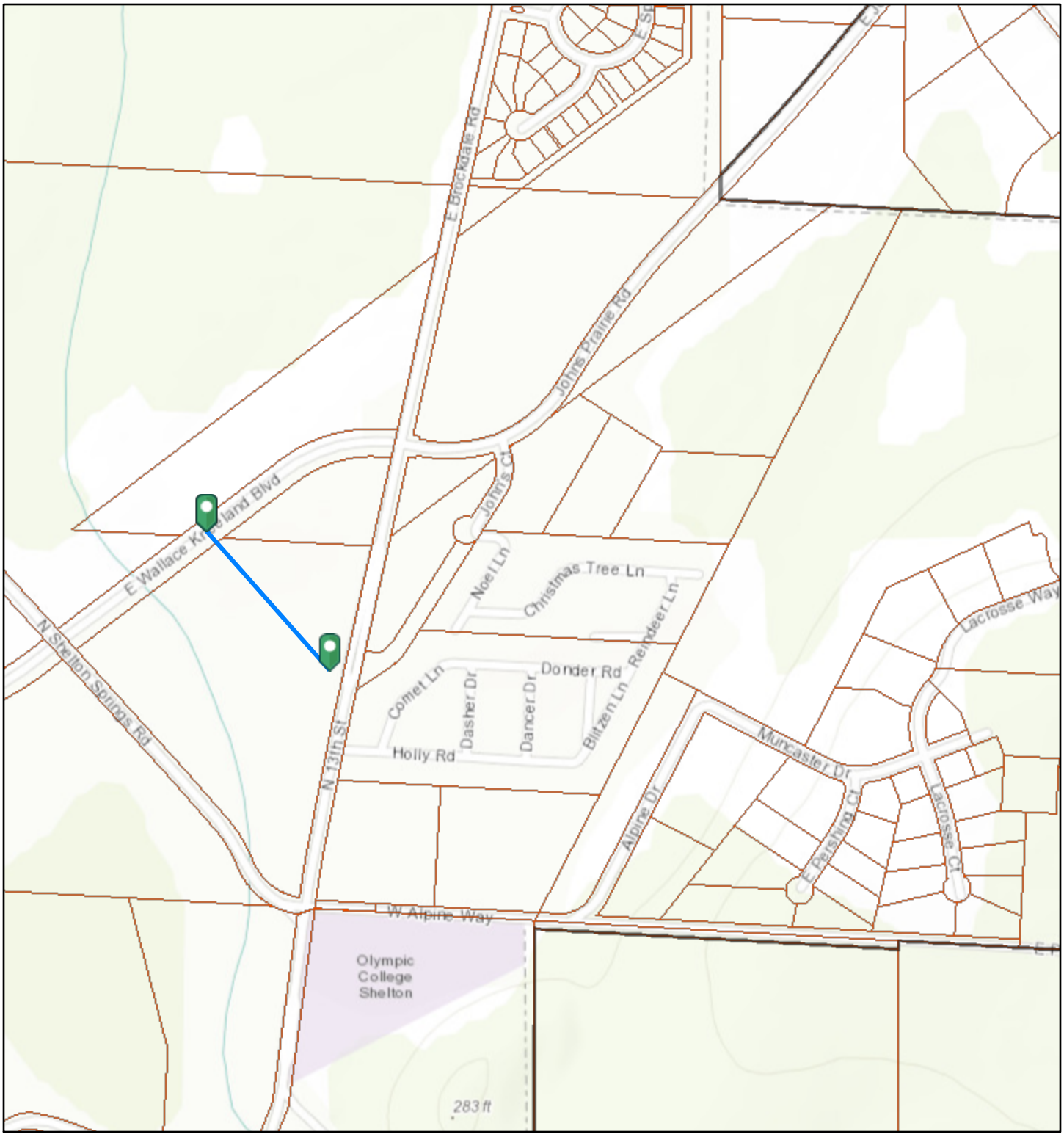
0 0.07 0.15 0.3 km

County Boundary

Tax Parcels (Zoom in to 1:30,000)

680 Feet to Shelton Springs Rd

Mason County WA GIS Web Map



12/15/2020, 9:44:00 AM

1:6,141

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

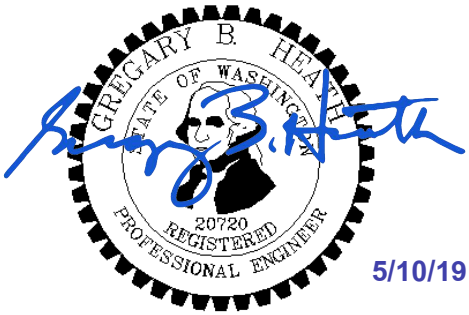
County Boundary

Tax Parcels (Zoom in to 1:30,000)

675 feet to Wallace Kneeland Blvd

SHELTON VETERANS VILLAGE
TRAFFIC IMPACT ANALYSIS

City of Shelton, WA



5/10/19

Prepared for: Ms. Jaycie Osterberg
Quixote Communities
3550 Mottman Road SW
Olympia, WA 98512

May 2019

3. EXISTING CONDITIONS

3.1 Existing Street System

Access to the property would be served by way of *N 13th Street,* a north-south, multi-lane city-designated minor arterial bordering the east side of the subject site. The road cross section in the vicinity consists of one travel lane in the southbound direction and two travel lanes in the northbound direction. Turn lanes are provided at major intersections. A 10-foot wide vegetative median intermittently divides direction of travel along the corridor. The posted speed limit in the vicinity is 30 mph with approximate 10-foot wide travel lanes. Attached curb and sidewalk are available along the east side of the roadway; a detached 8-foot wide paved walking path exists parallels the west side.

3.2 Existing PM Peak Hour Volumes

Field data utilized for this study was collected in April of 2019. A traffic count was taken at the intersection of N 13th Street/Holly Road in order to determine baseline vehicular volumes across the project frontage. Data collection took place between the PM peak period of 4:00-6:00 PM which generally translates to highest overall roadway volumes in a given 24-hour period. The peak hour is then determined from the field count and is used for capacity analysis. Peak volumes captured are illustrated in Figure 3. The full two-hour count has been attached to the appendix for reference.

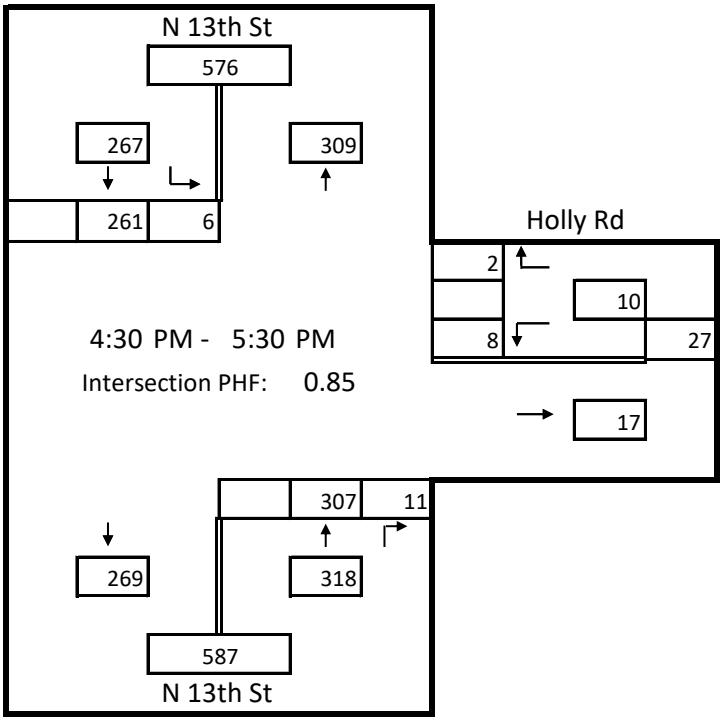
3.3 Non-motorist Infrastructure

N 13th St offers complete sidewalk networks with marked pedestrian crossings at nearby intersections. No significant non-motorist activity was observed during field counts. Site development would include connection to the existing sidewalk network. Project residents would have safe mobility to/from the site to connect to N 13th St for transit and commercial amenities.

Heath & Associates, Inc.
2214 Tacoma Road
Puyallup, WA 98371

Project Name: **Shelton Veteran's Village**
Intersection: N 13th St & Holly Rd
Jurisdiction: City of Shelton
Date of Count: 4/9/2019
Project Number: 4275

Time Period	Soutbound N 13th St				Westbound Holly Rd				Northbound N 13th St				Eastbound				
	HV	R	T	L	HV	R	T	L	HV	R	T	L	HV	R	T	L	Total
4:00 PM	0	0	47	1	0	1	0	2	3	6	79	0	0	0	0	0	136
4:15 PM	0	0	41	0	0	1	0	0	1	4	66	0	0	0	0	0	112
4:30 PM	0	0	83	4	0	1	0	2	2	2	82	0	0	0	0	0	174
4:45 PM	0	0	66	2	0	1	0	0	1	2	76	0	0	0	0	0	147
5:00 PM	0	0	63	0	0	0	0	3	1	5	76	0	0	0	0	0	147
5:15 PM	0	0	49	0	0	0	0	3	0	2	73	0	0	0	0	0	127
5:30 PM	0	0	49	0	0	1	0	2	0	1	54	0	0	0	0	0	107
5:45 PM	0	0	36	0	0	0	0	1	1	2	59	0	0	0	0	0	98
Total	0	0	434	7	0	5	0	13	9	24	565	0	0	0	0	0	1,048
Peak Hour	**4:30 PM to 5:30 PM**																Total
Peak Total	0	0	261	6	0	2	0	8	4	11	307	0	0	0	0	0	595
Heavy Veh.	0.0%				0.0%				1.5%				0.0%				
PHF	0.77				0.83				0.95				0.00				



Traffic Impact Analysis

Shelton, Washington
YMCA

May 2019

SCJ ALLIANCE
CONSULTING SERVICES

SCJ ALLIANCE
ENGINEERING AND PLANNING SERVICES

Traffic Volume Calculation Worksheet

Shelton YMCA

PM Peak Hour Volumes

Growth Rate: 3.00%

Intersection	Movement		Existing Volume Elements (NOTE)					Pipeline Developments				Baseline Elements		Project Volume Elements				
			Existing 2017 Volumes	Existing 2018 School	Existing 2019 Closure	Count Adjustment	**Existing 2019 Volumes**	Proposed School Trips	Mason General Hospital	Proposed Housing Trips	Total Development Volumes	Background 2020 Growth	**Baseline 2020 Volumes**	Phase 1 Site-Generated Trips	**With Phase 1 2020 Volumes**	Background 2025 Growth	Total Site-Generated Trips	**With Project 2025 Volumes**
1		L		*61*	116	-48	**68**	13	0	7	20	2	**90**	8	**98**	10	16	**116**
Wallace Kneeland Blvd	EB	T		*356*	491	-37	**454**	0	0	0	0	14	**468**	0	**468**	68	0	**536**
Shelton Springs Road		R		*155*	85	50	**135**	0	5	0	5	4	**144**	0	**144**	20	0	**164**
		L		*2*	2	0	**2**	0	0	0	0	0	**2**	0	**2**	0	0	**2**
TMC Date: 05/15/2019	WB	T		*327*	356	0	**356**	0	0	0	0	11	**367**	0	**367**	53	0	**420**
		R		*26*	49	0	**49**	6	0	3	9	1	**59**	7	**66**	7	13	**80**
		L		*127*	66	82	**148**	0	17	0	17	4	**169**	0	**169**	22	0	**192**
	NB	T		*102*	70	48	**118**	29	13	15	57	4	**179**	10	**189**	18	17	**213**
		R		*2*	0	2	**2**	0	0	0	0	0	**2**	0	**2**	0	0	**2**
		L		*57*	77	0	**77**	8	0	2	10	2	**89**	8	**97**	12	15	**116**
	SB	T		*179*	84	52	**136**	34	6	9	49	4	**189**	10	**199**	20	20	**229**
		R		*126*	162	-52	**110**	15	0	4	19	3	**132**	9	**141**	17	16	**165**
			0		1,558		**1,655**				186		**1,891**		**1,943**			**2,236**
2		L	5		*7*	0	**5**	0	0	0	0	0	**5**	0	**5**	1	0	**6**
	EB	T	10		*7*	1	**11**	0	0	0	0	0	**11**	0	**11**	2	0	**13**
		R	242		*149*	15	**257**	34	11	9	54	8	**318**	10	**328**	38	20	**377**
Shelton Springs Road		L	19		*18*	1	**20**	0	0	0	0	1	**21**	0	**21**	3	0	**24**
N 13th Street	WB	T	18		*19*	1	**19**	0	0	0	0	1	**20**	0	**20**	3	0	**23**
		R	17		*9*	1	**18**	0	0	0	0	1	**19**	0	**19**	3	0	**21**
		L	226		*122*	14	**240**	29	30	15	74	7	**321**	10	**331**	36	17	**374**
TMC Date: 11/01/2017	NB	T	268		*247*	16	**284**	0	30	0	30	9	**323**	0	**323**	43	0	**365**
		R	20		*20*	1	**21**	0	0	0	0	1	**22**	0	**22**	3	0	**25**
Peak Hour: 4:15 - 5:15		L	11		*9*	1	**12**	0	0	0	0	0	**12**	0	**12**	2	0	**14**
PHF: 0.96	SB	T	269		*211*	16	**285**	0	12	0	12	9	**306**	0	**306**	43	0	**348**
		R	9		*6*	1	**10**	0	0	0	0	0	**10**	0	**10**	1	0	**11**
			1,114				**1,181**				170	35	**1,386**		**1,406**	177		**1,600**
3		L	80		*0*	5	**85**	3	30	1	34	3	**121**	1	**122**	13	1	**135**
Northcliff Rd	EB	T	39		*0*	2	**41**	0	7	0	7	1	**50**	0	**50**	6	0	**56**
N 13th Street		R	9		*0*	1	**10**	0	0	0	0	0	**10**	0	**10**	1	0	**11**
		L	12		*13*	1	**13**	0	1	0	1	0	**14**	0	**14**	2	0	**16**
	WB	T	50		*17*	3	**53**	0	5	0	5	2	**60**	0	**60**	8	0	**68**
		R	241		*24*	14	**255**	17	0	9	26	8	**289**	6	**295**	38	11	**338**
		L	43		*51*	3	**46**	0	0	0	0	1	**47**	0	**47**	7	0	**54**
Outside NEPA Area	NB	T	183		*226*	11	**194**	9	30	5	44	6	**244**	3	**247**	29	5	**278**
		R	43		*16*	3	**46**	0	8	0	8	1	**55**	0	**55**	7	0	**62**
		L	321		*61*	19	**340**	21	0	5	26	10	**376**	6	**382**	51	12	**440**
	SB	T	127		*219*	8	**135**	10	10	3	23	4	**162**	3	**165**	20	6	**188**
		R	86		*134*	5	**91**	3	13	1	17	3	**111**	1	**112**	14	2	**127**
			1,234				**1,308**				191	39	**1,538**		**1,558**	196		**1,771**

Sole Source Aquifers

HUD Region X

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Protect drinking water systems which are the sole or principal drinking water source for an area and which, if contaminated, would create a significant hazard to public health.	Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300 et seq., and 21 U.S.C. 349)	40 CFR 149.2

1. **Is the project located on a sole source aquifer (SSA) review area which includes the aquifer and streamflow source areas? (Note: There are currently no sole source aquifers in Alaska.)**

☐ Maintain, in your ERR, a copy of the latest SSA review area map, marked with your project location.
https://www.epa.gov/dwssa
Click "Interactive map of SSA's"
Make sure you consider streamflow source areas.

☒ No: STOP here. The Sole Source Aquifer authority does not apply. Record your determination.
☐ Yes: PROCEED to #**2**

2. **Is there anything connected to your project that could have an adverse impact on the aquifer and streamflow source area such as injection of storm into the aquifer or deep digging on sites with toxins in the soil or onsite monitoring wells? Examples include dry wells, injection wells, digging in contaminated soils to or close to aquifer depth (note depth to aquifer may vary depending on where your project is located since aquifer depths vary over the landscape), installing a fuel storage tank underground without safeguards or placing a fuel storage tank aboveground without secondary containment.**

Describe:

☐ Yes: Please proceed directly to consultation with EPA, described in Step 10 or if the project is located in Idaho, proceed to Step 9.
☐ No: Document your ERR and PROCEED to **#3**

3. **Does the project consist of an individual action (including acquisition, disposition, new construction and rehabilitation) on a one-to-four unit residential building that meets all applicable local and state groundwater regulations?**

☐ Yes: STOP here. The project is not likely to affect Sole Source Aquifer quality. Record your determination on the Statutory Worksheet.
☐ No: PROCEED to **#4**

4. **Does the project consist of acquisition, disposition or rehabilitation of a multifamily (5 or more dwelling units) residential building, commercial building, or public facility that does not increase size or capacity and meets all applicable local and state groundwater regulations?**

☐ Yes: STOP here. The project is not likely to affect Sole Source Aquifer quality. Record your determination on the Statutory Worksheet.
☐ No: PROCEED to **#5**

5. **Does the project consist of new construction or rehabilitation that increases size or capacity of a multifamily building, commercial building or public facility that meets all applicable local/state ground-water regulations AND**
   a. **Project is connected to public water OR**

b. **Project is connected to private well water and the appropriate state and local health department or district is notified; water is tested for contaminants such as bacteria and nitrate; all applicable pollution prevention techniques are used to protect the private well from contamination.**
c. **Project is connected to the sanitary sewer OR**
d. **Project uses an onsite sewage disposal system that treats 2000 gallons per day or less.**
e. **Project is connected to public storm drainage system OR**
f. **Project infiltrates some or all of its storm water onsite through rain gardens, bioswales or other low impact development methods EXCEPT shallow injection wells such as dry wells, or french drains.**

Describe:

☐ Yes: STOP here. The project is not likely to affect Sole Source Aquifer quality. Record your determination on the Statutory Worksheet and document how your project will handle water, storm water and sewage.
☐ No: PROCEED to **#6**

6. **Does the project consist of repairing or expanding streets, or installing sidewalks, curb cuts, biking trails, hiking trails, parks or playgrounds and meets all applicable local and state groundwater regulations?**

☐ Yes: STOP here. The project is not likely to affect Sole Source Aquifer quality. Record your determination on the Statutory Worksheet.
☐ No: PROCEED to **#7**

7. **Does the project consist of drinking water activities such as drinking water lines, drinking water storage reservoirs, drinking water treatment systems, drilling of a new well, or a pump system and does not involve digging through a hazardous waste site or a site that is tracking contamination through monitoring wells?**

Describe:

☐ Yes: STOP here. The project is not likely to affect Sole Source Aquifer quality. Record your determination on the Statutory Worksheet.
☐ No: PROCEED to **#8**

8. **Does the project consist of wastewater activities such as (but not limited to) replacement and/or rehab of collection lines, new transmission lines, lift stations, new wastewater lagoons or repairing an existing septic system and does not involve digging through a hazardous waste site or a site that is tracking contamination through monitoring wells and <u>does not</u> add a new source of contamination to the groundwater (examples that may add a new source of contamination would include a new reuse/land application system or expansion of existing reuse/land application system, or a new large capacity septic system/soil absorption system)?**

Describe:

☐ Yes: STOP here. The project is not likely to affect Sole Source Aquifer quality. Record your determination on the Statutory Worksheet.
☐ No: PROCEED to **#9**

9. **Is the project located in Idaho and does it fit within the Memorandum of Understanding between HUD/Idaho Division of Community Development/Idaho Housing and Finance Association and EPA?**

☐ Yes: Follow the process laid out in the 2000 MOU, including contacting appropriate regulators, obtaining required permits and maintaining documentation as prescribed in the MOU:
Record your determination on the Statutory Worksheet.

☐ No: PROCEED to **#10**

10. Submit your project to EPA for review.

Include the following information:

1. Location of Project and name of Sole Source Aquifer.
2. Project description and federal funding source.
3. Is there any increase of impervious surface? If so, what is the area?
4. Describe how storm water is currently treated on the site.
5. How will storm water be treated on this site during construction and after the project is complete?
6. Are there any underground storage tanks present or to be installed? Include details of such tanks.
7. Will there be any liquid or solid waste generated? If so how will it be disposed of?
8. What is the depth of excavation?
9. Are there any wells in the area that may provide direct routes for contaminates to access the aquifer and how close are they to the project?
10. Are there any hazardous waste sites in the project area, especially if the waste site has an underground plume with monitoring wells that may be disturbed? Include details.
11. Are there any deep pilings that may provide access to the aquifer?
12. Are Best Management Practices planned to address any possible risks or concerns?
13. Is there any other information that could be helpful in determining if this project may have an affect on the aquifer?
14. Does this Project include any improvements that may be beneficial to the aquifer, such as improvements to the wastewater treatment plan?

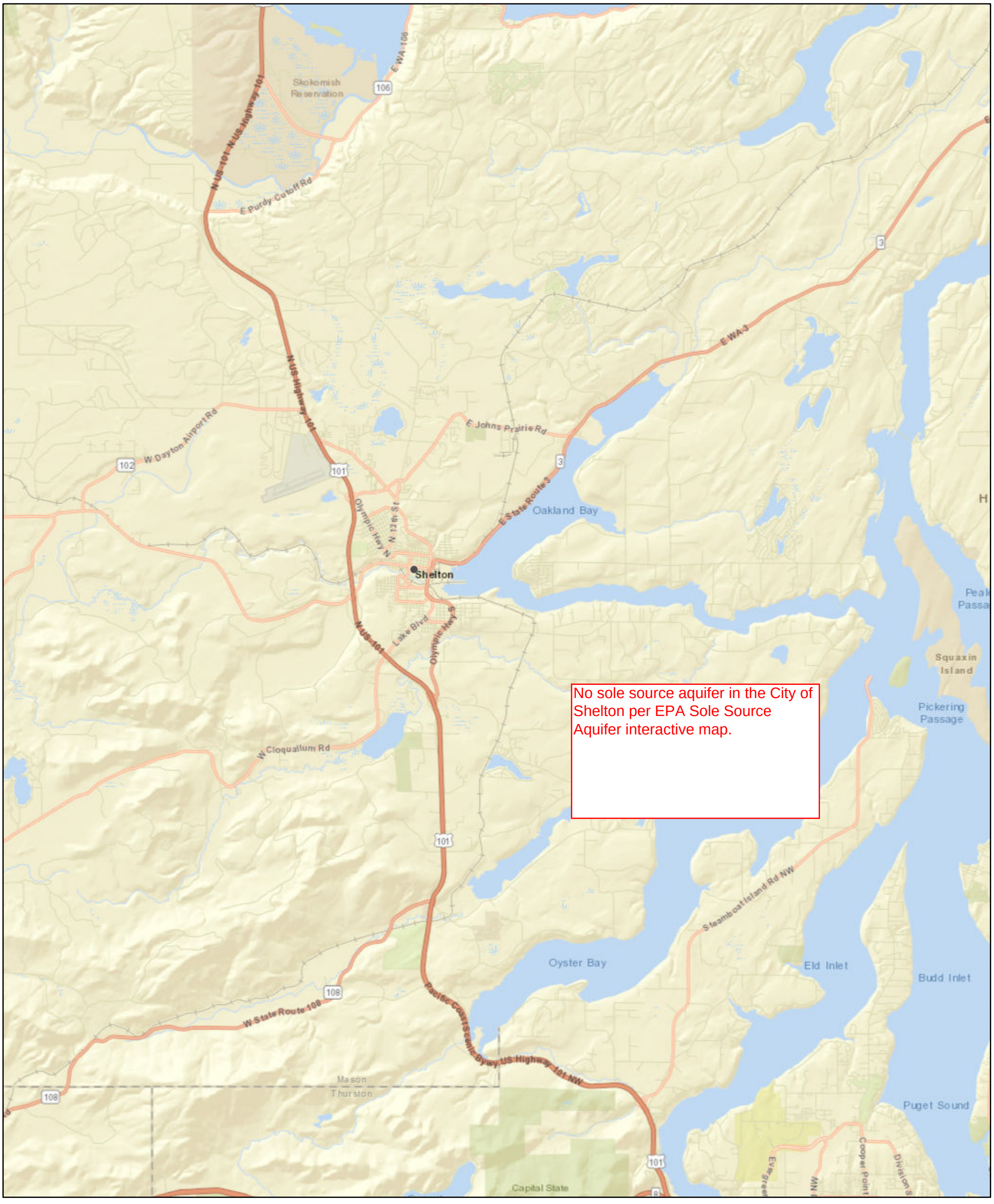
Submit the information to Susan Eastman at eastman.susan@epa.gov , phone number (206) 553-6249, for EPA approval of the project. Please note that EPA may request additional information if impacts to the aquifer are questionable after the information is submitted for review.

☐ EPA approves project: Stop here. The project is not likely to affect Sole Source Aquifer quality. Maintain copies of all of the documents you have used to make your determination and your correspondence with EPA.

☐ EPA objects to project: Continue working with EPA to mitigate issues. You may need to hire a technical consultant or request EPA to conduct an independent review of the proposed project for impacts to ground water quality. If EPA determines that the project continues to pose a significant contaminant hazard to public health, federal financial assistance must be denied.

DISCLAIMER: This document is intended as a tool to help Region X HUD grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement, and the Sole Source Aquifer Legislation and Regulations take precedence over any information found in this document.

Sole Source Aquifer Map



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1:144,448

0 1 2 4 mi

0 1.75 3.5 7 km

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

U.S. Environmental Protection Agency

Protection of Wetlands

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Avoid the adverse impacts associated with the destruction and modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.	Executive Order 11990, May 24 1977	24 CFR Part 55

1. **Does the project include new construction, rehabilitation that expands the footprint of the building, or ground disturbance?**

☐ No: STOP here. The Protection of Wetlands executive order does not apply. Record your determination that the project is not in a wetland.

☒ Yes: Proceed to #2

2. **Is there a wetland on your project site?**

☐ Use both national and local resources to make this determination. A good first step is to check the National Wetlands Inventory's digital wetlands mapper tool: http://www.fws.gov/wetlands/Data/Mapper.html If site conditions or other documents indicate there may be a wetland, next check with city, county or tribal experts for local wetlands inventories. If none exist, the presence of hydric soils can indicate a wetland. If you suspect a wetland due to soil type or site conditions, you should commission a professional site survey to delineate the wetland and its boundaries.

HUD defines a wetland as those areas that are inundated with surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. The definition includes wetlands separated from their natural supply of water and constructed wetlands. **Please note that the US Army Corps of Engineers has a more restrictive definition of wetlands. A determination by the US Army Corps that there is no jurisdictional wetland on site is not sufficient documentation for HUD's purposes.**

Maintain, in your ERR, all documents you have collected to make your wetlands determination.

☒ No: STOP here. The Protection of Wetlands executive order does not apply. Record your determination that the project is not in a wetland.

☐ Yes: Proceed to #3.

3. **Does your project involve new construction in the wetland? New construction includes draining, dredging, channelizing, filling, diking, impounding, and related activities.**

☐ No: STOP here. The Protection of Wetlands executive order does not apply. Record your determination that the project does not involve new construction in a wetland.

☐ Yes: Proceed to #4.

4. **Does your project meet one of the categories of proposed action for which the 8-step decision making process does not apply? (**Below are several exemptions that apply to wetlands—please see 24 CFR 55.12(b) and 55.12(c) for additional categories of proposed action)
   - The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands, including through acquisition of such floodplain and wetland property if:
     - The property is cleared of all existing structures and related improvements;

- The property is dedicated for permanent use for flood control, wetland protection, park land, or open space; and
- A permanent covenant or comparable restriction is placed on the property's continued use to preserve the floodplain or wetland from future development.

- A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain or wetland.
- Project site with an incidental portion situated in an adjacent floodplain, including the floodway or Coastal High Hazard Area, or wetland, but only if:
  - The proposed construction and landscaping activities (except for minor grubbing, clearing of debris, pruning, sodding, seeding, or other similar activities) do not occupy or modify the 100-year floodplain (or the 500-year floodplain for critical actions) or the wetland;
  - Appropriate provision is made for site drainage that would not have an adverse effect on the wetland; and
  - A permanent covenant or comparable restriction is placed on the property's continued use to preserve the floodplain or wetland.
- Special Projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

☐ Yes: Stop here. Record your determination that the project is exempt from floodplain management regulations per 24 CFR 55.12. Maintain copies of all of the documents you have used to make your determination.
☐ No: Proceed to step 5.

5. Does your project meet one of the categories of proposed action for which a limited 8-step process applies? (Below are categories that apply to wetlands, please see 24 CFR 55.12(a) for additional categories of proposed action)

- Actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing multifamily housing projects, nursing homes, assisted living facilities, board and care facilities, intermediate car facilities and one-to-four family properties in communities in the Regular Program of the NFIP and in good standing, units are not increased more than 20 percent, the action does not involve a conversion from nonresidential to residential land use, the action does not meet the thresholds for 'substantial improvement'[1] and the footprint of the structure and paved areas is not significantly increased.
- Actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing nonresidential buildings and structures in communities in the Regular Program of the NFIP and in good standing, the action does not meet the thresholds for 'substantial improvement'[1] and the footprint of the structure is not significantly increased.

☐ Yes: Complete the 5-step decision-making process for wetlands. You do not have to publish the notices in steps 2 or 7 or do an analysis of alternatives in Step 3. Analyze potential direct and indirect impacts (step 4); design or modify to minimize potential impacts (step 5); reevaluate the proposed action to determine if action is still practicable (step 6).

- If still practicable, document your analysis in the file and move forward.
- If not still practicable, either reject or modify project.

☐ No: Proceed to #6.

6. Are there practicable alternatives to impacting a wetland?

HUD strongly discourages use of funds for projects that do not meet an exemption in Part 55.12. Reject the Project Site or amend project so there is no destruction or modification of the wetland. If you decide to consider the project you must determine if there are alternatives by completing the 8-step decision-making process described in 24 CFR Section 55.20. The 8-step decision-making process requires two public notice and comment periods. Appropriate and practicable compensatory mitigation is recommended for unavoidable adverse impacts to more than one acre of wetland. The use of compensatory mitigation may not substitute for the requirement to avoid and minimize impacts to the maximum extent practicable. For further details about compensatory mitigation please see 24 CFR 55.20(e)(2) and 55.2(b)(2).

A completed Individual Section 404 permit can cover steps 1-5 in the 8-step process if the project is not in the 100 year flood plain (or 500 year floodplain for critical actions) and all wetlands adversely affected by the action are covered by the permit. (24 CFR 55.28)

☐ Yes: Reject or modify project.

☐ No: Document your analysis, including wetlands notices, in your Environmental Review Record.

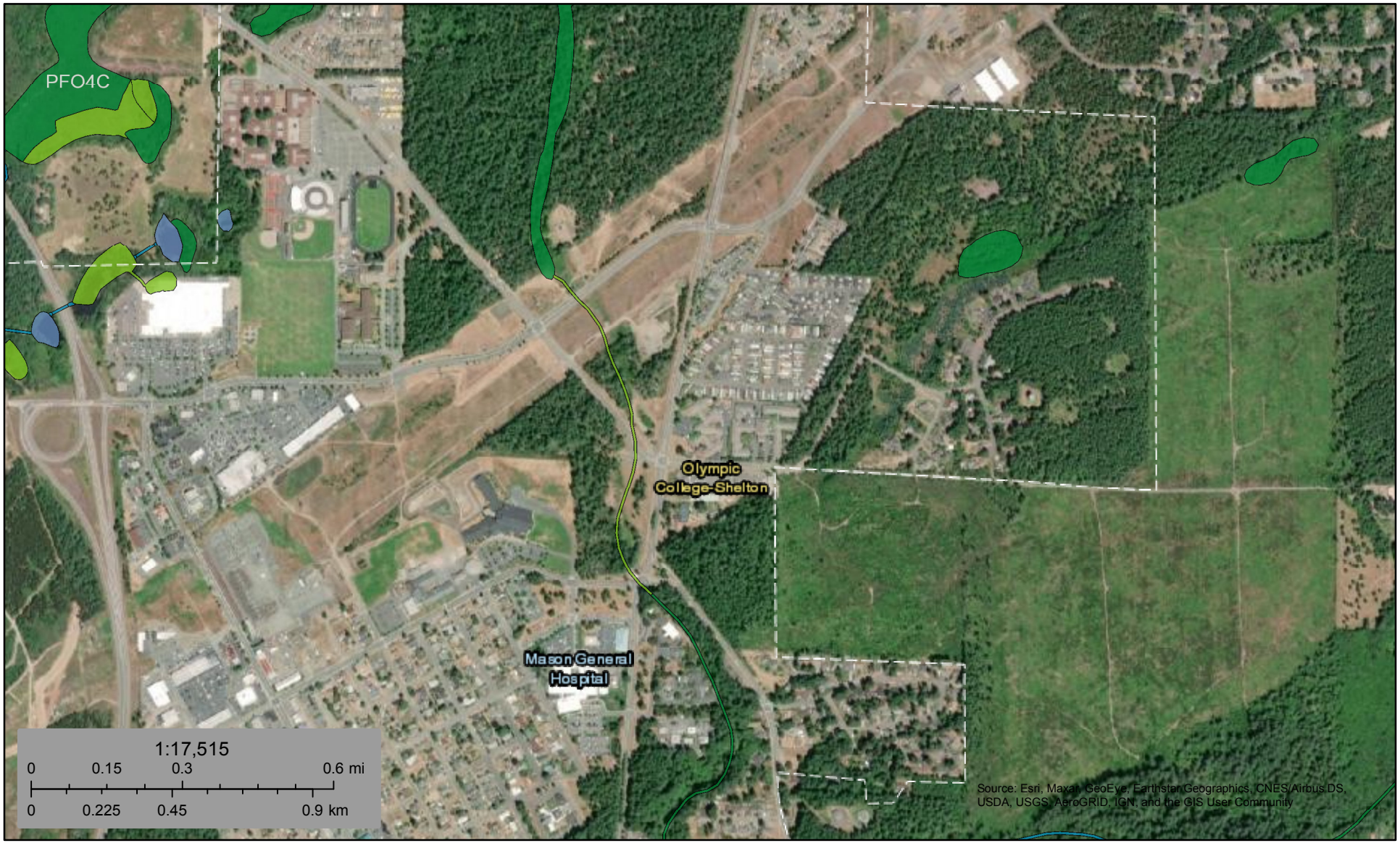
DISCLAIMER: This document is intended as a tool to help Region X grantees and HUD staff complete NEPA requirements. This document is subject to change. This is not a policy statement, and the Floodplain Executive Order and Regulations take precedence over any information found in this document.

[1] Substantial Improvement means any repair, reconstruction, modernization or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either before the improvement or repair started or if the structure has been damaged before the damage occurred OR any repair reconstruction etc. that results in an increase of more than 20% of dwelling units or peak number of customers and employees (24 CFR 55.2(b)(8)

U.S. Fish and Wildlife Service

National Wetlands Inventory

NWI map for 2471 N 13th, Shelton, WA



December 15, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Mason County WA GIS Web Map

12/15/2020, 3:43:58 PM

1:24,566

0 0.2 0.4 0.8 mi

0 0.33 0.65 1.3 km

County Boundary

NHD Water Bodies

Name

No Name

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Mason County WA GIS Web Map Application
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS | Richard Diaz |

Wild and Scenic Rivers

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Establishes a method for providing Federal protection for certain free-flowing and scenic rivers designated as components or potential components of the National Wild and Scenic Rivers System from the effects of construction.	The Wild and Scenic Rivers Act (Pub L. 90-542 as amended: 16 U.S.C. 1271-1287)	24 CFR 58.5(f) 24 CFR 50.4(f)

1. Is your project within proximity of a Wild and Scenic River?

You must consider **Designated Wild and Scenic Rivers** (http://www.rivers.gov/map.php); **Study Wild and Scenic Rivers** (http://www.rivers.gov/study.php) and rivers on the **Nationwide Rivers Inventory** (http://www.nps.gov/ncrc/programs/rtca/nri/)

☒No: STOP here. Project is in compliance with this section. Attach documentation used to make your determination, such as a map identifying the project site and its surrounding area or a list of rivers in your region.

☐Yes: the project is in proximity of a Designation Wild and Scenic River or Study Wild and Scenic River. PROCEED to #**2**

☐Yes: the project is in proximity of Nationwide Rivers Inventory (NRI) river. PROCEED to #**3**

2. Is your project a Water Resources project?

A Water Resources Project is a federally assisted project that could affect the free-flowing condition of a Wild and Scenic River. Examples include dams, water diversion projects, bridges, roadway construction, boat ramps, and activities that require a Section 404 permit from the Army Corps of Engineers. New construction that could increase storm water runoff should also be considered.

☐ No: STOP here. Project is in compliance with this section. Please attach all necessary supporting documentation.

☐ Yes: PROCEED to #**3**.

3. Could the project do any of the following:

- **Have a direct and adverse effect within Wild and Scenic River Boundaries**
- **Invade the area or unreasonably diminish the river outside the Wild and Scenic River Boundaries?**
- **Have an adverse effect on the natural, cultural, and/or recreational values of a NRI segment?**

For designated and study wild and scenic rivers, consult with the appropriate federal/state/local/tribal Managing Agency, pursuant to Section 7 of the Act, to determine if the proposed project may have an adverse effect. For NRI rivers, consult with the National Park Service pursuant to Section 5 of the Act to determine if your project will have an adverse effect.

☐ No: STOP here. Project is in compliance with this section. Please attach all necessary supporting documentation.

☐ Yes: PROCEED to #**4**

4. Can you mitigate the impact to the river?

☐ Yes. Attach mitigation plan. Require mitigation as part of grant agreement and other contracts. Monitor project to ensure mitigation followed-through.

☐ No. Cancel project at this location.

DISCLAIMER: This document is intended as a tool to help HUD Region X grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement, and the Wild and Scenic Rivers legislation and regulations take precedence over any information found in this document.


Lake Cushman
South Fork Skokomish River
Vance Creek
North Fork Skokomish River
Skokomish River
MASON COUN
Middle Fork Satsop River
Decker Creek
East Fork Satsop River
Sanderson Field
Goldsborough Creek
Shelton
N HWY 101
119
106
101
108
2000
1000
500
4000
Legend

WILD & SCENIC RIVER STUDIES

Wild & Scenic River Studies

There are two study provisions in the Act — Section 5(a), through which Congress directs the study of select rivers, and Section 5(d)(1), which directs federal agencies to identify potential additions to the National Wild and Scenic Rivers System (National System) through federal agency plans. A brief explanation is provided in the following respective sections.

Choose A State Go
Choose A River Go

While progress should never come to a halt, there are many places it should never come to at all. — Paul Newman

Current Active Studies

Currently, there are three rivers or river systems under "authorized" study—two under Section 5(a) of the Wild & Scenic Rivers Act and one under Section 2(a)(ii). This does not include those that might be under assessment as part of normal agency land-planning processes.

Rivers Currently Under Study

- **Cave, Lake, No Name and Panther Creeks, Oregon** (Public Law 113-291, December 19, 2014) – Under study by the National Park Service.
- **Housatonic River, Connecticut** (Governor Malloy Request for Section 2(a)(ii) Designation, November 16, 2016) – Under study by the National Park Service.
- **York River, Maine**. (Public Law 113-291, December 19, 2014) – Under study by the National Park Service.

Section 2(a)(ii) Studies

Under Section 2(a)(ii) of the Act, a governor (or governors for a river in multiple states) of a state can request that a river be designated, provided certain conditions are met (refer to the **Council White Paper on Section 2(a)(ii)** for specifics). The NPS then conducts a study to determine of certain conditions are met. Here are some of the studis conducted under Section 2(a)(ii). Again, if you don't see a study listed, we do not have a copy.

Section 2(a)(ii) Studies Available for Download

- **Allagash River Study Report, Maine**


Nationwide Rivers I...
This is a listing of more than 3,200 free-flowing river s...
National Park Service
U.S. Department of the Interior
Park Tiles Standard
Shelton, wa
E Brockdale Rd
N 13th St
E State Route 3
W Shelton Matlock Rd
Shelton
101
SE Arcadia Rd
101

Environmental Justice

Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Address disproportionately high and adverse human health or environmental effects on minority and low-income populations.	Executive Order 12898, February 11, 2004	24 CFR 50.4(l) and 24 CFR 58.5(j).

1. Is there an adverse environmental impact caused by the proposed action, or is the proposed action subject to an adverse environmental impact?

This question is designed to determine how the Environmental Justice analysis is reflected in the environmental review as a whole. Your consideration of the other environmental laws and authorities is your supporting documentation for this question. If any other environmental law or authority required mitigation (i.e., 8-step process for locating in a flood plain, waiver of noise requirements), then there is an adverse environmental impact.

☒ No: STOP here. The project does not pose an Environmental Justice concern.
☐ Yes: PROCEED to #**2**

2. Will the project have a disproportionate impact on low-income or minority populations?

The following steps will help you make this determination:

1) Describe the project.
2) Consider historic uses of the site, past land uses and patterns (such as lending discrimination and exclusionary zoning).
3) Determine the demographic profile of the people using the project and/or living and working in the vicinity of the project. EPA's environmental justice geographic assessment tool provides helpful demographic information: http://epamap14.epa.gov/ejmap/entry.html
4) Describe the adverse environmental impact you identified in your environmental review. Identify adjacent land uses, paying particular attention to toxic sites, dumps, incinerators, hazardous materials (e.g. asbestos), and other issues with the potential to have adverse human health effects. (This may already have been considered in your review of toxic and hazardous substances.)
5) Consider how the adverse environmental impact and any potentially harmful adjacent land uses would impact the people using and/or surrounding the project.
6) Consider whether market-rate development exists in the area. If not, would this project succeed as a market-rate project at the proposed site?

☐ No: STOP here. Maintain documentation concerning your determination of no disproportionate impact.
☐ Yes: Consult with HUD environmental staff to develop a mitigation plan. An Environmental Justice mitigation plan must include public outreach, participation and community involvement. The project can not move forward until the EJ issue is mitigated to the satisfaction of HUD or the Responsible Entity and the impacted community.

DISCLAIMER: This document is intended as a tool to help Region X HUD grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement. Legislation and Regulations take precedence over any information found in this document.

SITE-SPECIFIC FIELD CONTAMINATION CHECKLIST

Completing the form requires a site visit by the preparer. The preparer should be sure to observe the property by walking through the property and the building(s) and other structures on the property to the extent possible and observing all adjoining* properties.

PREPARER MUST COMPLETE CHECKLIST IN ITS ENTIRITY

Date of Visit: 1/14/2021	Time: 2:30 pm	Weather Conditions: Partly sunny (by Western Washington Standards)

Program Name: Quixote Veteran Village

Project Location/Address: 2471 North 13th Street, Shelton, WA

Property Owner: City of Shelton

Attach the following, as appropriate:

☐ **Photographs of site and surrounding areas** ☐ **Maps (street, topographic, aerial, site map, etc.)**

QUESTION Is there evidence of any of the following?	OBSERVATION	
	SUBJECT PROPERTY	ADJOINING PROPERTIES
Is the property or any adjoining property currently used, or has evidence of prior use, as a ***gasoline station, motor vehicle repair facility, printing facility, dry cleaners, photo developing laboratory, junkyard, or as a waste treatment, storage, disposal, processing or recycling facility***?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Are there any damaged or discarded ***automobile(s), automotive or industrial batteries, pesticides, paints, or other chemicals*** in individual containers greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the property or adjoining properties?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Are there any industrial ***drums*** (typically 55 gal) or sacks of ***chemicals, herbicides or pesticides*** located on the property or adjoining properties?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Has ***fill dirt*** been brought onto the property or adjoining properties that originated from a suspicious site or that is of an unknown origin?	YES ☒ NO ❑ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Are there any ***pits, ponds, or lagoons*** located on the property or adjoining properties in connection with waste treatment or waste disposal?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Is there any ***stained soil, distressed vegetation*** **and/or** ***discolored water*** on the property or adjoining properties?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Are there any ***storage tanks***, aboveground or underground (other than residential), located on the property or adjoining properties?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑

**Adjoining properties*: Any real property or properties the border of which is contiguous or partially contiguous with that of the property, or that would be contiguous or partially contiguous with that of the property but for a street, road, or other public thoroughfare separating them.

QUESTION Is there evidence of any of the following?	SUBJECT PROPERTY	ADJOINING PROPERTIES
Are there any ***vent pipes, fill pipes, or underground tank access ways*** visible on the property or adjoining properties?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Are any flooring, drains, walls, ceilings, or grounds on the property or adjoining properties ***stained by substances*** (other than water) or emitting ***noxious or foul odors*** or ***odors of a chemical nature?***	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Is the property served by a ***private well or non-public water system***? (If yes, a follow-up investigation is required to determine if contaminants have been identified in the well or system that exceed guidelines applicable to the water system, or if the well has been designated contaminated by any government environmental/health agency.)	YES ❑ NO ☒ UNKNOWN ❑	
Has the owner or occupant of the property been informed of the existence of past or current ***hazardous substances or petroleum products or environmental violations*** with respect to the property or adjoining properties?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Do the property or adjoining properties ***discharge wastewater*** (not including sanitary waste or storm water) onto the property or adjoining properties and/or into a storm water system?	YES ❑ NO ☒ UNKNOWN ❑	YES ❑ NO ☒ UNKNOWN ❑
Is there a ***transformer, capacitor, or any hydraulic equipment*** on the property or adjoining properties that are not marked as "non-PCB"?	YES ❑ NO ❑ UNKNOWN ☒	YES ❑ NO ❑ UNKNOWN ☒

If answering "YES" or UNKNOWN" to any above items, describe the conditions:

The site has been historically utilized as a storage site for dirt and gravel by the City of Shelton and the northern portion of the site contains a Bonneville Power Administration (BPA) electrical transmission corridor with associated towers. See attached photos.

Use photographs and maps to mark and identify conditions. Attach more information as needed.

Is further evaluation warranted? YES ❑ NO ☒ UNCERTAIN ❑

Preparer of this form must complete the following required information.

This inspection was completed by: Name: Jason Dose Title: Senior Planner	Phone Number: 360-432-5102 Email: Jason.Dose@SheltonWA.gov Agency: City of Shelton
Address: 525 West Cota Street, Shelton, WA 98584	

Preparer represents that to the best of his/her knowledge the above statements and facts are true and correct and to the best of his/her actual knowledge no material facts have been suppressed, omitted or misstated.	
Signature:	Date: 1/14/2021

Site Photos

Quixote Veteran Village Site

January 14, 2021

Photo Attempts to Show Representation of the noted BPA power corridor which lies north of the site.

Photo illustrates a small transformer on an adjacent power pole in the BPA powerline corridor which lies north of the site.

Photo is intended to illustrate representative gravel piles on the site.

Photo is intended to illustrate representative gravel piles at the site.

Photo is intended to illustrate representative gravel piles at the site.

Photo shows several logs stored at the site from downed trees following a recent storm.

Mason County WA GIS Web Map

1/14/2021, 12:46:40 PM

1:3,071

0 0.03 0.05 0.1 mi

0 0.04 0.08 0.16 km

County Boundary

Tax Parcels (Zoom in to 1:30,000)

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Mason County WA GIS Web Map Application
Richard Diaz | Earthstar Geographics |

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

***Instructions for applicants*:**

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

The help links in this checklist are intended to assist users in accessing guidance on the checklist questions. Links are provided to the specific sections of the guidance applicable to the questions. However, the links may not work correctly on all devices. If the links do not work on your device, open the guidance at www.ecy.wa.gov/programs/sea/sepa/apguide/EnvChecklistGuidance.html and navigate to the appropriate section.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

   Shelton Veterans Village

2. Name of applicant:

   Quixote Communities

3. Address and phone number of applicant and contact person:

   Quixote Communities
   Attn: Jaycie Osterberg
   3350 Mottman Rd. SW
   Olympia, WA 98512
   (360) 426-9731

4. Date checklist prepared:

   August 22, 2019

5. Agency requesting checklist:

   City of Shelton, WA

6. Proposed timing or schedule (including phasing, if applicable):

   The project will be completed in one phase with anticipated substantial construction completion by fall 2020.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   None at this time

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

   None at this time

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

   None known

10. List any government approvals or permits that will be needed for your proposal, if known.

    Site Plan approval, land modification permit, building permits

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site.

    Community center and 30 tiny homes for veterans with associated parking, landscaping, public/private utility, and storm drainage improvements.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known.

    2741 N. 13th St.
    Shelton, WA 98584
    SE ¼ of SW ¼ of Section 7, Township 20N, Range 3W, W.M.
    Portion of Parcel No. 32007-30-60000

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

(circle one): (Flat), rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)?

Approximately 80% (in areas of soil/gravel stockpiles by City of Shelton); otherwise, the site is flat

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Carstairs Gravelly Loam (HSG A) per the NRCS.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

None known

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Approximately 2,600 cubic yards of grading will be required to construct the proposed improvments (foundations, utility trenches, storm drainage facility, parking lot).

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion can occur during construction of the building, parking, and utility improvements. An erosion and sedimentation control plan will be prepared meeting City of Shelton requirements and Best Management Practices (BMP's) will be implemented during and after construction to prevent and control erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 26.6% (buildings, parking lot, driveway, patio, walkways)

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

An erosion and sedimentation control plan will be prepared meeting City of Shelton requirements and Best Management Practices (BMP's) will be implemented during and after construction to prevent and control erosion.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Emissions from typical construction equipment and dust during contruction; emissions from vehicles after the project is completed. Quantities are unkown.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None known

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None

3. **Water**

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.
Yes. Shelton Creek is located approximately 200-feet west of the proposed western lease line.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.
No.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
No

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.
Yes. Groundwater will be withdrawn from existing municipal wells for domestic and irrigation uses associated with the proposal. Quantities are currently unknown.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
None.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
The new parking and manuevering areas will be constructed of permeable pavement. Stormwater runoff from the new Community Center roof area will be conveyed to a below-grade downspout infiltration trench and stormwater runoff from the tiny home roof areas will be sheet-flow dispersed onto adjacent lawn/landscape areas. All stormwater runoff generated by the proposed site improvements will be contained on-site.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Not likely. A pollution source control plan will be a part of a storm drainage maintenance agreement that will be recored at the county auditor's office prior to final project approval. This plan will outline the Best Management Practices to help reduce the potential for any waste materials to enter ground water.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

The new parking and maneuvering areas will be constructed of permeable pavement. Stormwater runoff from the new Community Center roof area will be conveyed to a below-grade downspout infiltration trench and stormwater runoff from the tiny home roof areas will be sheet-flow dispersed onto adjacent lawn/landscape areas. All stormwater runoff generated by the proposed site improvements will be contained on-site.

4. **Plants**

a. Check the types of vegetation found on the site:

__X_deciduous tree: alder, maple, aspen, **Oregon White Oak**
__X_evergreen tree: **fir**, cedar, **pine**, other
__X_shrubs
__X_grass
__X _pasture
____crop or grain
____ Orchards, vineyards or other permanent crops.
____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
____water plants: water lily, eelgrass, milfoil, other
____other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Approximately 2,000 square-feet of brush and trees (approximately 20 pine and one oak) will be cleared/removed.

c. List threatened and endangered species known to be on or near the site.

None known

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

A landscape plan will be prepared meeting City of Shelton requirements. Existing vegetation will be retained to the maximum extent practical which mainly includes the area along the eastern lease line and the southern portion of the lease area.

e. List all noxious weeds and invasive species known to be on or near the site.

None known

5. **Animals**

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.
None known

c. Is the site part of a migration route? If so, explain.
Unknown

d. Proposed measures to preserve or enhance wildlife, if any:
None

e. List any invasive animal species known to be on or near the site.
None known

6. **Energy and Natural Resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Electricity and natural gas will be used for heating and general electrical needs

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
The proposed buildings will meet or exceed Washington State energy code requirements.

7. **Environmental Health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
None known

1) Describe any known or possible contamination at the site from present or past uses.
None known

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None known

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
None

4) Describe special emergency services that might be required.
None

5) Proposed measures to reduce or control environmental health hazards, if any:
None

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
No existing noises will affect the proposal.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
Short-term: Construction equipment noise during construction
Long-term: Noises typical to vehicle traffic for a residential community

3) Proposed measures to reduce or control noise impacts, if any:
Construction hours will be limited to city approved hours

8. **Land and Shoreline Use**

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.
The proposed lease area is currently used as a soil/gravel stockpile area for the City of Shelton. The project area is bordered by N. 13th St., Shelton Springs Rd., and E. Wallace Kneeland Boulevard. The closest existing uses are a residetial community and the Shelton Health and Rehabilitation Center, both easterly of N. 13th St. The proposal will not affect land uses on nearby or adjacent properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?
Not likely

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
No

c. Describe any structures on the site.
None

d. Will any structures be demolished? If so, what?
N/A

e. What is the current zoning classification of the site?
NR Neighborhood Residential

f. What is the current comprehensive plan designation of the site?
Residential

g. If applicable, what is the current shoreline master program designation of the site?
Not applicable

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
Not within the proposed lease area.

i. Approximately how many people would reside or work in the completed project?
30 residents and approximately 2 employees per shift

j. Approximately how many people would the completed project displace?
None

k. Proposed measures to avoid or reduce displacement impacts, if any:

None

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The project will meet City of Shelton zoning code requirements.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

30 units, low income housing.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

c. Proposed measures to reduce or control housing impacts, if any:

None

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The Community Center will have an approximate building height of 15-feet and the tiny homes will have heights of approximately 10-feet 6-inches. Cement fiber siding with various patterns.

b. What views in the immediate vicinity would be altered or obstructed?

None

b. Proposed measures to reduce or control aesthetic impacts, if any:

None

11. **Light and Glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Parking lot and exterior building lighting from dusk to dawn

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Not likely. Light fixtures will be shielded.

c. What existing off-site sources of light or glare may affect your proposal?

None known

d. Proposed measures to reduce or control light and glare impacts, if any:

Light fixtures will be shielded.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?

Elementary, middle, and high schools are located nearby. The majority of City of Shelton Parks are located in downtown Shelton, approximately 1.5-miles from the proposed project.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Sports courts (volleyball, pickleball, etc.) may be constructed for private use of the residents.

13. **Historic and cultural preservation**

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

None known

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

None known

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Review of Washington State Department of Archaeology & Historic Preservation website (WISAARD database).

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

None at this time.

14. **Transportation**

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

A new access off N. 13th St. will be serve the proposed project.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Mason Transit Authority has a bus route along N. 13th St. with a stop near the subject project.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Approximately 30 total off-street parking spaces will be provided.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

3 a.m. and 5 p.m. peak hour vehicle trips with the peak volume between 4 p.m. – 6 p.m. per the Traffic Impact Assessment prepared by Heath & Associates, dated May, 2019.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

h. Proposed measures to reduce or control transportation impacts, if any:

Mitigation fees will be paid if required

15. **Public Services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No new public service facilties are proposed; however, the project will increase the need on existing public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Mitigation fees will be paid as required by any existing regulations.

16. **Utilities**

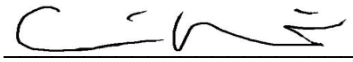
a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

City of Shelton water, sanitary sewer, and refuse/recycling; telecommunications from CenturyLink and Comcast; elecrictiy from Mason County PUD #3; natural gas from Cascade Natural Gas

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Name of signee Chris Merritt

Position and Agency/Organization Olympic Engineering

Date Submitted: August 22, 2019

Mitigated Determination of Nonsignificance (MDNS)
W.A.C. 197-11-340
December 9, 2019

Environmental Review Application No.: SEPA # 09-19

Project Name: **Shelton Veterans Village**

Project Location: 2741 North 13th Street, Shelton, WA
(Portion of) Assessor's Parcel Number: 32007-30-60000
The project site is located on the West side of North 13th Street, South of the Bonneville Power Administration power line corridor, to the north east of Shelton Springs Road and East of Shelton Creek.

Applicant: Quixote Communities Incorporated
3350 Mottman Road Southwest
Olympia, WA 98582

Lead Agency: City of Shelton

Lead Agency Contact: Jason Dose
Senior Planner
525 West Cota Street
Shelton, WA 98584
360-432-5102
jasond@ci.shelton.wa.us

I. Project Description:

The applicant requests Land Use and Construction approvals to construct 30 small homes varying between approximately 160 and 200 square feet. The homes would be targeted for occupancy by homeless veterans Each home would have a sleeping area and ¾ bath. The proposal includes the construction of a 30 space parking lot and 2,160 square foot Community Building. The Community Building would include laundry facilities, offices for staff, a large commercial kitchen for community meals, and a day/living room.

The bulk of the development would occur in an area of the site that has already been cleared

and utilized as a City of Shelton Public Works spoils stockpile area. Minimal native vegetation would be removed except as needed to install utilities and to facilitate the placement of structures. The vegetation at the site would be enhanced with additional plantings with native plants.

II. COMMENTS RECEIVED

City staff received a total of five (5) comment letters regarding the proposal. Two, from the Washington State Department of Ecology (DOE) relate to more "boilerplate" type State permitting requirements that are well covered in the City's existing codes, policies, and procedures. The other three letters were received from members of the community and relay concerns generally revolving around the potential for aesthetic impacts, fire hazards, traffic impacts, and potential for impacts to police and fire departments (relating to calls for aid, relapse, etc.).

1) **Concern regarding aesthetic Impacts.** Comments relay a general concern regarding the potential for the site to become unkempt looking, citing concerns they have with the appearance of other, "tiny", home sites throughout the region that also target the homeless population. ***Staff Response.*** As a discretionary project reviewed through the Shelton Municipal Code and, specifically, considered through the Planned Unit Development and Site Plan Review process, the final architectural and landscaping plans are approved as a "package", of sorts, that is required to be maintained, as approved, for the life of the project (or amendment to the permits). Further, the Shelton Municipal Code broadly defines "nuisances" and gives the City of Shelton the authority to enforce general aesthetic/appearance requirements on all properties within City limits (not just PUD's). The commenter also cited photos of another community also managed by the applicant that illustrate sheets and tarps being utilized as window/porch coverings. Staff has been informed by the applicant that residents at the Shelton Veterans Village will not be allowed to hang "sheets, tarps, or other handmade materials on their roof/porch" and the applicant is considering a universal screening material for the entire village (for consistency). City staff's review of the proposal has emphasized the retention of existing (native) vegetation to the degree possible while requesting a landscaping plan that augments the existing vegetation to create as natural look condition, when viewed from the North 13th Street frontage, as possible.
2) **Concern regarding fire hazard.** Comments relay a concern that, since the site lies adjacent to the Bonneville Power Administration (BPA) power line corridor that an elevated fire risk exists, similar to the much reported risks and fires that exist adjacent to PG and E corridors in California. ***Staff Response.*** The BPA power line corridor is maintained to a MUCH higher standard than PG and E corridors through rural California. BPA regularly patrols corridors and mows vegetation and cuts trees and limbs to maintain proper clearance from lines to trees and the ground. Further, the Shelton Fire Marshall has reviewed the proposal for compliance with applicable fire and life safety requirements and it is compliant with applicable standards. The preliminary design also incorporates an additional fire hydrant, located central to the project, to allow for ease of access to fire suppression water should the need arise.
3) **Traffic Impacts.** Comments relay a concern for the very busy intersections

located in the vicinity of the project and the fact that 30 additional units would add traffic to the busy intersections. ***Staff Response.*** The applicant submitted a Traffic Impact Analysis (Heath and Associates, May 2019) that was reviewed by the City of Shelton Engineering Department. Impacts to intersections are generally gauged by a project's projected addition to "peak hour" vehicle trips (AM and PM). In sum, the project is anticipated to be a very low "peak" hour trip generator (3 AM trips and 5 PM trips are anticipated). That said, City staff is aware of the concerns regarding the congestion that occurs at surrounding intersections and is currently working on the design of mobility improvement projects (roundabouts). The proposed project would be required to pay traffic impact fees in an amount of approximately $28,000 (the final amount would be calculated at the time of building permit). Traffic Impact fees are utilized to expand capacity on City roadways and can be used as matching funds for grants or used directly for smaller capacity related projects.

4) **Police, Fire, Aid calls.** Comments relay a concern for potential impacts relating to increased calls for service at the site by emergency responders. ***Staff Response.*** All residential facilities require response by emergency responders. It should be noted that the proposed project includes the provision of on site social/case management workers that are trained professionals that certainly will be on hand to assist residents but also ensure emergency response is called when necessary. The project has been reviewed by the City of Shelton fire marshall for appropriate access (to buildings and facilities) as well as that appropriate fire flow (water) is supplied to the site and fire hydrants are supplied as necessary to satisfy the fire code.

II. THRESHOLD DETERMINATION

State Environmental Policy (RCW 43.21C) and the State Administrative Rules (SEPA Rules, WAC 197-11) stipulate that an EIS be prepared when there is a potential significant adverse environmental impact for which mitigation is not easily identified. The City of Shelton believes that the information being provided gives adequate information for the City of Shelton to identify potential impacts and the City's current codes and regulations are adequate to address any concerns thus, an EIS is not required.

Lead Agency: City of Shelton
The lead agency for this proposal has determined that the project does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

This MDNS is issued utilizing the Optional Determination of Nonsignificance process codified in WAC 197-11-355 and no additional comment period is required. The following mitigation is applied:

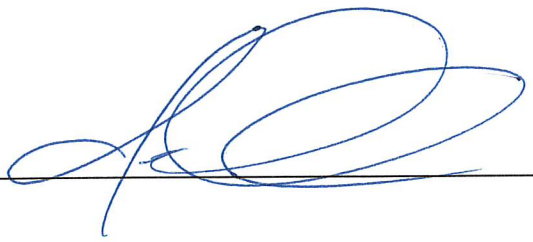
1. The applicant shall apply for appropriate land use permitting through the City of Shelton for review of the proposal and consideration of potential impacts. Anticipated permitting includes, but is not limited to: Planned Unit Development (PUD) permitting,

Site Plan Review permitting, and building permitting. The project is subject to all applicable requirements of those permit processes.

2. The applicant is subject to all applicable requirements relating to the provision of utilities (water and sewer) as well as handling and treatment of storm water pursuant to the Shelton Municipal Code and the City of Shelton Public Works Design and Construction Standards.

Appeals:
There are no provisions for an administrative appeal of this threshold determination and MDNS to the City of Shelton. An appeal of this threshold determination must be made in conjunction with a specific governmental action. Judicial appeals are subject to the Revised Code of Washington Section 43.21C.075.

Responsible Official: Jason Dose
Position Title: Senior Planner
Address: City of Shelton
525 W. Cota Street
Shelton, WA 98584
E-mail: jason.dose@sheltonwa.gov
Phone: 360-432-5102

Signature 

Date: December 9, 2019

Associated Environmental Group, LLC

Phase I
Environmental Site Assessment

Conducted on:

Vacant Land
Tax Parcel 32007-30-60000
Shelton, Washington 98584

Prepared for:

Quixote Communities
3350 Mottman Road Southwest
Olympia, Washington 98512

AEG Project #: 19-128
Date of Report: April 24, 2019

PROJECT SUMMARY TABLE

Property: Tax Parcel 32007-30-60000, Shelton, Washington 98584

Report Section		No Further Action	REC	CREC	HREC	Other Environmental Considerations	Recommended Action
1.5	Data Gaps	✓					None
2.2	Current Property Use	✓					None
2.3	Adjoining Property Use	✓					None
4.0	User Provided Information	✓					None
5.0	Interviews	✓					None
6.0	Historical Summary	✓					None
7.0	Regulatory Database Records	✓					None
7.2	Agency Records Review	✓					None
8.0	Site Reconnaissance	✓					None
8.2	Asbestos-Containing Materials	✓					None
8.2	Lead-Based Paint	✓					None

EXECUTIVE SUMMARY

Associated Environmental Group LLC (AEG) has performed a Phase I Environmental Site Assessment (Phase I ESA) under All Appropriate Inquiry (AAI) Standard Practices in general conformance with ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* for the property identified as Mason County Assessor Tax Parcel 32007-30-60000, Shelton, Mason County, Washington 98584 (the "Property"). The Phase I ESA is designed to provide Quixote Communities with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the Property.

Property Description

The Property is situated on a larger parcel identified as the Parent Parcel within the triangle formed by East Wallace Kneeland Boulevard to the north, North 13th Street to the east, and North Shelton Springs Road to the southwest within a mixed residential and commercial area of Mason County.

Property Data	
Address	None assigned
Additional/Historical Addresses	None
Property Use	Commercial
Historical Use	Undeveloped land
Land Acreage	2.93 acres (per legal description) of the 120.84-acre Parent Parcel
Number of Buildings	None
Assessor's Parcel Number	32007-30-60000 (Parent Parcel)
Current Tenants	None

The Property consists of a 2.93-acre triangular area located on the east side of the larger 120.84-acre triangular-shaped Parent Parcel. The Property was observed to be structurally unimproved but is used to store soil, gravel, and logs. Access to the Property is via a driveway apron and primitive road that opens on North Shelton Springs Road.

A review of Mason County Department of Assessments documentation, Washington State Department of Ecology (Ecology) records, aerial photos, city directories, regulatory agency records, the regulatory database report, and site reconnaissance indicated that the Parent Parcel has historically been structurally unimproved land since at least 1939. It appears that the City began using the site to stage sand, gravel, soil, logs, and other materials on site sometime in the 1980s. No hazardous materials or petroleum products were observed on the Property or Parent Parcel on the day of the site visit.

The Property is located within the incorporated limits of the City of Shelton. Nearby properties were observed to consist of Bonneville Power Transmission Lines to the north and northwest, North Shelton Springs Road to the south followed by undeveloped land, and North 13th Street to the east followed by Shelton Health and Rehabilitation Center, Christmas Village (retirement community), and Fir Land Health and Rehabilitation Center.

The Parent Parcel was not identified in the Environmental Data Resources, Inc. (EDR) Regulatory Database Report of Section 7.1.

Findings and Conclusions

AEG has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 under AAI for the property identified as Mason County Assessor Tax Parcel 32007-30-60000 in Shelton, Mason County, Washington 98584. Any exceptions to or deletions from this practice are described in Section 2.4 of this report.

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- No *RECs* were identified for the Property.

A *controlled REC* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- No *controlled RECs* were identified for the Property.

A *historical REC* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- No *historical RECs* were identified for the Property.

An *environmental issue* refers to environmental concerns identified by AEG, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- No *environmental issues* were identified for the Property.

Recommendations

AEG has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 for the property identified as Mason County Assessor Tax Parcel 32007-30-60000 in Shelton, Mason County, Washington (Property). Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report. AEG identified the following:

- No further investigation appears warranted at this time.

Shelton Veterans Village

Shelton, Washington

Preliminary Stormwater Site Plan Report

August 22, 2019

Prepared by:

OLYMPIC ENGINEERING

PO Box 12690
Olympia, WA 98508
360.705.2474
www.olyeng.com

PRELIMINARY STORMWATER SITE PLAN REPORT

SHELTON VETERANS VILLAGE

Shelton, Washington
August 22, 2019

Project Information

Prepared for:	Quixote Communities
Contact:	Quixote Communities Attn: Jaycie Osterberg 3350 Mottman Rd. SW Olympia, WA 98512

Reviewing Agency

Jurisdiction:	City of Shelton
Project Number:	_____
Project Contact:	Jason Dose, Senior Planner

References

WSDOE *Stormwater Management Manual for Western Washington, 2014 ed. (Stormwater Manual)*

Project Engineer

Prepared by:	Olympic Engineering, Inc. PO Box 12690 Olympia, WA 98508 (360) 705-2474 www.olyeng.com
Contact:	Chris Merritt, PE
OE Project:	18010
File Number:	18010_pdr.doc

8/22/19

Table of Contents

APPENDICES

PART 1 – PROJECT OVERVIEW

Site Address:	Unassigned N. 13th St. Shelton, WA 98584
Parcel Number:	Portion of 32007-30-60000
Total Proposed Lease Area:	±3.233 Acres
Zoning:	NR – Neighborhood Residential
Section, Township, Range:	Section 7 Township 20 North Range 3 West, W.M.

Proposed Improvements

The proposed project will include construction of a ±2,140 sf single-story community center and 30 tiny homes along with associated access, parking lot, storm drainage, landscaping, and private/public utility improvements.

PART 2 – EXISTING CONDITONS SUMMARY

The majority of the proposed lease area is used as a soil/gravel stockpile yard area for the City of Shelton. The southern portion of the lease area is forested and there is a strip of trees (mostly pine) along the eastern lease line along N. 13th St. Shelton Creek is located approximately 200-feet west of the western lease line. The site is generally flat except for the imported soil/gravel stockpiles.

The Natural Resources Conservation Service (NRCS) Soil Survey of Mason County classifies the on-site and surrounding area soils as Carstairs Gravelly Loam (HSG A). A Geotechnical Investigation and Engineering Report was prepared by Materials Testing & Consulting (MTC), dated June 3, 2019. MTC encountered imported material overlying native glacial outwash across the majority of the area to be developed.

Per FEMA FIRM Map Panel #53045C0605E, the lease and surrounding areas are within Zone X. The Zone X designation signifies areas that are outside of the 0.2% annual chance floodplain.

PART 3 – OFF-SITE ANAYLSIS

The proposed lease area is bounded by N. 13th St. to the east; a BPA powerline easement to the north, and by undeveloped city owned property to the west and south.

There are no apparent indications of stormwater runoff entering the project site from surrounding properties and there does not appear to be any noticeable stormwater runoff from the subject parcel onto adjacent parcels.

Stormwater runoff from N. 13th St. is collected and routed to a swale that runs along the west side of 13th St. This swale appears to be functioning adequately.

Except for a small portion of the proposed access off 13th St., all stormwater runoff generated by the proposed improvements will be dispersed and/or infiltrated within the proposed lease area. Stormwater runoff from a portion of the proposed access will inevitably flow into the swale along the west side of N. 13th St. Since the majority of stormwater runoff will be dispersed and/or infiltrated within the lease area a quantitative off-site analysis and/or mitigation is not warranted.

PART 4 – PERMANENT STORMWATER CONTROL PLAN

Applicable Minimum Requirements

The minimum requirements for stormwater development and redevelopment sites are listed in Section I-2.4 of Volume I of the Stormwater Manual. Based on the thresholds given in this section, the proposed project must address or comment on Minimum Requirements #1 through #9. These requirements have been addressed as follows:

Minimum Requirement #1 – Preparation of Stormwater Site Plans:

A Stormwater Site Plan has been prepared (see Site Plan).

Minimum Requirement #2 – Construction Stormwater Pollution Prevention Plan (SWPPP):

A SWPPP meeting city requirements will be provided with the Final Stormwater Site Plan Report.

Minimum Requirement #3 – Source Control of Pollution:

A Pollution Source Control Program will be prepared and provided prior to final project approval, if required.

Minimum Requirement #4 – Preservation of Natural Drainage Systems and Outfalls:

There are no known natural drainage systems or outfalls located on or immediately adjacent to the proposed lease area.

Minimum Requirement #5 – On-Site Stormwater Management:

This project will meet the LID Performance Standard. The proposed stormwater Best Management Practices (BMP's) are as follows:

Lawn and Landscape Areas:

- All disturbed and/or new lawn and landscape areas will contain soils meeting the Post-Construction Soil Quality and Depth (BMP T5.13) requirements.

Roof Areas:

- Downspouts from the roof gutters for the Community Center will be tightlined to a downspout infiltration trench (BMP T5.10A) for detention and 100% infiltration of stormwater runoff from the roof area.
  - The 4' high infiltration trench will provide for 1.35' of freeboard. At a maximum ponding depth of 2.65', the facility will draw down in 3.2 hours (2.65'x12")/10"/hr = 3.2 hours). See WWHM modeling results in the Appendix.
- Downspouts from the tiny homes will discharge to splash blocks (BMP T5.10). Minimum 50-foot long by 10-foot wide vegetated dispersion areas will be provided down-slope of each splash block and soils within the dispersion areas will meet the Post-Construction Soil Quality and Depth (BMP T5.13) requirements.

Other Hard Surface Areas:

- All new parking lot and fire lane will be constructed of permeable pavement (BMP T5.15) for detention, treatment, and infiltration of stormwater runoff from these areas.
  - Per WWHM, the peak stage within the permeable pavement section is less than 0.1-inch. See WWHM modeling results in the Appendix.
- Stormwater runoff from walkway and patio areas will be sheet flow dispersed (BMP T5.12) onto adjacent lawn/landscape areas. Soils within the dispersion areas will meet the Post-Construction Soil Quality and Depth (BMP T5.13) requirements.

Modeling Narrative

- Stormwater runoff from parking lot and roof areas being infiltrated are considered "non-effective" and can be excluded from the hard surface area threshold determination of Minimum Requirement #7. Additionally, all infiltrated areas can be discounted from WWHM when comparing pre- to post-developed runoff rates.
- Stormwater runoff from the walkway and patio areas being dispersed per BMP T5.12 have been modeled as "lawn" in WWHM.
- All lawn/landscape areas that meet the Post-Construction Soil Quality and Depth (BMP T5.13) requirements have been modeled as "pasture" in WWHM.
- The permeable pavement reservoir section was modeled using a 3"/hr design infiltration rate and the downspout infiltration trench was modeled using a 10"/hr rate as recommended by MTC. Evaluation of the exposed sub-grade at storm facility locations will be conducted by a geotechnical engineer to confirm these rates are acceptable.
- All areas proposed to be "disturbed" have been modeled as "forest" and the remaining areas have been modeled as they currently exist as required for analyzing the LID Performance Standard.

- The project has a single Threshold Discharge Area (TDA).

Pre- and Post-Developed project areas are included in WWHM.

Minimum Requirement #6 – Runoff Treatment:

This project will create more than 5,000 square-feet of new total pollution-generating hard surface (PGHS) area; therefore, Runoff Treatment facilities are required. The proposed parking lot and fire lane will be constructed of permeable pavement materials and the native subgrade soils beneath the permeable pavement exceeds the minimum required cation exchange capacity of 5 milliequivalents CEC/100 grams and minimum organic content requirement of 1% required for treatment per MTC.

See Minimum Requirement #5 above for a detailed description of the proposed Runoff Treatment BMP's.

Minimum Requirement #7 – Flow Control:

This project will create more than 10,000 square-feet of "effective" hard surface area; therefore, Flow Control is applicable. See Minimum Requirement #5 above for a detailed description of the proposed Stormwater Management BMP's.

Per WWHM, the project meets both LID Performance Standard and flow control duration standard.

All stormwater runoff will be infiltrated and/or sheet flow dispersed within the proposed lease area. Based on the native soils, it is expected that dispersed runoff will infiltrate almost immediately. Runoff will not be directly discharged off-site; therefore, the discharge requirement can be waived per Section I-2.5.7 of the Stormwater Manual.

Minimum Requirement #8 – Wetlands Protection:

There are no known wetlands on or immediately adjacent to the project area; therefore, this Minimum Requirement is not applicable.

Minimum Requirement #9 – Operation and Maintenance:

An operation and maintenance manual will be prepared prior to final project approval, if required. The owner will be responsible for maintaining all stormwater facilities located on-site.

PART 5 – SPECIAL REPORTS AND STUDIES

A Geotechnical Investigation and Engineering Report was prepared by Materials Testing & Consulting (MTC), dated June 3, 2019 (see Appendix).

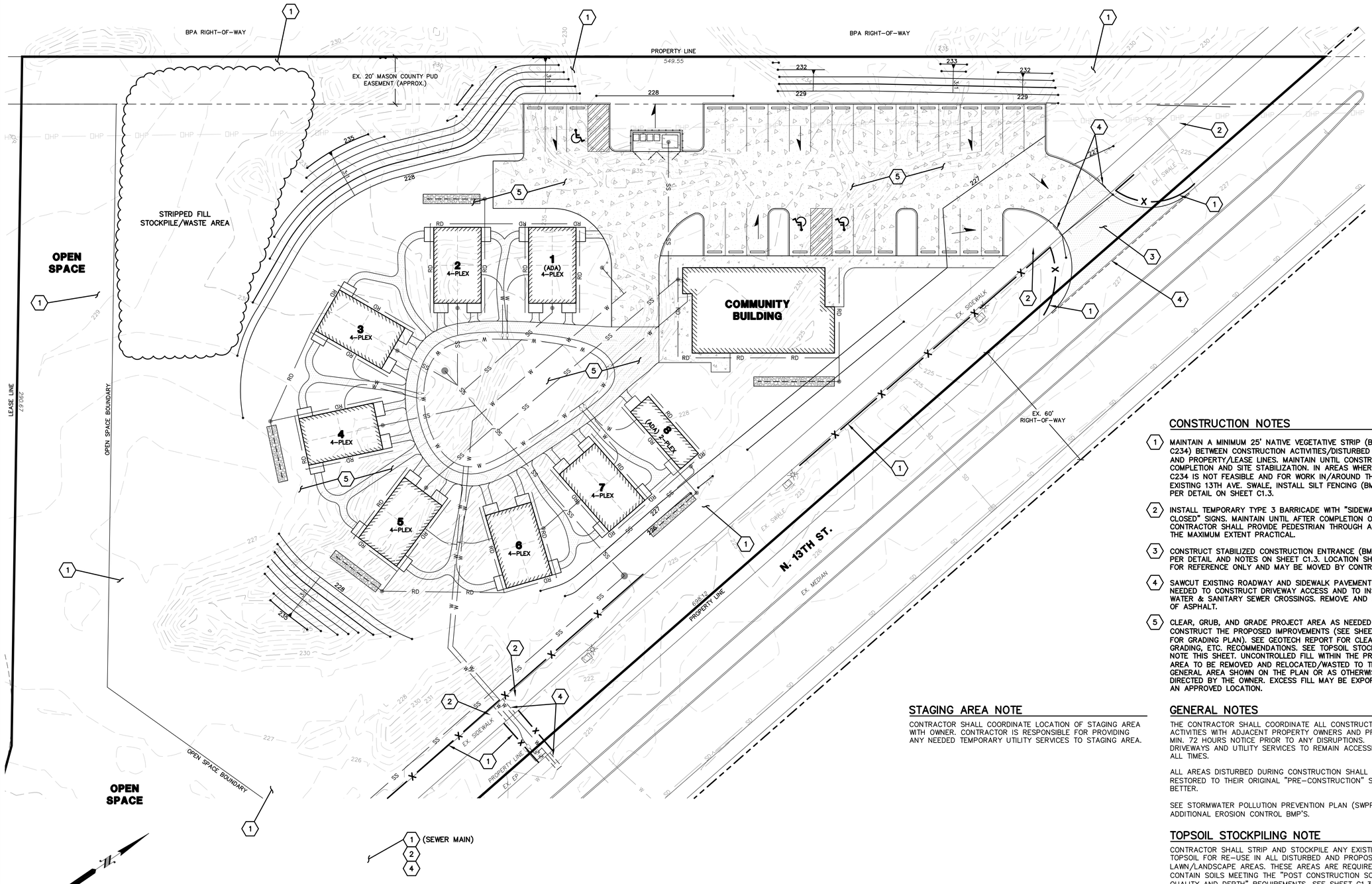
PART 6 – OTHER PERMITS

Right-of-way encroachment and land modification permits will be required prior to construction start.

PART 7 – OPERATION AND MAINTENANCE MANUAL

An operation and maintenance manual will be provided prior to final project approval, if required. The owner will be responsible for maintaining all stormwater facilities located on-site.

SEC 7, TWP 20N, RGE 3W, W.M.



CONSTRUCTION NOTES

1. MAINTAIN A MINIMUM 25' NATIVE VEGETATIVE STRIP (BMP C234) BETWEEN CONSTRUCTION ACTIVITIES/DISTURBED AREAS AND PROPERTY/LEASE LINES. MAINTAIN UNTIL CONSTRUCTION COMPLETION AND SITE STABILIZATION. IN AREAS WHERE BMP C234 IS NOT FEASIBLE AND FOR WORK IN/AROUND THE EXISTING 13TH AVE. SWALE, INSTALL SILT FENCING (BMP C233) PER DETAIL ON SHEET C1.3.
2. INSTALL TEMPORARY TYPE 3 BARRICADE WITH "SIDEWALK CLOSED" SIGNS. MAINTAIN UNTIL AFTER COMPLETION OF WORK. CONTRACTOR SHALL PROVIDE PEDESTRIAN THROUGH ACCESS TO THE MAXIMUM EXTENT PRACTICAL.
3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (BMP C105) PER DETAIL AND NOTES ON SHEET C1.3. LOCATION SHOWN IS FOR REFERENCE ONLY AND MAY BE MOVED BY CONTRACTOR.
4. SAWCUT EXISTING ROADWAY AND SIDEWALK PAVEMENT AS NEEDED TO CONSTRUCT DRIVEWAY ACCESS AND TO INSTALL WATER & SANITARY SEWER CROSSINGS. REMOVE AND DISPOSE OF ASPHALT.
5. CLEAR, GRUB, AND GRADE PROJECT AREA AS NEEDED TO CONSTRUCT THE PROPOSED IMPROVEMENTS (SEE SHEET C1.2 FOR GRADING PLAN). SEE GEOTECH REPORT FOR CLEARING, GRADING, ETC. RECOMMENDATIONS. SEE TOPSOIL STOCKPILING NOTE THIS SHEET. UNCONTROLLED FILL WITHIN THE PROJECT AREA TO BE REMOVED AND RELOCATED/WASTED TO THE GENERAL AREA SHOWN ON THE PLAN OR AS OTHERWISE DIRECTED BY THE OWNER. EXCESS FILL MAY BE EXPORTED TO AN APPROVED LOCATION.

STAGING AREA NOTE

CONTRACTOR SHALL COORDINATE LOCATION OF STAGING AREA WITH OWNER. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY NEEDED TEMPORARY UTILITY SERVICES TO STAGING AREA.

GENERAL NOTES

THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH ADJACENT PROPERTY OWNERS AND PROVIDE A MIN. 72 HOURS NOTICE PRIOR TO ANY DISRUPTIONS. DRIVEWAYS AND UTILITY SERVICES TO REMAIN ACCESSIBLE AT ALL TIMES.

ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL "PRE-CONSTRUCTION" STATE OR BETTER.

SEE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL EROSION CONTROL BMP'S.

TOPSOIL STOCKPILING NOTE

CONTRACTOR SHALL STRIP AND STOCKPILE ANY EXISTING TOPSOIL FOR RE-USE IN ALL DISTURBED AND PROPOSED LAWN/LANDSCAPE AREAS. THESE AREAS ARE REQUIRED TO CONTAIN SOILS MEETING THE "POST CONSTRUCTION SOIL QUALITY AND DEPTH" REQUIREMENTS. SEE SHEET C1.3 AND BMP'S C125 AND T5.13 FOR REFERENCE. PROVIDE PLASTIC COVERING (BMP C123) OVER STOCKPILE(S).

"CALL UNDERGROUND LOCATE AT 1-800-424-5555 OR 811 BEFORE YOU DIG"

NO.	DATE	REVISION

SHELTON VETERANS VILLAGE
CITY OF SHELTON WA

TEMPORARY EROSION CONTROL AND DEMOLITION PLAN

DESIGNED BY: CMM
DRAWN BY: CMM
CHECKED BY:
SCALE: 1" = 20'
DATE: 9/2/2020

9/2/2020
CHRISTOPHER M. HEMMEN
STATE OF WASHINGTON
21401
REGISTERED PROFESSIONAL ENGINEER

PO Box 12690
Olympia, WA 98508
360.705.2474
www.olyeng.com
OLYMPIC ENGINEERING
Civil Engineering • Land Planning • Project Management

JOB NUMBER: 18010
DRAWING NAME: 18010_TESC

C1.1
SHEET: 3 OF 14

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item F4)

Touch Date: 02/26/2021
Brief Date: 03/16/2021
Action Date: 04/06/2021

Department: Community Development Department

Presented By: Jason Dose, Senior Planner

APPROVED FOR COUNCIL PACKET:

ROUTE TO:		REVIEWED:
☐	Dept. Head	Community Development
☐	Finance Director	
☐	Attorney	
☒	City Clerk	
☐	City Manager	

PROGRAM/PROJECT TITLE:
Shelton High School Manufacturing, Engineering, and Technology (MET) Vocational Academy Building

ATTACHMENTS:
1) Resolution No. 1191-0221
2) Hearings Examiner recommendation to Shelton City Council
3) Staff Report (& Attachments) sent to Hearings Examiner for 1/25/21 Public Hearing

Action Requested:

☐	Ordinance
☒	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

Shelton School District Number 309 applied for Land Use Permitting (SEPA, Site Plan Review, and Special Use Permit) through the City of Shelton Community Development Department for construction of a new, Manufacturing, Engineering, and Technology (MET) Vocational Academy Building. Shelton High School facilities lie within zones 3 and 6 of the City's identified Airport Overlay Zones, as codified in Chapter 20.70 of the Shelton Municipal Code. Given this, a Special Use Permit is required to be awarded for the District to expand what Chapter 20.70 of the Shelton Municipal Code (Airport Overlay Zones and Regulations) identifies as an existing "Special Function Land Use".

On January 25, 2021 the City of Shelton Hearings Examiner held a public hearing to consider the School Districts request for a Special Use Permit to allow for the construction of a (total) of 15,000 square feet of additional classroom space and two 1,750 square foot portable classrooms in the vicinity of the current staff parking lot located along Shelton Springs Road on the east side of the campus. Additional, replacement, parking would be provided on the northwestern portion of the site (see attached plans and report). The intent of the addition is to expand the offerings to district students relative to vocational interests in an effort to provide additional options for students to consider as they experience differing career paths they might pursue. The project is described in detail and proposed project plans are included in the attached staff report written for the hearings examiner prior to the public hearing. City staff recommended approval of the proposal to the Hearings Examiner subject to 8 conditions in the staff report. The hearings examiner, in turn, was tasked with considering the proposal, and making a recommendation to the City Council. The Hearings Examiners recommendation to the City Council is attached to this report. The recommendation is for Council approval of the proposal subject to 8 conditions (condition number 5 was modified by the Examiner following discussion/testimony by City and District Staff during the hearing).

ANALYSIS/OPTIONS/ALTERNATIVES:

The City of Shelton Hearings Examiner's recommendation relative to the request is included to this report as Attachment 2. The recommendation finds that the proposal is consistent with the City of Shelton Municipal Code and the City of Shelton Comprehensive Plan and recommends that the City Council approve the proposal subject to 7 conditions.

Pursuant to Section 20.46.060B of the Shelton Municipal Code the City Council "….shall then consider these recommendations at a regular commission meeting….." and that if the City Council decides to approve the request "….it shall be done so in resolution form delineating specifically what is approved and any conditions thereof."

The Municipal Code also stipulates the standards the Hearings Examiner and/or Council should consider when granting a Special Use Permit. To that end, Section 20.46.070 of the Shelton Municipal Code reads as follows:

> ***"20.46.070 Standards for granting special use permits.***
> *The hearings examiner and city commission shall be guided by the following standards and provisions in granting a special use permit:*
>
> *A. The use requested by the special use permit shall be within the intent of this title, the comprehensive plan, and the public interest.*
>
> *B. The use requested by the special use permit shall demonstrate that it is consistent with any performance standards applicable to the district in which it is to be placed.*
>
> *C. The use requested by the special use permit shall be made on the basis of site plans submitted pursuant to Section 20.46.040(D). If the improvements are to be made over a period greater than two years, the time of improvements shall be indicated. (Ord. 1697-0407 § 1 (part), 2007: Ord. 1310-191 § 2 (part), 1991; Ord. 987 § 7.07, 1979)"*

Pages 7X and 8X of the Hearings Examiners Recommendation to the City Council as well as the attached staff report to the Hearings Examiner speaks to the standards for granting special use permits and, provided the Commission agrees with the findings/discussion contained in those documents, the Council is well within their power to grant the request.

BUDGET/FISCAL INFORMATION:

The applicant paid appropriate permit application fees to compensate staff for time spent on the proposal.

PUBLIC INFORMATION REQUIREMENTS:

All required channels were followed for public noticing for the public hearing for the proposal.

STAFF RECOMMENDATION/MOTION:

Staff recommends "I move to concur with the Hearings Examiner's recommendation for approval of the project and authorize the Mayor to sign Resolution No. 1191-0221 certifying Council approval".

RESOLUTION NO. 1191-0221

A RESOLUTION OF THE CITY OF SHELTON CITY COUNCIL CONCURRING WITH THE HEARINGS EXAMINER'S RECOMMENDATION REGARDING SPECIAL USE PERMIT 01-20, AN APPLICATION BY THE SHELTON SCHOOL DISTRICT TO ADD A VOCATIONAL ACADEMY BUILDING WITHIN ZONE 6 OF THE AIRPORT OVERLAY ZONE.

WHEREAS, the Shelton School District applied for Land Use Permitting through the City of Shelton; and,

WHEREAS, the proposed project would expand the footprint/use at the Shelton High School Campus, a "Special Function Land Use" as identified in Chapter 20.70 (Airport Overlay Regulations) of the Shelton Municipal Code; and,

WHEREAS, Chapter 20.70 of the Shelton Municipal Code codifies the City's Regulations pertaining to the consideration for expansion of Special Function Land Uses within airport overly zones; and,

WHEREAS, pursuant to Chapters 20.70 and 20.46 of the Shelton Municipal Code the City of Shelton Hearings Examiner presided over a public hearing for Special Use Permit to consider the addition to the Shelton High School Campus on January 25, 2021; and,

WHEREAS, pursuant to the findings required for Special Use Permits found in Chapter 20.46 of the Shelton Municipal Code the Hearings Examiner for the City of Shelton recommends that the City Council approve the proposal subject to the eight conditions contained in his recommendation.

NOW, THEREFORE BE IT RESOLVED, that the Shelton City Council hereby approves the Special Use Permit for expansion of Shelton High School to provide a Vocational Academy ("MET) Building subject to the Findings, Conclusions, and Conditions found in the City of Shelton Hearing's Examiners recommendation dated February 25, 2021:

INTRODUCED AND PASSED by the City Council of the City of Shelton on this 6th day of April 2021.

ATTEST: _____
Mayor Dorcy

_____
City Clerk Nault

OFFICE OF THE HEARING EXAMINER
CITY OF SHELTON
525 West Cota Street
Shelton, Washington 98584

February 25, 2021

Shelton School District Number 309
Attn: Robert Herron
700 South First Street
Shelton, WA 98584

RE: SHELTON HIGH SCHOOL MODERNIZATION AND EXPANSION PROGRAM FOR THE ADDITION OF A VOCATIONAL ACADEMY BUILDING
Site Plan Review Permit (SPR 03-20) and Special Use Permit (SUP 01-20)

Dear Applicant:

Transmitted herewith is the Report and Recommendation of the Shelton Hearing Examiner regarding your request for the above-entitled matter.

Very truly yours,

TERRENCE F. McCARTHY
Hearing Examiner

TFM/jjp
cc: Parties of Record

OFFICE OF THE HEARING EXAMINER

CITY OF SHELTON

REPORT AND RECOMMENDATION

PROJECT NAME: **SHELTON HIGH SCHOOL MODERNIZATION AND EXPANSION PROGRAM FOR THE ADDITION OF A VOCATIONAL ACADEMY BUILDING**

Site Plan Review Permit (SPR 03-20), and Special Use Permit (SUP 01-20)

APPLICANT: Shelton School District Number 309
Attn: Robert Herron
700 South First Street
Shelton, WA 98584

AGENT: AHBL
Attn: Lisa Klein
2215 North 30th Street, Suite #200
Tacoma, WA 98403

PROJECT LOCATION: 3737 North Shelton Springs Road
Shelton, WA 98584
Assessor's Parcel Number: 42012-41-60000

SUMMARY OF REQUEST:

Shelton School District is requesting a site plan review and a special use permit to authorize the addition of a Manufacturing, Engineering, and Technology (MET) Vocational Academy Building including associated parking and landscaping to its campus located at 3737 North Shelton Springs Road, Shelton.

SUMMARY OF RECOMMENDATION: Request granted subject to conditions.

DATE OF RECOMMENDATION: February 25, 2021

PUBLIC HEARING:

After reviewing Department of Community and Economic Development Staff Report and examining available information on file with the application, the Examiner conducted a

public hearing upon the request as follows:

The hearing was opened on January 25, 2021, at 10:35 a.m. and concluded at 11:00 a.m.

Parties wishing to testify were sworn in by the Examiner.

The Staff Report was marked as Exhibit A and admitted into evidence as well as Exhibits 1, 2, 3, 4, 5, and Exhibit B which is a modified Staff Report, Exhibit C, and Exhibit D a second modified Staff Report which was a proposed parking lot tree location map:

EXHIBITS

EXHIBIT A - Department of Community and Economic Development Staff Report
Att. 1 - Applicant's Written Statement
Att. 2 - SEPA Documents and SEPA Checklist
Att, 3 - Project Plans
Att. 4 - Airport Overlay Zones Survey
Att. 5 - Letter from Jason Dose dated January 25, 2021

HEARING EXAMINER MINUTES:

The Minutes of the Public Hearing set forth below are not the official record and are provided for the convenience of the parties. The official record is the recording of the hearing that can be transcribed for purposes of appeal.

Appearing was JASON DOSE, senior planner for the City of Shelton who briefly summarized the Staff Report and its attachments which are listed above and hereby incorporated by reference. Shelton High School is asking for site plan review and special use permit to authorize the addition of a Vocational Academy building including associated parking and landscaping. This addition will allow the inclusion of a Manufacturing, Engineering, and Technology courses which will prepare students for careers that require skills in areas such as construction, welding, auto repair, electronics, mechatronics, engineering and CAD as well as others. The proposal has a difficult funding source. The funding is other than the bond which was used for previous decisions improving the school. It will have to be built in phases and the special use permit which they are requesting will need to be in existence for ten years because of funding problems. The academy will be built in phases; the first phase will involve engineering aspect.

ROBERT HERRON from the school district appeared and testified about the mechanical and electrical aspects needed for the construction on the east side of the site.

MR. DOSE indicated that the south parking lot will be moved, the parking lot will be upgraded, but there will be 95 as opposed to 99 parking spaces. The Comprehensive Plan authorizes this use outright. However, since the project is located in an airport overlay

zone it needs a special use permit. The existing portables located in Zone 3 will be removed. It is anticipated that this project will be built in three separate phases. Phase 1 will involve the construction of 3,400 square foot building; Phase 2 will involve the construction of an 5,800 square foot building will be attached to the building built in Phase 1 on the west side; Phase 3 will also involve another 5,800 square foot building which will be built on the eastern side of Phase 1. The Port of Shelton is in support of this program and there is substantial support throughout the City. The students will graduate with certifications in many areas where the City employers have need for such employees. The applicant is requesting that the special use permit be for the life of ten years. Each phase will have to go through a site plan review. After the report was written, staff was informed that their recommendation for landscaping was excessively expensive and therefore they are requesting that Condition 5 be removed. They recommend approval of the project.

Reappearing was ROBERT HERRON who indicated that the school district was in agreement with the recommended conditions.

Appearing was LISA KLEIN who indicated that she felt that the Staff Report gave a good overview and appreciated the last minute changes.

No one spoke further and the Examiner took this matter under advisement.

NOTE: A complete record of this hearing is available in the office of the City of Shelton Department of Community and Economic Development.

FINDINGS, CONCLUSIONS, AND RECOMMENDATION:

FINDINGS:

1. The Hearing Examiner has admitted documentary evidence into the record, researched the issues, heard testimony, read the Staff Report and Attachments, viewed the site, and taken this matter under advisement.

2. City staff published a public hearing notice in the Shelton Journal on January 14, 2021 and on January 14, 2021, mailed notice to property owners within 300 feet of the subject site, including the Port of Shelton. On January 14, 2021, public notice was posted near the entrance to the Shelton High School Staff Parking lot. Staff also e-mailed Port of Shelton staff copies of the public hearing notice and proposed project plans.

3. The Shelton School District operated as SEPA lead agency relative to the proposal. The SEPA responsible official issued a Notice of SEPA Consultation on November 5, 2020 to solicit comments. The SEPA responsible official issued a threshold Determination (Determination of Nonsignificance) (DNS) on December 17, 2020. The threshold Determination was mailed to agencies on the same date. No appeals

were filed and the SEPA determination is final. The City of Shelton cooperated with the District during the preparation of the environmental checklist for the proposal and concurred with the determinations provided by the District.

4. The Staff Report with its attachments identifies the issues, sets out appropriate findings, conclusions and recommendations and is hereby incorporated by reference as though fully set forth.

5. Shelton School District is requesting a site plan review and a special use permit for the expansion of the school with a Vocational Academy building. The proposal consists of adding 15,000 square foot classroom addition and two portables which will each be 1,750 square feet. The proposal will be constructed in phases. Phase 1 includes the construction of a 3,400 square foot, metal frame classroom building including a core/shop, restrooms and a small mechanical platform. This phase includes construction of a ten foot wide, concrete walkway around the building, three bio retention cells, and a new infiltration trench for the proposed building's roof runoff. Three existing portables will be removed. A portion of the existing gravel access road will be paved. Some utilities will be relocated and the existing staff parking lot will be restriped. The areas where new structures will be located will be graded level and planted with grass. The parking lot close to the site which has 99 parking spaces will be reconfigured and as a result there will only be 95 parking spaces. Phase 2A of the proposal will add a 5,800 square foot building attached on the west side of the Phase 1 building, it will replace the lawn that was installed during Phase 1. This portion of the building will contain classes associated with welding and mechanical trades. Phase 2B will result in two new portables being installed. They will be relocated in what is currently a grass court yard south of the Phase 1 addition. These portables will have a separate stormwater infiltration trench. Phase 3 will involve construction of a 5,800 square foot building which will be attached to the eastern side of Phase 1. This building will contain the woodshop and covered work area. The trenches constructed in Phase 1 will be expanded during each phase to accommodate the new building runoff. All stormwater will be fully infiltrated.

6. The project site is located at 3737 North Shelton Springs Road in the northwest portion of the City of Shelton. It is to the north of Wallace Kneeland Boulevard, and to the west is Shelton Springs Road. The site is just east of Oakland Bay Junior High. The site contains 37 acres and several buildings totally approximately 260,028 square feet according to the applicant's written statement. The campus was designed as an open campus. It is accessed via three existing driveway entrances from North Shelton Springs Road, as well as a common looped driveway from Oakland Bay Junior High School/Wallace Kneeland Boulevard.

7. The high school and its associated athletic fields are adjacent to Oakland Bay Junior High campus and is surrounded by arterials (Wallace Kneeland Boulevard and Shelton Springs Road), forest lands to the north, south, and east. There are

residential uses to the northeast of the high school along Shelton Springs Road and heavy commercial uses to the northwest on Wallace Kneeland Boulevard. There are walking trails and sidewalks on each side of the street near and around the campus.

8. The City of Shelton Comprehensive Plan and zoning land use map identifies the project site as being located in the Medical/Educational zone. On pages II-9 of the Comprehensive Plan the Medical/Educational area is defined as:

> The Medical/Educational (ME) District is intended to provide for the recognition of parcels and facilities currently in use, or planned for, where the primary function is to provide services including public and private educational institutions as well as public and private health care facilities. This District is intended to provide high levels of pedestrian and transit-oriented services and a safe, pleasant, environment for education and health care. Campus style development should be encouraged in this area.

The City of Shelton zoning code Section 20.22.10 mirrors the language of the Comprehensive Plan. The City fathers have clearly indicated that their intent is that the area be used for educational facilities. The Comprehensive Plan was developed and approved on March 16, 2004, well after the high school was already in this location. The zoning code and the Airport Overlay district were also developed well after the high school and junior high were placed in this area. Both the Comprehensive Plan and the zoning code permit educational facilities outright. There is no need for a permit. However, since this site is also located in an Airport Overlay zone a special use permit is required pursuant to Chapter 20.70 of the Shelton Municipal Code.

9. The Comprehensive Plan also contains goals and policy statements which address the establishment and expansion of school facilities. Those include but are not limited to Goal LU16: Concentrate medical education facilities in the Medical/Educational District and Policy LU16a: New medical and educational facilities should be directed to the Medical/Educational District and Policy LU16b: The City should revise/create design guidelines to promote campus style development within the Medical/Educational District. As stated above, the City's Comprehensive Plan envisions school facilities being located in Medical/Educational zone and further the plan encourages campus style development such as proposed by the district with the anticipated improvements. Staff has indicated that through intelligent and thoughtful design the district has proposed an expansion of the existing campus style high school while minimizing the impact on a very constrained site.

10. As reflected on pages 5 and 6 of the Staff Report, the proposal meets all of the development standards of the Medical/Educational zone.

11. Section 20.60 of the Shelton Municipal Code codifies the City's requirements for landscaping for new projects within City limits. Staff indicates that the applicant's proposed landscaping in impacted areas complies with the requirements of the Chapter. They also indicated that the existing staff parking lot does not meet the landscape requirements of the code for new parking lots. Therefore staff recommended a proposal that the district work with the City staff to come up with a plan that includes additional landscaping in a proposed parking lot loop along Shelton Springs Road. Staff recommended Condition 5, additional landscaping area, including trees shall be provided at the site in compliance with Shelton Municipal Code Section 20.60.140 (parking lot landscaping and screening) in the interior of the proposed parking lot "loop" area located to the north of the MET structure along Shelton Springs Road frontage. Proposed condition was that school district staff and/or the project design team shall work with the City staff to develop a landscaping plan for the parking lot area in connection with the building permits proposal. During the hearing staff recommended the removal of this condition. Instead of abandoning the landscaping concept completely the Examiner does find that additional landscaping area should be provided at the site and that the school district staff and/or their design team shall work with the City to develop a landscaping plan for the parking lot area in connection with the building permits for the proposal.

12. As previously stated the high school is located in an Airport Overlay zone. Chapter 20.70 of the Shelton Municipal Code codifies the City's Airport Overlay zones and regulations. The intent of the regulations is as follows:

20.70.020 Purpose and intent.

A. Purpose. The airport overlay zone regulations have two fundamental purposes:

1. To minimize the public's exposure to excessive noise and safety hazards that would result from incompatible land use development around Sanderson Field; and

2. To protect Sanderson Field from potential encroachment by land uses that are incompatible with airport activities and that may impair the planned development and use of the airport.

B. Intent. The intent of this chapter is to:

1. Implement policies of the city of Shelton's comprehensive plan and the Port of Shelton, Sanderson Field Airport Master Plan.

2. Establish land use zoning regulations around Sanderson Field that are specifically designed to address issues of compatibility between the airport and surrounding land uses. Regulations are established with respect to compatible land use, noise, safety, and height limits (airspace protection).

The subject site is over a half mile approximately 3,300 feet to the east/southeast of Sanderson Field, a Regional Public Use Airport operated by the Port of Shelton. The site is identified by the City's Airport Overlay Regulations and associated maps as being located on the far southeast portion of the Airport Overlay Zone 3 (Inner Turning Zone) as well as the bulk of the site being located within Airport Overlay Zone 6 (Traffic Pattern Zone). This traffic pattern zone is an area which can expect regular airport overflight traffic as aircraft enter or exit Sanderson Field.

13. Schools are identified in the regulations as a "Special Function Land Use". Special Function Land Uses are considered uses that involve large groups of people with a relative inability of persons occupying the space to move out of harms way. This includes K-12 schools, nursing homes, hospitals, etc. Shelton Municipal Code Section 20.70.060C addresses Special Function Land Uses as follows:

> Special Function Land Use. Special function land uses as defined in 20.70.040(F) shall be prohibited in the land use compatibility zones 1, 2, 3, and 4. New special function land uses are also prohibited in zone 6; however, expansion of such existing uses are conditioned upon review for impacts to the airport through the special use permit provisions of Chapter 20.46, with added performance standards addressing potential noise impacts.

14. Chapter 20.46 of the Shelton Municipal Code contains provisions for special use permits within the City limits. The special use permits require public hearing before the City of Shelton Hearing Examiner who then makes a recommendation to the City of Shelton Commission. The standards for consideration of a special use permit are contained in Section 20.46.070 which provides as follows:

> The hearings examiner and city commission shall be guided by the following standards and provisions in granting a special use permit:
>
> A. The use requested by the special use permit shall be within the intent of this title, the comprehensive plan, and the public interest.

Findings with reference to A are as follows:

Educational facilities are allowed in the Medical/Educational zone both in the City of Shelton Comprehensive Plan and the City of Shelton Municipal Code. The City fathers have determined that it is in the public interest that this long established use be continued.

B. The use requested by the special use permit shall demonstrate that it is consistent with any performance standards applicable to the district in which it is to be placed.

As previously stated the proposal is consistent with the standards set out in the zoning code. Accessory educational facilities are allowed and encouraged within the medical/educational zone. Staff considers the use to be an appropriate expansion and progression of educational uses at the site and within the intent of the Overlay restrictions. The district has vacated several structures within Zone 3 (closer to the Airport Operations) to expand the facility entirely within Zone 6 (further from the Airport and Airport Operations).

C. The use requested by the special use permit shall be made on the basis of site plans submitted pursuant to Section 20.46.040(D). If the improvements are to be made over a period greater than two years, the time of improvements shall be indicated.

Phase 1 will begin this spring/summer and will be completed at the beginning of the 2022 school year. The future phases of this development according to staff are anticipated to occur every two years following, as funding becomes available. Because of possible funding problems for this project staff is recommending to the Hearing Examiner to allow for up to ten years for a ten year life span of the special use permit to allow the district time for funding and design in the future.

15. The applicants have also requested a site plan review. Site plan reviews are set out in Shelton Municipal Code 20.49 Shelton Municipal Code. Section 20.49.040 governs the application and content. Testimony and exhibits indicate that the applicant is in compliance with 20.49.040 A, B, C, 1, 2, 3, 4, D, E, F, G and with reference to D the testimony indicated that the application governing landscaping is somewhat deficient and in need of attention. Site plan approval will require the applicant to work with the City and develop an attractive landscaping plan.

Based on the foregoing findings, the Examiner makes the following conclusions:

CONCLUSIONS:

1. The Hearing Examiner has jurisdiction to consider and decide the issues presented.

2. It is the recommendation of the Hearing Examiner that the school district's application for a site plan review and special use permit should be granted subject to the following conditions:

    1. Prior to any construction at the site the applicant shall apply for and receive all necessary building permits for construction, demolition, relocation, and renovation of structures at the site through the City of Shelton Building Department. The proposal is subject to all conditioning of the required building permits required in order to achieve compliance with applicable building, fire, and life safety codes.

    2. Prior to any construction at the site the applicant shall apply for and receive Civil Improvement Drawing approval for all utilities, grading and drainage, and right of way permitting as necessary through the City of Shelton Engineering Department. The proposal is subject to all conditioning of the required reviews in order to achieve compliance with applicable City and State requirements.

    3. Prior to issuance of demolition permits and prior to any demolition activities at the site the applicant shall provide the City of Shelton Building Department evidence from the Olympic Region Clean Air Agency (ORCAA), as may be necessary, that appropriate State level air quality regulations will be complied with.

    4. All new and/or replaced exterior lighting at the site shall be full cutoff style and "Dark Skies" compliant to prevent glare on adjacent properties. Specifications/Cut Sheets for all fixtures and poles (including height), as applicable, shall be provided to the Department of Community Development for review and approval prior to issuance of building permits. Verification of installation of compliant fixtures will be made prior to final inspection and occupancy of the facility being granted.

    5. Additional landscaping area shall be provided at the site. School District staff and/or the project design team shall work with City staff to develop an attractive landscaping plan for the parking lot area in connection with pending building permits for the proposal. This landscaping plan will not be bound by the provisions of the code. It needs to be attractive and fit with the design of the site.

6. The proposal is subject to all applicable building permit, utility facility charges, and Traffic Impact Fees as may be applicable by the Shelton Municipal Code.

7. This Special Use Permit shall be authorized/approved for a period not to exceed ten years following final City of Shelton Council action. Any extension/renewal shall be processed in accordance with Chapter 20.46 (Special Use Permit) of the Shelton Municipal Code.

8. All future permit submittals shall closely match the depictions and drawings illustrated and considered in this review except as modified through conditioning of this permit. Deviations from the drawings may result in additional permitting requirements.

RECOMMENDATION:

The applicants request for site plan approval and special use permit to build a vocational academy at Shelton High School should be approved subject to the conditions contained in the conclusions above.

ORDERED this 25th day of February, 2021.

TERRENCE F McCARTHY
Hearing Examiner

TRANSMITTED this 25th day of February, 2021, to the following:

APPLICANT:
Shelton School District Number 309
Attn: Robert Herron
700 South First Street
Shelton, WA 98584

AGENT:
AHBL
Attn: Lisa Klein
2215 North 30th Street, Suite #200
Tacoma, WA 98403

OTHERS:

Jeff Feeney
4008-42nd Street N.E.
Tacoma, WA 98422

Robert Herron
101 Sargison Loop
Shelton, WA

CITY OF SHELTON

CASE NO.: SHELTON HIGH SCHOOL MODERNIZATION AND EXPANSION PROGRAM FOR THE ADDITION OF A VOCATIONAL ACADEMY BUILDING
Site Plan Review Permit (SPR 03-20) and Special Use Permit (SUP 01-20)

NOTICE

RECONSIDERATION:

Any interested person may file a written request for reconsideration within ten days of the date of the examiner's decision or recommendation by filing a fee as adopted by resolution with the department of community development. The request shall explicitly set forth alleged errors of procedure or fact. The examiner shall act within ten days after the date of the filing of request for reconsideration by either denying the request, issuing a revised recommendation or decision or calling for an additional public hearing. If an additional hearing is called for, notice of said hearing shall be mailed to all parties of record not less than seven days prior to the prior to the hearing date, and any final decision shall be stayed in accordance with the requirements set forth in Section 2.36.190 of the Shelton Municipal Code.

This Decision Constitutes a Recommendation to the City Commissioners.

2.36.170(C)(1):
This decision constitutes a recommendation to the city commission together with the date, time and place for city commission consideration thereof and the deadline for submitting written comments to the city commission thereon as provided in Section 2.36.210.

2.36.210 Appeal-City commission consideration.
An examiner's decision which constitutes a recommendation or final decision which has been timely appealed pursuant to Section 2.36.100 shall come on for city commission consideration in open public meeting no sooner than ten nor longer than twenty working days from the date of the decision or recommendation. The city commission shall consider the matter based upon the written record before the examiner, the examiner's decision, the written appeal, if any, and any written comments received by the city commission before closure of the commission office on the next to last working day prior to the date set for the commission's consideration; provided, that the commission may publicly request additional information of the applicant, the examiner, city or other interested parties.

NOTE: In an effort to avoid confusion at the time of filing a request for reconsideration, please attach this page to the request for reconsideration.

Attachment 1

Applicants Written Statement

November 2, 2020

Mr. Jason Dose
City of Shelton
525 West Cota Street
Shelton, WA 98584
jason@ci.shelton.wa.us

Project: Shelton High School MET Academy and Parking Improvements, AHBL No. 2200539.30
Subject: Application for Special Use Permit and Site Plan Review

Dear Jason:

Thank you for your assistance to our team as we have worked to complete the submittal requirements for a Special Use Permit (SUP) for the Shelton High School MET Academy project. This letter will provide a narrative summary of the project and outline compliance with the Comprehensive Plan, the Medical/Educational (ME) Zoning district, the SUP approval standards, reviews for impacts to the airport including added performance standards addressing potential noise impacts, and other standards and requirements, as noted. Enclosed with this letter are the application materials listed on the attached transmittal letter and the City submittal checklist.

Project Description

The Shelton School District will be improving the Shelton High School campus through a modernization and expansion project that will add a Manufacturing, Engineering, and Technology Academy (MET) that prepares students for careers that require skills in areas such as construction, welding, auto repair, electronics, mechatronics, engineering and CAD as well as others. The proposal consists of adding a 15,000 SF classroom addition and two 1,250 SF portables that will be constructed in phases. The proposal does not add to student capacity or enrollment but provides new program offerings.

Phase 1 of the proposal includes a new 3,400 SF metal frame classroom building including a core/shop, restrooms and small mechanical platform. This phase will also include construction of a 10' concrete walkway around the building, three bioretention cells and a new infiltration trench for the proposed building's roof runoff. Three existing portables will be removed, a portion of the existing gravel access road paved, some utilities relocated, and the existing staff parking lot will be re-striped. Approximately 34,000 SF of asphalt parking area, 850 SF of vertical curbs, 3,100 SF of concrete walkways and 15,000 SF of landscaping will be added. The asphalt on the western side of the proposed MET Academy building will be removed and replaced with grass lawn until Phase 2A. In this portion of the school campus there are currently 99 parking spaces, the Phase 1 proposal will result in 95 parking spaces (reduction of four parking spaces). Overall, the school campus exceeds the City's required minimum parking.

Phase 2A will add a 5,800 SF building attached westerly of the MET Academy building and in line with Building 300 to the south, replacing the lawn that was installed during Phase 1. This portion of the building will contain classrooms associated with the welding and mechanical trades.

TACOMA
2215 North 30th Street
Suite 300
Tacoma, WA 98403-3350
253.383.2422 TEL
www.ahbl.com

Phase 2B will consist of replacing two portables removed during Phase 1 (portables 3 and 4) with two new portables totaling 3,500 SF. They will be located in what is currently a grass courtyard south of the Phase 1 addition. The Portables will have a separate stormwater infiltration trench.

Phase 3 will construct a 5,800 SF building addition located easterly of the MET Academy building and will contain wood shop and covered work area. The infiltration trench constructed in Phase 1 will be expanded during each phase to accommodate the new building area from Phases 2A and 3. All stormwater runoff will be fully infiltrated.

Project Statistics

- Site Area: 1,604,048 SF
- Gross Floor Area of Existing Buildings, Including Portables: 260,028 SF
- Total Gross Floor Area of Existing Buildings and New Buildings (less removed portables): 278,528 SF
- Existing Building Coverage (maximum allowed is 35%): 260,028 SF or 16.2%
- Proposed Building Coverage: 278,528 SF or 17.4%
- Existing Lot/Development Coverage (maximum allowed is 65%): 879,036 SF or 54.8%
- Proposed Lot/Development Coverage: 873,290 SF or 54.4%
- Total Impervious Area During Phases:
  - 15,046 SF to be removed during phase 1
  - 5,800 SF to be added during phase 2A
  - 3,500 SF to be added during phase 2B
  - 0 SF to be added during phase 3
- Existing landscape area: 725,060 SF
- Proposed landscape area: 731,662 SF
- Total Parking Required per SMC 20.40.100 (1 per employee plus 1 per 5 non-bussed students):
  - Number of Employees Anticipated: 150
  - Number of Non-Bussed Students: 220
  - Minimum number of required stalls: 194
  - Total existing parking stalls: 409 stalls (99 at staff lot, 30 visitor spots, 265 at main lot and 15 at mini dome).
  - Total proposed parking stalls: 405 (95 at staff lot, 30 visitor spots, 265 at main lot and 15 at mini dome).
  - If 1 stall is required per employee and there are 150 employees, there are 258 stalls available for the non-bussed students. At a ratio of 1 stall per 5 non-bussed students, there is adequate parking for a total of 1,290 non-bussed students; therefore, the school has more than adequate parking capacity.

Project Elements and Features Overview

Existing Uses and Location: The school is currently located at 3737 N Shelton Springs Rd in the city of Shelton. The property comprises 36.73 acres.

The site is located in the ME zoning district, which allows schools outright, but also in the Airport Overlay Zones 3 and 6, which require a Special Use Permit.

Currently, several buildings are located on the site, most of which were constructed in the 1970s. The campus includes a counseling center, resource center, technical center, fieldhouse/pool, classitorium/ music center, and a student center, as well as separate buildings containing classrooms for business, social studies, English/languages, home economics/math, and science. Many of the buildings are connected with covered walkways. There are also several portable buildings on the site.

Site vegetation includes the grass fields for baseball and softball fields, and small trees and bushes located throughout the landscaping areas. The recreation facilities include a gymnasium, football field, running track, baseball field, and tennis courts.

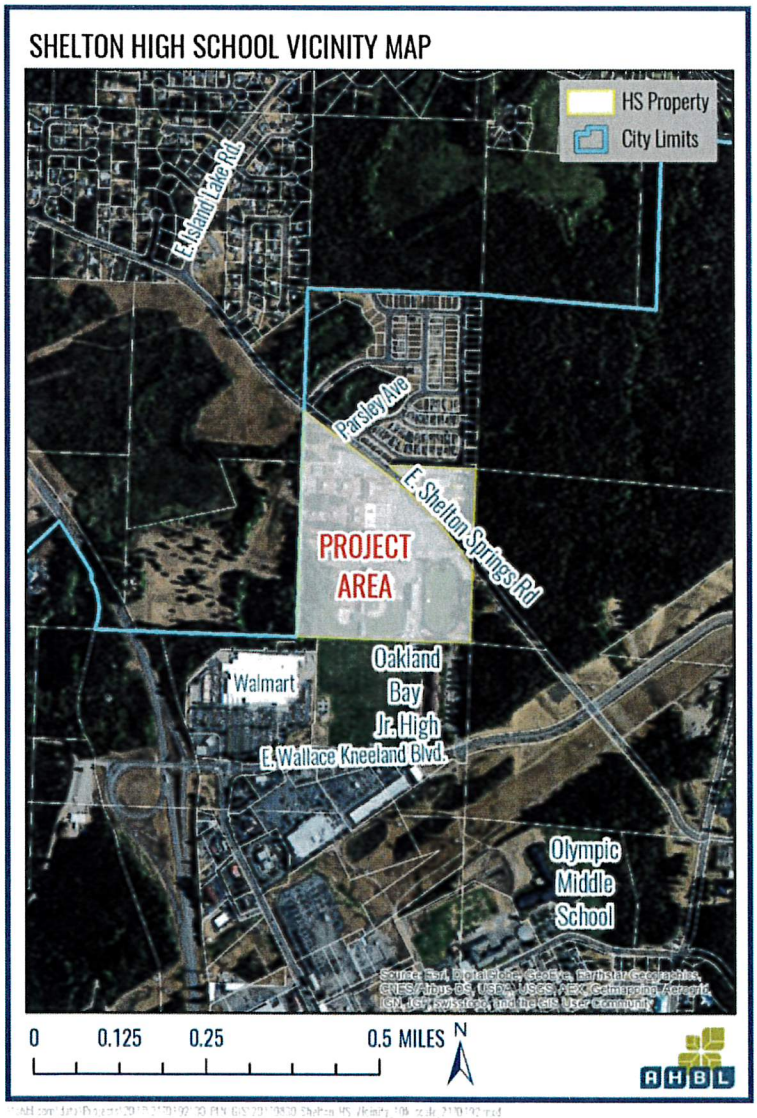


Figure 1 - Vicinity Map

Surrounding land uses include:

- Residential (to the north and northeast, across from E Shelton Springs Rd).
- Educational (the School District's Oak Bay Junior High School is immediately south)
- Commercial (to the southwest)
- Undeveloped lands in the remaining areas

The school is proximate to the Port of Shelton Sanderson Field facility and airport. The MET Academy buildings are situated in Airport Overlay Zone 6, whereas the parking lot improvements are located in Zone 3.

Access: Current access to the site is provided via three driveway entrances from N Shelton Springs Rd. Shelton Springs Rd is classified by the City as a major collector. No modifications are planned to these driveways or to student or bus access. The staff parking lot is being reconfigured, but the access point of off E. Shelton Springs Road will not change location.

Stormwater: Roof runoff will be collected in gutter and conveyed through downspouts to a sub-surface infiltration gallery to be fully infiltrated. Runoff from the new parking area will sheet flow to bioretention facility for treatment and full infiltration. The existing staff parking lot will continue to sheet flow to the existing retention pond located in the northwest corner of the project. All stormwater runoff onsite will be fully infiltrated.

Pedestrian Circulation: The campus features a system of covered pedestrian paths and amenities for internal circulation. Under the new project, an additional 3,000 SF of concrete, pedestrian walkways will be added around the building and connecting to the parking lot and campus.

Environmental Information: The Shelton School District is the SEPA Lead Agency for the project and will issue an initial SEPA Environmental Checklist for consultation on November 5, 2020 with a comment period that will expire November 19, 2020. We anticipate issuing a SEPA DNS following receipt of the first round of comments from the City.

Grading: All grading work will be consistent with applicable City of Shelton regulations and would not be anticipated to result in significant adverse impacts. The majority of earthwork will consist of building pad preparation and excavation work associated with the parking lot realignment. Roughly 1,550 cubic yards of cut and 1,500 cubic yards of fill is anticipated.

Building Height: The MET Academy building will be approximately 27 feet in height, which is less than the code maximum height.

Landscaping: Landscaping is proposed to be provided throughout the parking areas, adjacent to the new building, and adjacent to the public right-of-way (the current landscaping adjacent to the staff parking area will remain as is). Landscaping will be provided between the portables that are remaining and the next building to the east and parking area to the west. The asphalt on the western side of the proposed MET Academy building will be removed and replaced with grass lawn until Phase 2A.

Criteria for SUP Approval

Shelton Municipal Code Chapter 20.46 describes Special Use Permits (SUPs). Special uses possess characteristics of such unique and special form as to make impractical their being included automatically in any of the City zoning districts. The City requires the location and operation of special uses to be subject to a recommendation of the hearing examiner and final approval by the City commission. The purpose of the review is to determine that the characteristics shall not be incompatible with the type of uses permitted in surrounded areas and for stipulating conditions to ensure compatibility.

SMC 20.46.070 provides the standards for granting SUPs. Listed below is each of the standards, followed by our response.

A. The use requested by the special use permit shall be within the intent of this title, the comprehensive plan, and the public interest.

Response: The use is consistent the Title 20 (Zoning), the comprehensive plan, and the public interest as follows:

Consistency with Title 20

Title 20 is the City Zoning Code, which includes descriptions of the ME district (SMC 20.22), provides requirements for parking and signage, and the procedures for SUPs and Site Plan Review. Public schools are permitted outright in the ME district; however, a SUP is required due to its location in the Airport Overlay Zone. The proposal meets the Zoning Code bulk regulations and parking and landscaping requirements and is therefore consistent with the Title's intent. This application is provided in accordance with the requirements described in SMC 20.46 for SUPs and will undergo concurrent Site Plan Review.

Consistency with Comprehensive Plan

The 2017 City of Shelton Comprehensive Plan describes the ME designated areas as being intended for public and private educational institutions. The district is intended to provide high levels of pedestrian and transit-oriented service and a safe, pleasant environment for education. Campus style development is encouraged. Shelton High School is a campus, in that it is co-located with the adjacent Oakland Bay Junior High School and shares bus circulation and special event parking. Pedestrian services are provided by the sidewalks located along Shelton Springs Road.

The proposed MET academy building and parking lot are consistent with the following goals and policies of the City Comprehensive Plan:

- LU2. Assure that adequate urban services are available to all new development.
- LU3. Assure that land use policies and patterns adequately protect and preserve resource lands, critical areas, water supplies, water bodies, and other areas of cultural or historical significance.
- LU16. Concentrate medical and education facilities in the Medical/ Educational district.
- LU16a. New medical and educational facilities should be directed to the Medical/ Educational district.
- LU17. Strategically designate land suitable for new school facilities within areas where new residential neighborhood creation is desired.
- LU17a. The City shall work with school district planners to identify opportunities for providing land for new school facility development within areas targeted for future neighborhood development.

- CF1a. 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.

Consistent with the Public Interest

As a public educational facility, the Shelton High School facilities are, by nature, in the public interest. The new MET Academy building creates opportunities for School District students by providing academic areas for woodshop, welding and mechanical learning. The public interest is further served by improving the onsite staff parking circulation to improve the current congestion that occurs.

B. The use requested by the special use permit shall demonstrate that it is consistent with any performance standards applicable to the district in which it is to be placed.

Response: The use is consistent with the required performance standards listed in Table 20.06.030 and provided in the ME zoning district (SMC Chapter 20.22) as follows:

Table 1 – Compliance with Performance Standards

Performance Standard	City Requirement	Shelton High School New MET Academy Building and Staff Parking Lot
Minimum Lot Size	None	n/a
Front Yard, minimum	None	n/a
Side Yard	5 feet	Exceeds
Side Yard on ROW	10 feet	n/a
Rear Yard	10 feet	Exceeds
Building Ground Floor, maximum	n/a	n/a
Building Size, maximum	n/a	n/a
Building Height	35 feet	27 ft - height for MET Academy building
Building Coverage	35%	17.4% (complies)
Development Coverage	65%	46.1% (complies)
Outside Storage	N	None proposed

Total Parking Required per SMC 20.40.100 (1 per employee plus 1 per 5 non-bussed students):

- Number of Employees Anticipated: 150
- Number of Non-Bussed Students: 220
- Minimum number of required stalls: 194
- Total existing parking stalls: 409 stalls (99 at staff lot, 30 visitor spots, 265 at main lot and 15 at mini dome).
- Total proposed parking stalls: 408 (98 at staff lot, 30 visitor spots, 265 at main lot and 15 at mini dome).
- If 1 stall is required per employee and there are 150 employees, there are 258 stalls available for the non-bussed students. At a ratio of 1 stall per 5 non-bussed students, there is adequate parking for a total of 1,290 non-bussed students; therefore, the school has more than adequate parking capacity.

Landscaping is proposed throughout and along the perimeter of the staff parking lot. No new landscaping is proposed in areas that would impact vision clearances.

C. The use requested by the special use permit shall be made on the basis of site plans submitted pursuant to Section 20.46.040(D). If the improvements are to be made over a period greater than two years, the time of improvements shall be indicated.

Response: The first phase will begin construction in the Spring of 2021. The timing of subsequent phases is dependent on funding, but likely will occur within five years.

Airport Overlay Zone (SMC 20.70) Regulations

Public schools are listed as "special function land uses" in SMC 20.70.040. Special function land use is defined as "land use for which the significant common element is the relative inability of the people occupying the space to move out of harm's way; this includes schools (K-12), hospitals, nursing homes, daycare centers, and other similar uses involving occupants that require personal assistance in vacating the premises."

SMC 20.70.050 describes the Airport Overlay Zones. Shelton High School is located partially in Zone 3-Airport Compatibility Overlay Zone and partially in Zone 6-Traffic Pattern Zone (TPZ), as shown in Figure 2, below. The parking lot is within both zones. The three portables being removed are in Zone 3. The new MET Academy building (all phases) is located in Zone 6. Expansion of existing uses in Zone 6 are allowed, following review for impacts to the airport through the SUP provisions of Chapter 20.46, with added performance standards addressing potential noise impacts.

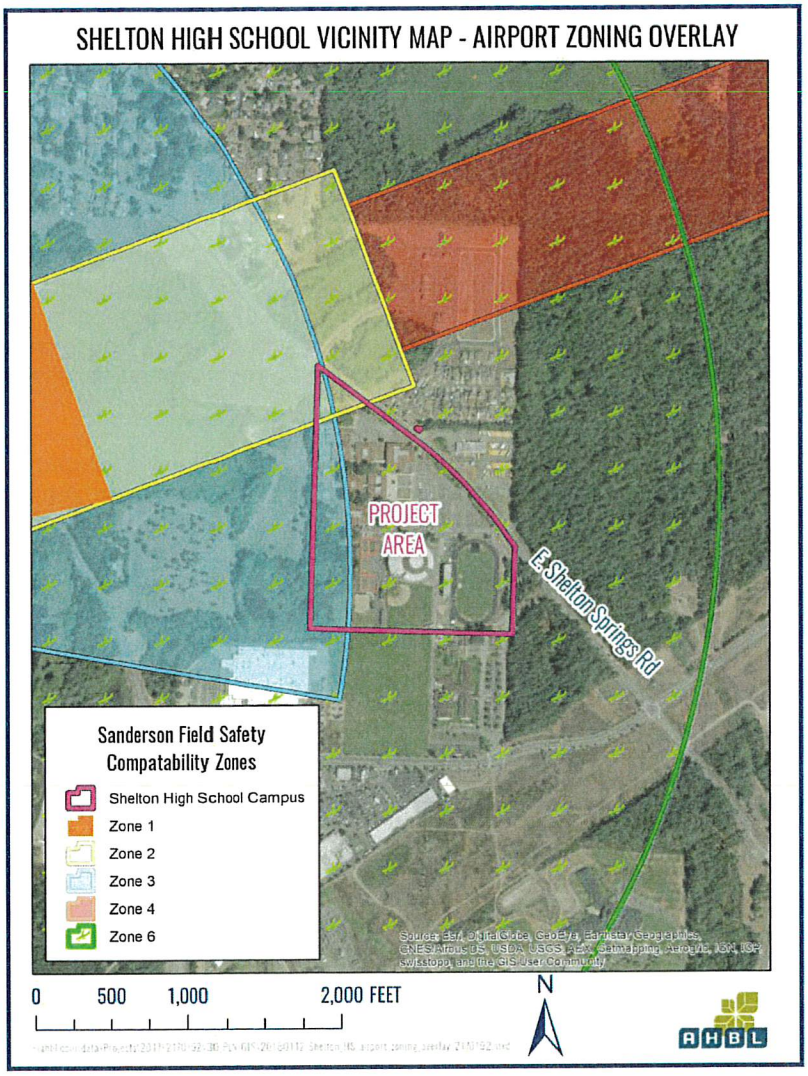


Figure 2 - Airport Zoning Overlay

The property is also located in the Airport Protection Areas' "horizontal surface area," as shown below in Figure 3, in "plan view." Figure 4 provides a depiction of the horizontal, conical, and transition surfaces in "isometric view," consistent with FAR Part 77.

The closest (or nearest) point on the Shelton High School campus parcel is located over 3,000 feet from the end of the Sanderson Field runway (Primary Surface). According to the enclosed Holman & Associates Survey, the elevation of the runway is 273 feet (Vertical DATUM NAVD 1988).

Shelton High School is located over 3,000 feet east of the east end of the Sanderson Field runway. The runway approach surface at the high school property is at elevation 334.54 feet (NAV88, at the point of reference on Holman Survey).

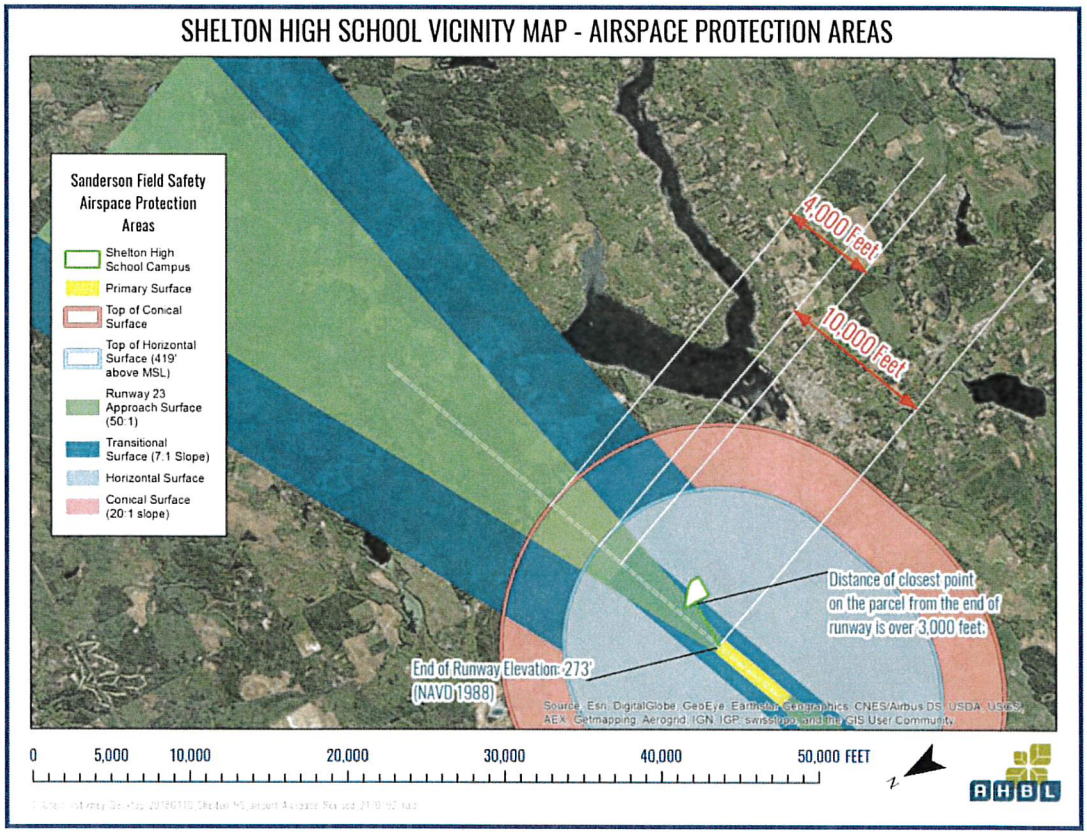


Figure 3 - Airspace Protection Areas

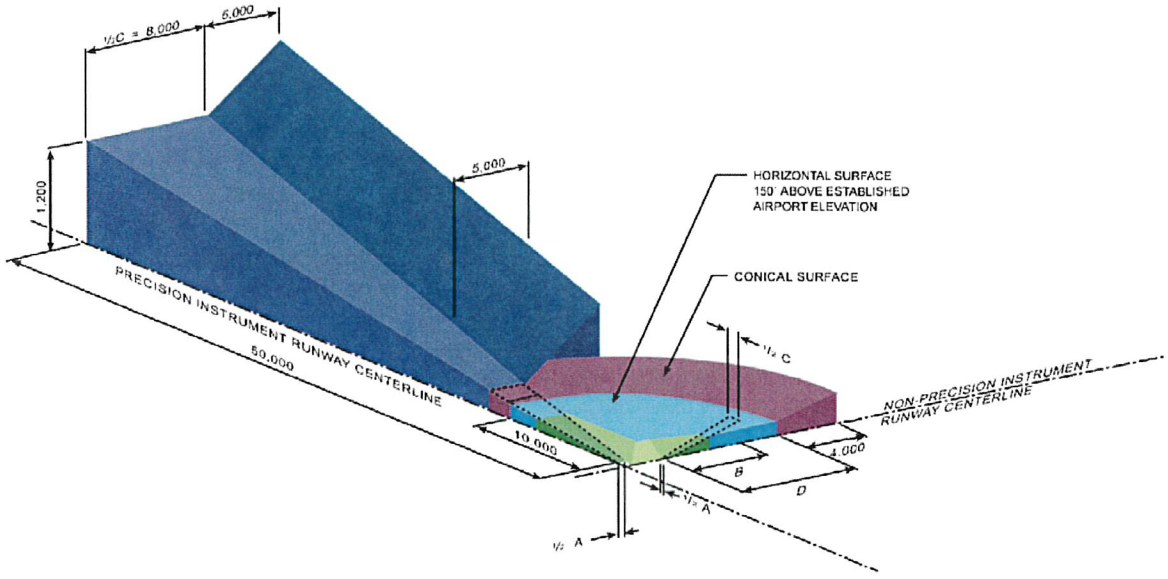


Figure 4 - FAR PART 77 Diagram (Source: Sanderson Field Master Plan, Figure 4-4)

At the closest point on the parcel, the 1:7 slope surface would be at a *minimum* elevation of 701 feet (we calculated this by adding 428 feet to the runway elevation):

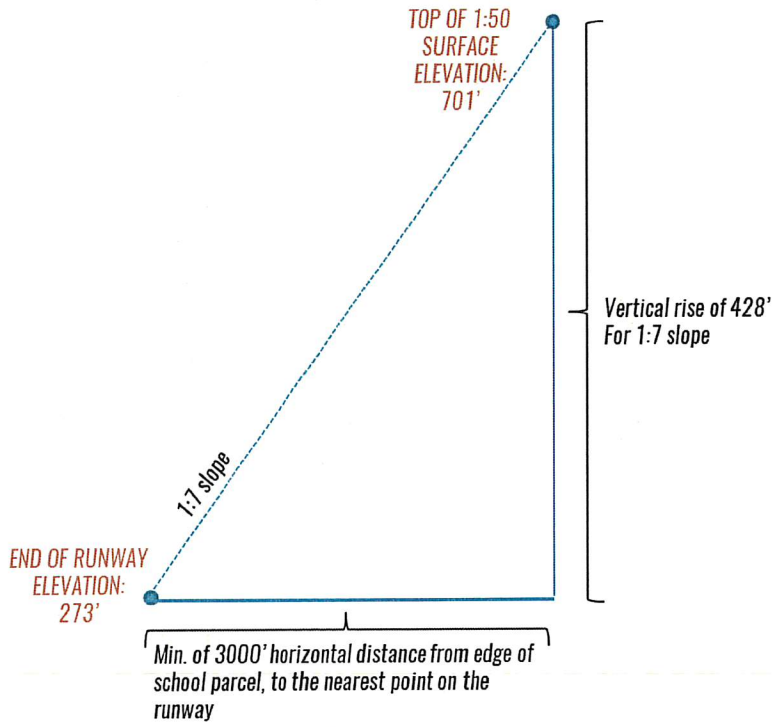


Figure 5 - 1:7 Slope Surface Elevation Calculation

At the closest point on the parcel, the 1:50 slope surface would be at a *minimum* elevation of 333 feet (we calculated this by adding 60 feet to the runway elevation):

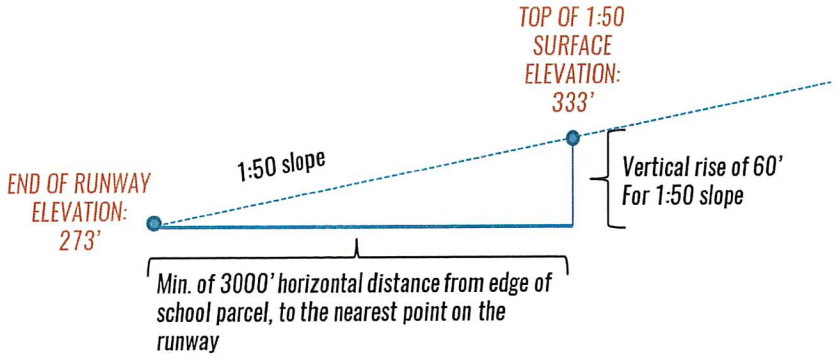


Figure 6- 1:50 Slope Surface Elevation Calculation

Both slope surfaces continue to **increase** in elevation, to their points at other locations on the campus.

The highest point (roof peak) of the newly constructed classroom building is at an elevation of approximately 284 feet, which is well below the slope surfaces. The existing mini-dome building elevation is also estimated to be at 284 feet and there are numerous tall trees exceeding these heights on the property. Therefore, the proposed MET Academy building is lower in height than other property features and none of the existing or proposed building heights on the campus exceed the surface elevations for the airspace protection areas.

The Shelton School District built Shelton High School in the 1970s, and it has been continuously used since that time. It is important that the expansion of the high school offerings be allowed, for the public interest. In general, it appears that the intent of the City's airspace regulations is to limit the concentrations of people or students from occupying spaces near the airport. The project aims to improve the use of the school and meet the City's intent by removing three portables from the northern portion of the site (located within the Zone 3-Airport Compatibility Overlay Zone) to new buildings and facilities further east (located in Zone 6). Therefore, the project advances and satisfies the following purposes and intents of SMC 20.70.020:

- To minimize the public's exposure to excessive noise and safety hazards that would result from incompatible land use development around Sanderson Field.
- To protect Sanderson Field from potential encroachment by land uses that are incompatible with airport activities and that may impair the planned development and use of the airport.
- Implement policies of the City of Shelton's Comprehensive Plan and the Port of Shelton, Sanderson Field Airport Master Plan.

Thank you for your assistance on this important project. We look forward to working with you throughout the review and approval process.

Sincerely,

Lisa Klein, AICP
Associate Principal

LK/NS/EA

c: Robert Herron, SSD Director of Facilities Management and Construction
David Brown, PE

Attachment 2

SEPA Documents

Determination of Nonsignificance

SEPA Checklist

Notice of SEPA Consultation

Shelton School District
Strong Schools Strong Community

SEPA DETERMINATION OF NONSIGNIFICANCE (DNS)

Shelton High School MET Academy and Parking Improvements

DESCRIPTION OF PROPOSAL: The Shelton School District will be improving the Shelton High School campus through a modernization and expansion project that will add a Manufacturing, Engineering, and Technology (MET) Academy. The proposal consists of adding a 15,000 SF classroom addition and two 1,750 SF portables that will be constructed in phases. The "net new" building area after the new construction and portable removal will be 15,000 SF. The proposal does not add to student capacity or enrollment.

Phase 1 of the proposal includes a new 3,400 SF metal frame classroom building including a core/shop, restrooms and small mechanical platform. This phase will also include construction of a 10' concrete walkway around the building, three bioretention cells and a new infiltration trench for the proposed building's roof runoff. Three existing portables will be removed, a portion of the existing gravel access road paved, some utilities relocated, and the existing staff parking lot will be re-striped. Approximately 34,000 SF of asphalt parking area, 850 SF of vertical curbs, 3,100 SF of concrete walkways and 15,000 SF of landscaping will be added. The asphalt on the western side of the proposed MET Academy building will be removed and replaced with grass lawn until Phase 2A. In this portion of the school campus there are currently 99 parking spaces, the Phase 1 proposal will result in 95 parking spaces (reduction of four parking spaces).

Phase 2A will add 5,800 SF of building located westerly of the MET Academy building, in line with Building 300 to the south, replacing the lawn that was installed during Phase 2A. This portion of the building will contain classrooms associated with Welding and Mechanical trades.

Phase 2B will consist of replacing Portable 3 and 4 in the existing grass courtyard south of the Phase 1 addition. The Portables will be similar to the existing portables with 1,250 SF footprint each. The Portables will have a separate stormwater infiltration trench.

Phase 3 will construct a 5,800 SF building addition located easterly of the MET Academy building and will contain wood shop and covered work area. The infiltration trench constructed in Phase 1 will be expanded during each phase to accommodate the new building area from Phases 2A and 3. All stormwater runoff will be fully infiltrated.

LOCATION OF PROPOSAL: The project site consists of the Shelton High School and surrounding grounds, located at 3737 N Shelton Springs Rd in the City of Shelton, Washington (Mason County). The tax parcel number is 42012-41-60000. The site is approximately 42.5 acres. The property is located in Section 12, Township 20 North, Range 4 West of the W. M. in Mason County, Washington.

PROPONENT AND LEAD AGENCY: Shelton School District No. 309

RESPONSIBLE OFFICIAL: Robert Herron, Director of Facilities Mgmt & Construction
Shelton School District No. 309
700 South 1st Street
Shelton, WA 98584
360-426-6322

The Responsible Official for the Shelton School District hereby makes the following findings and conclusions based on a review of the environmental checklist and attachments (SEPA Checklist); other information on file with the District and City of Shelton; the agency comments received, and the policies designated by the Shelton School District as a basis for the exercise of substantive authority under the Washington State Environmental Policy Act (SEPA) pursuant to RCW 43.21C.060.

FINDINGS OF FACT

A SEPA Notice of Consultation was published on November 5, 2020 with a 21-day comment period. One comment was received from Olympic Region Clean Air Agency (ORCAA) regarding demolition procedures. The comment has been considered and incorporated into the SEPA Findings where appropriate.

Earth – The site is flat and consists of Vashon Outwash with 7-9-foot-deep groundwater. A small amount of earthwork (approximately 50 CY net) is proposed. Currently the site is approximately 54.8% impervious surface and will be approximately 54.4% after project completion. A Temporary Erosion Control Plan (TESC) will be prepared, which will include maintenance of adequate ground cover, construction stormwater flow control measures, silt fencing, perimeter runoff protection, and temporary sedimentation controls.

Water Runoff – Mason County GIS identifies a small wetland in the southwest corner of the parcel in the middle of the existing trees. No work will occur over, in, or within 200 feet of the identified wetland. In existing conditions, stormwater sheet flows to an existing retention facility where fully infiltrated into the groundwater. In proposed conditions, stormwater will be infiltrated in proposed sub-surface infiltration galleries, bioretention facilities and the existing retention pond.

Noise –The project will generate short-term noise during the construction and demolition period. Noise levels will not exceed the maximum permissible noise levels allowed under SMC 9.18. Measures to limit construction noise would be consistent with the City of Shelton regulations. There is an airport (Sanderson Field) located near the school (less than 1 mile to the runway). Additional noise sources in the project vicinity include traffic and noise typical of suburban residential development. There will be no increase in noise on a long-term basis beyond what is occurring at the present time.

Land Use – The site contains the existing Shelton High School (the school is comprised of several buildings constructed in or since 1974) and the described additions and modernization will not impact adjacent properties. The property is zoned as Medical/Educational (ME) and designated as Medical/Education in the Shelton Comprehensive Plan. The completed project will not increase or displace any staff or students.

Aesthetics – The proposed building height is approximately 27 feet. Exterior materials will be compatible with what exists on site and will consist of vertical metal siding (12" flat panel) and aluminum storefronts. The proposal will not increase light or glare from the current conditions.

Light and Glare - The classroom building addition will include new building lighting for nighttime security. New light fixtures will be downcast and shielded to control light and glare.

Historic and Cultural Preservation - The site does not contain any known places or objects listed on, or proposed for, national, state, or local preservation registers.

Transportation – Current access to the site is provided via three driveway entrances from N Shelton Springs Road. The proposal will maintain the existing driveways and will not require any improvements to existing transportation facilities. The current number of vehicular trips per day will not change. The current parking for the site is 409 stalls, the proposed total parking is 405 for an overall decrease of four parking

stalls. There are no transportation impacts as there are no new vehicular trips anticipated with the proposal. Traffic impact fees may be required to be paid at the time of building permit. The fees are to be determined.

Services – The project is not intended to increase the need for public services such as fire and police protection. The site will continue to be served by City of Shelton for water and sewer and by Mason County PUD No. 3 for electricity.

CONCLUSION OF THE RESPONSIBLE OFFICIAL

Shelton School District has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in applicable local, state, or federal laws or rules, as provided by WAC 197-11-158. The Shelton School District has determined that this project does not have a probable significant adverse impact on the environment and an Environmental Impact Statement is not required under RCW 43.21c.030(2). This decision was made after review of a completed environmental checklist, other information on file with the Shelton School District, and existing regulations. The responsible official finds this information reasonably sufficient to evaluate the environmental impacts of this proposal.

This Determination of Nonsignificance (DNS) is issued under the *Washington Administrative Code* (WAC) 197-11-340. Public comments on this DNS are accepted until the close of the 14-day comment period, which is **December 31, 2020**. Copies of the files used to complete the DNS are available for review at the District. There is no agency appeal of this DNS. Appeals are governed by RCW 43.21C.075.

SEPA Responsible Official Signature: _____ 12/11/2020

Robert Herron
Shelton School District No. 309

Date

Issue Date: December 17, 2020 / End of Public Comment: December 31, 2020

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

   Shelton High School MET Academy and Parking Improvements

2. Name of applicant:

   Shelton School District No. 309

3. Address and phone number of applicant and contact person:

   Applicant:
   Robert Herron, Director of Facilities Management and Construction
   Shelton School District
   700 1st St, Shelton, WA 98584
   Phone: (60) 426-1687

   Contact:
   Lisa Klein, AICP
   AHBL, Inc.
   2215 N 30th St, Tacoma, WA 98402
   Phone: (253) 383-2422

4. Date checklist prepared:

   November 2, 2020

5. Agency requesting checklist:

   Shelton School District

6. Proposed timing or schedule (including phasing, if applicable):

   The first phase will begin construction in the Spring of 2021. The timing of subsequent phases is dependent on funding, but likely will occur within five years.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   No, there are no plans for future additions, expansions or further activities related to this proposal.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Has been prepared:

- ***Site Plan including topographic map, drainage and utility plans and airport overlay, prepared by Huitt-Zollars, Inc, dated October 2020***
- ***Landscape Plans, prepared by Huitt-Zollars, Inc, dated November 2020***
- ***Architectural Building Elevations, prepared by NAC Architecture, dated October 2020***

To be prepared:

- ***Geotechnical Engineering Report***
- ***Hydrologic Engineering Report***
- ***Temporary erosion and sediment control (TESC)***

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

There are no known applications pending or government approvals affecting the subject property.

10. List any government approvals or permits that will be needed for your proposal, if known.

City of Shelton:

- ***Demolition Permit***
- ***Site Plan Review***
- ***Special Use Permit***
- ***Fill and Grade Permit***
- ***Site Development Permit***
- ***Building Permit***
- ***Fire Protection Permit***
- ***Plumbing and Mechanical Permit***

Dept. of Ecology:

- ***National Pollutant Discharge Elimination System (NPDES) Permit***

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Shelton School District will be improving the Shelton High School campus through a modernization and expansion project that will add a Manufacturing, Engineering, and Technology Academy (MET) that prepares students for careers that require skills in areas such as construction, welding, auto repair, electronics, mechatronics, engineering and

CAD as well as others. The proposal consists of adding a 15,000 SF classroom addition and two 1,250 SF portables that will be constructed in phases. The proposal does not add to student capacity or enrollment but provides new program offerings.

Phase 1 of the proposal includes a new 3,400 SF metal frame classroom building including a core/shop, restrooms and small mechanical platform. This phase will also include construction of a 10' concrete walkway around the building, three bioretention cells and a new infiltration trench for the proposed building's roof runoff. Three existing portables will be removed, a portion of the existing gravel access road paved, some utilities relocated, and the existing staff parking lot will be re-striped. Approximately 34,000 SF of asphalt parking area, 850 SF of vertical curbs, 3,100 SF of concrete walkways and 15,000 SF of landscaping will be added. The asphalt on the western side of the proposed MET Academy building will be removed and replaced with grass lawn until Phase 2A. In this portion of the school campus there are currently 99 parking spaces, the Phase 1 proposal will result in 95 parking spaces (reduction of four parking spaces). Overall, the school campus exceeds the City's required minimum parking.

Phase 2A will add a 5,800 SF building attached westerly of the MET Academy building and in line with Building 300 to the south, replacing the lawn that was installed during Phase 1. This portion of the building will contain classrooms associated with the welding and mechanical trades.

Phase 2B will consist of replacing two portables removed during Phase 1 (portables 3 and 4) with two new portables totaling 3,500 SF. They will be located in what is currently a grass courtyard south of the Phase 1 addition. The Portables will have a separate stormwater infiltration trench.

Phase 3 will construct a 5,800 SF building addition located easterly of the MET Academy building and will contain wood shop and covered work area. The infiltration trench constructed in Phase 1 will be expanded during each phase to accommodate the new building area from Phases 2A and 3. All stormwater runoff will be fully infiltrated.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The street address for the site is 3737 N. Shelton Springs Rd., Shelton, WA 98584.

Tax Parcel Number ***Abbreviated Legal Description***

B. Environmental Elements

1. *Earth*

a. General description of the site:

(circle one): (Flat), rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)?

Topography at the project site is relatively flat with slopes less than 5%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any

agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Based on the previous geotechnical report provided by GeoEngineers, the subsurface soils are mainly Vashon Outwash with 7-9 foot deep groundwater (in April, 2017); however GeoEngineers considered the soils to be well draining for the purpose of infiltration.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No, there is no history of unstable soil in the immediate vicinity of the site.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The volume of grading includes approximately 450 cubic yards of cut and 400 cubic yards of fill for a net of 50 cubic yards of cut.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Temporary erosion could occur during construction activities associated with grading, filling, and excavating. The site development permit will include a Temporary Erosion Control Plan that will include construction procedures and best management practices.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 54.4% of the site will be covered with impervious surfaces at the completion of the proposal.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Temporary erosion and sediment control (TESC) best management practices will be employed during construction activities to ensure that earthwork is not deposited on county streets or allowed to flow into stormwater conveyance facilities. The TESC plan will be prepared in accordance with the requirements of the City's adopted stormwater manual.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Construction activities have the potential to create temporary dust emissions during

earth-moving activities and exhaust emissions due to the combustion of gasoline and diesel fuels. Dust and exhaust emissions are expected to be minimal, localized, and temporary. After construction, emissions will be generated by vehicles accessing the site.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No off-site sources of emissions or odor will affect the proposal as they are minor. In the vicinity of the project site, vehicles associated with nearby single-family homes using the surrounding public rights-of-way, are the primary sources of air pollution. The site is also proximate to the Port of Shelton Sanderson Field facility, which includes an airport and light industrial / manufacturing park, which generates emissions associated with vehicles and airplanes.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

During construction potential BMPs include using water sprays or other non-toxic dust control methods on unpaved roadways, minimizing vehicle speeds on unpaved surfaces and preventing the tracking of mud onto public streets. Work may also be minimized during high winds. Vehicular emissions are regulated by two agencies: the US Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology). Proposed construction of the project will be in accordance with agency regulations. Vehicles will be turned off when not in use.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Mason County GIS identifies a small wetland in the southwest corner of the parcel in the middle of existing trees, which is not located near the proposed improvements.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No work will occur over, in, or within 200 feet of the identified wetland.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill or dredge material will be placed in or removed from the wetland.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Surface waters will not be withdrawn or diverted as a result of this proposal.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

According to FEMA Firm Panel 53045C0605E, effective 6/20/2019 the property does not lie within a 100-year floodplain.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No waste materials will be discharged to surface waters as a result of the proposal.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

Not applicable - the site is served by city water.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste material is proposed to be discharged into the ground from septic tanks or other sources as part of the Project.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Roof runoff will be collected in gutter and conveyed through downspouts to a sub-surface infiltration gallery to be fully infiltrated. Runoff from the new parking area will sheet flow to bioretention facility for treatment and full infiltration. The existing staff parking lot will continue to sheet flow to the existing retention pond located in the northwest corner of the project. All stormwater runoff onsite will be fully infiltrated.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No waste materials are anticipated to enter ground or surface waters.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

The proposal is not expected to affect drainage patterns in the vicinity of the proposal site.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

In existing conditions, stormwater sheet flows to an existing retention facility where fully infiltrated into the groundwater. In proposed conditions, stormwater will be infiltrated in proposed sub-surface infiltration galleries, bioretention facilities and the existing retention pond.

4. Plants

a. Check the types of vegetation found on the site:

____deciduous tree: alder, maple, aspen, other
____evergreen tree: fir, cedar, pine, other
____shrubs
____grass
____pasture
____crop or grain
____ Orchards, vineyards or other permanent crops.
____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
____water plants: water lily, eelgrass, milfoil, other
____other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

The existing trees, shrubs, and grass within the proposed development footprint will be removed in preparation for construction and earthwork activities.

c. List threatened and endangered species known to be on or near the site.

The WA Department of Fish and Wildlife Priority Habitat Species mapping does not identify any threatened or endangered species on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

New landscaping/ plantings are proposed along the property perimeter, around the new building, and in the parking lots. The site will be landscaped in accordance with the City

of Shelton code requirements.

A temporary lawn will be installed to the west of the proposed MET Academy building during Phase 1 of the project, which will be removed when the building is expanded.

e. List all noxious weeds and invasive species known to be on or near the site.

No noxious weeds or invasive species are known to be located on or near the site.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: hawk, heron, eagle, songbirds, other: **small birds**
mammals: deer, bear, elk, beaver, other: **small mammals**
fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.

According to the Department of Fish and Wildlife Priority Habitat Species mapping, there are no known threatened or endangered species on or hear the site.

c. Is the site part of a migration route? If so, explain.

The Puget Sound region is part of the Pacific flyway, a bird migration route.

d. Proposed measures to preserve or enhance wildlife, if any:

There are no impacts and therefore no mitigation measures are proposed.

e. List any invasive animal species known to be on or near the site.

No invasive species are known to be located on or near the site.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

There is electrical service to the existing school, from Mason County PUD #3. Natural gas is currently used on site. The new buildings will expend energy (electricity and natural gas) for construction, lighting, ventilation, heating, air conditioning, and associated mechanical systems.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The project will not affect the use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Construction and operation of the proposed school would conform to applicable portions of the State of Washington Energy Code. Energy efficient methods will be used for the mechanical and lighting systems. LED fixtures will be used for lighting.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Environmental health hazards that are likely to be present during construction would include gasoline and diesel fuels, hydraulic fluids, oils, lubricants, and other chemical products associated with construction equipment. A spill of one of these chemicals could potentially occur during construction as a result of either equipment failure or worker error.

1) Describe any known or possible contamination at the site from present or past uses.

Washington Department of Ecology "What's in My Neighborhood" database identifies one site within 0.25 miles of the project site, Mason County Transportation Co-op located at 3740 Shelton Springs Rd. The cleanup has started for petroleum contamination.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

The National Pipeline Public Mapping System did not identify any hazardous liquid or gas transmission pipelines with the project area or the vicinity of the site.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

The proposal does not involve the storage or use of toxic or hazardous chemicals.

4) Describe special emergency services that might be required.

No additional special emergency services will be required other than those normally provided such as police, emergency medical, and fire protection.

5) Proposed measures to reduce or control environmental health hazards, if any:

Any soils contaminated by spills would be excavated and disposed of in a manner consistent with the level of contamination and in accordance with federal, state, and local regulatory requirements. If contaminants are found to have impacted subsurface soils from the septic tanks, they too will be decommissioned and closure sampling for both will be done in accordance with regulations.

Adherence to State protocols for the storage and handling of chemicals associated with the MET curriculum will continue to be enforced.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

There is an airport (Sanderson Field) located near the school (less than 1 mile to the runway). Additional noise sources in the project vicinity include traffic and noise typical of suburban residential development. Noise heard within the building interior is anticipated to be negligible.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

The operation of trucks, excavators, and front-end loaders will likely result in temporary noise and vibration impacts during construction. The temporary increase in noise will terminate once construction of the project is complete.

Some noise may be generated by the proposal as a result of the use of construction-related tools and machinery associated with learning the construction trades. The noise will occur inside the building and not be noticeable outside the building.

There is an existing school located on the project site and there is no significant anticipated increase in noise on a long-term basis beyond that which is occurring at the present time.

3) Proposed measures to reduce or control noise impacts, if any:

Noise levels will not exceed the maximum permissible noise levels allowed under SMC Chapter 9.18. The use of tools and machinery will occur indoors.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The site contains the existing Shelton High School (the school is comprised of several

buildings constructed in or since 1974) and the described additions and modernization will not impact adjacent properties.

Adjacent properties include Oakland Bay Junior High School and residential uses. Land to the west is undeveloped. To the north of Shelton Springs Road is the District Transportation facility.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Agriculture or working forest lands could have been a use on the project site in the past; however, Shelton High School was constructed in 1974 and has been continuously used as a school since that time.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No, the proposal will neither impact, nor be impacted by, surrounding agricultural or forest land operations.

c. Describe any structures on the site.

The campus currently includes the following buildings:

- ***Counseling Center "100" and Business "200"***
- ***Social Studies "300"***
- ***English and Languages "400"***
- ***Home Economics and Math "500"***
- ***Science "600"***
- ***Resource Center "700"***
- ***Technical Center "800"***
- ***Fieldhouse/ Pool "900/1000"***
- ***Classitorium / Music Center "1200 / 1300"***
- ***Student Center "1100"***
- ***Building A***
- ***Highclimber gym***

The gross square footage of the permanent buildings is approximately 175,200 square feet. Many of these buildings are connected with covered walkways. There are also several portables on the site.

d. Will any structures be demolished? If so, what?

This proposal involves the removal of three portables.

e. What is the current zoning classification of the site?

The zoning classification is Medical Educational (ME). The school is also located in Airport Overlay Zone 3 and 6. The parking lot expansion and portables to be removed are located in Zone 3 and all phases of the the proposed MET Academy building and new portables will be located in Zone 6.

The ME zoning district allows schools outright, but as a "Special function land use" in the Airport Overlay Zone 6 (Traffic Pattern Zone), a Special Use Permit is required.

f. What is the current comprehensive plan designation of the site?

The current comprehensive plan designation of the site is ME, Medical / Educational.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable, the site is not within a shoreline master program designated area.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

According to the City's Comprehensive Plan maps, the site is located within a Critical Aquifer Recharge Area "Class I: Extremely Critical" mapped location. The City has also mapped the site as a Low erosion hazard area and a very low to low liquefaction zone.

i. Approximately how many people would reside or work in the completed project?

The new school will maintain the current capacity of approximately 1,400 students and 150 staff.

j. Approximately how many people would the completed project displace?

No people will be displaced by the proposal.

k. Proposed measures to avoid or reduce displacement impacts, if any:

No specific measures are proposed as the proposal would not result in the displacement of any individuals.

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposal replaces the staff parking lot, paving the existing gravel access road and includes the addition of restrooms. As the use and general location of the school on site is not changing, it is not expected to have any adverse impacts on existing or projected land uses.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

There are no impacts and therefore no mitigation measures are proposed.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

The proposal does not include a housing component.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Not applicable, the proposal would not eliminate any housing.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable, the proposal does not include a housing component.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The proposed building height of the MET academy is approximately 27 feet. Exterior materials will be compatible with what exists on site and will consist of vertical metal siding (12" flat panel) and aluminum storefronts.

b. What views in the immediate vicinity would be altered or obstructed?

This proposal will not negatively affect the views in the immediate vicinity.

c. Proposed measures to reduce or control aesthetic impacts, if any:

The proposal will conform to the development and design standards required for the ME zoning district as established by the Shelton Municipal Code and will be consistent with the structures on site.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposal will include new building lighting for nighttime security.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No, the lighting will be produced to enhance safety. The lights will be directed downward so as not to interfere with views or cause glare.

c. What existing off-site sources of light or glare may affect your proposal?

No off-site sources of light or glare are expected to impact the proposal.

d. Proposed measures to reduce or control light and glare impacts, if any:

Lighting fixtures will be shielded, and lighting will be cast downward to reduce light and glare impacts to adjacent properties. The applicant intends to meet the City's lighting standards; this will be reviewed as part of construction plan permitting.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

The existing school provides recreational opportunities that are available to the students during and after school hours and the general public during non-school hours (in accordance with district policies). The recreation facilities include a gymnasium, football field, running track, baseball field, basketball court and tennis courts.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No, the project would not displace any existing recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The Project does not impact any recreational opportunities, and therefore, no mitigation measures are required.

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers ? If so, specifically describe.

The Washington State Department of Archaeology and Historic Preservation (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISAARD) online database maps Shelton High School as "Determined Eligible" for

listing.

No part of the existing building would be destroyed or altered with the proposal. The addition itself will not be attached to the existing building and the color and material choices will seek compatibility.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

The DAHP WISAARD did not identify evidence of historic, archeological, scientific, or cultural landmarks, or evidence of such on or within the vicinity of project site.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The proposal utilized the Washington Information System for Architectural and Archaeological Records Data (WISAARD) online database to assess potential impacts to cultural and historic resources on and near the proposal.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

No work is proposed to the exterior of the existing buildings. The new addition is not attached and will not compromise or remove any part of the existing buildings. The design of the new building intends to use complementary color and material choices for compatibility with the existing buildings.

No disturbance to cultural or historical resources is expected. The Washington State Department of Archaeology and Historic Preservation will be notified if any cultural or archeological objects are found during the site development work. If cultural or archaeological resources are found, then all site work will stop until Washington State Department of Archaeology and Historic Preservation provides guidance.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Current access to the site is provided via three driveway entrances from N Shelton Springs Road. Shelton Springs Road is classified by the City as a major collector.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Mason Transit Authority provides bus service via route 11 and 7 to E. Shelton Springs Road, and routes 1,2,5,6,7,8,11 and Zipper all serve stops on E. Wallace Kneeland Blvd, within walking distance.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

The current parking for the Shelton High School campus is 409 stalls; the proposed total parking is 405 stalls. The reduction will occur in the staff parking lot which currently provides 99 stalls and the proposed lot includes 95 stalls for an overall decrease of four parking stalls. The amount of parking proposed exceeds the 194 stalls required per SMC 20.40.100.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Frontage improvements are not required as part of the proposed site improvements.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The proposal is located approximately one mile from Sanderson Airfield. The proposal will not use water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

There will be no new trips associated with the proposal as there is no anticipated increase in student and staff numbers.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

This proposal will not impact, nor be impacted by, the movement of agricultural and forest products within the vicinity of the project site.

h. Proposed measures to reduce or control transportation impacts, if any:

No measures or mitigation are as there are no anticipated transportation impacts.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

The Project is not expected to create any significant increase in need for public services such as fire protection and police protection.

b. Proposed measures to reduce or control direct impacts on public services, if any.

There are no significant impacts and therefore no measures are proposed.

16. Utilities

a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The site is currently served by City of Shelton water and sewer services. Shelton High School (SHS) domestic water system is a private system and connects to the City of Shelton water system by a service meter on N Shelton Spring Rd. The site is served by City of Shelton sewer services. Any modifications to City owned utilities must meet City of Shelton Design and Construction Standards, and be approved by the City. Mason County PUD 3 is the provider of electricity. The project will include sanitary sewer relocation, water extensions for domestic and fire prevention, electrical vault and line relocation, and gas main extensions.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee: Lisa Klein, AICP

Position and Agency/Organization: Associate Principal, AHBL, Inc.

Date Submitted: November 2, 2020

Shelton School District

700 S. 1st Street
Shelton, WA 98584
(360) 426-1687 Fax 427-8610

NOTICE OF SEPA CONSULTATION

The Shelton School District has issued a preliminary SEPA Checklist and associated documents for comment prior to issuing a threshold determination.

Proposal Name: Shelton High School MET Academy and Parking Improvements
Name of Applicant: Shelton School District No. 309
Notice of SEPA Consultation: November 5, 2020

Site Location:
The project site consists of the Shelton High School and surrounding grounds, located at 3737 N Shelton Springs Rd in the City of Shelton, Washington (Mason County). The tax parcel number is 42012-41-60000. The site is approximately 42.5 acres. The property is located in Section 12, Township 20 North, Range 4 West of the W. M. in Mason County, Washington.

Description of Proposal:
The Shelton School District will be improving the Shelton High School campus through a modernization and expansion project that will add a Manufacturing, Engineering, and Technology (MET) Academy. The proposal consists of adding a 15,000 SF classroom addition and two 1,250 SF portables that will be constructed in phases. The proposal does not add to student capacity or enrollment. Phase 1 of the proposal includes a new 3,400 SF metal frame classroom building including a core/shop, restrooms and small mechanical platform. This phase will also include construction of a 10' concrete walkway around the building, three bioretention cells and a new infiltration trench for the proposed building's roof runoff. Three existing portables will be removed, a portion of the existing gravel access road paved, some utilities relocated, and the existing staff parking lot will be re-striped. Approximately 34,000 SF of asphalt parking area, 850 SF of vertical curbs, 3,100 SF of concrete walkways and 15,000 SF of landscaping will be added. The asphalt on the western side of the proposed MET Academy building will be removed and replaced with grass lawn until Phase 2A. In this portion of the school campus there are currently 99 parking spaces, the Phase 1 proposal will result in 95 parking spaces (reduction of four parking spaces). Phase 2A will add 5,800 SF of building located westerly of the MET Academy building, in line with Building 300 to the south, replacing the lawn that was installed during Phase 2A. This portion of the building will contain classrooms associated with Welding and Mechanical trades. Phase 2B will consist of replacing Portable 3 and 4 in the existing grass courtyard south of the Phase 1 addition. The Portables will be similar to the existing portables with 1,250 SF footprint each. The Portables will have a separate stormwater infiltration trench. Phase 3 will construct a 5,800 SF building addition located easterly of the MET Academy building and will contain wood shop and covered work area. The infiltration trench constructed in Phase 1 will be expanded during each phase to accommodate the new building area from Phases 2A and 3. All stormwater runoff will be fully infiltrated.

Requested Approvals: City of Shelton: Special Use Permit, Building Permit, Fill and Grade Permit, Fire Protection Permit, Building Permits, Plumbing and Mechanical Permit, and Site Development Permits; Other Agency Permits/ Approvals: SEPA determination by Shelton School District, National Pollutant Discharge Elimination System (NPDES) by the Washington State Department of Ecology (DOE).

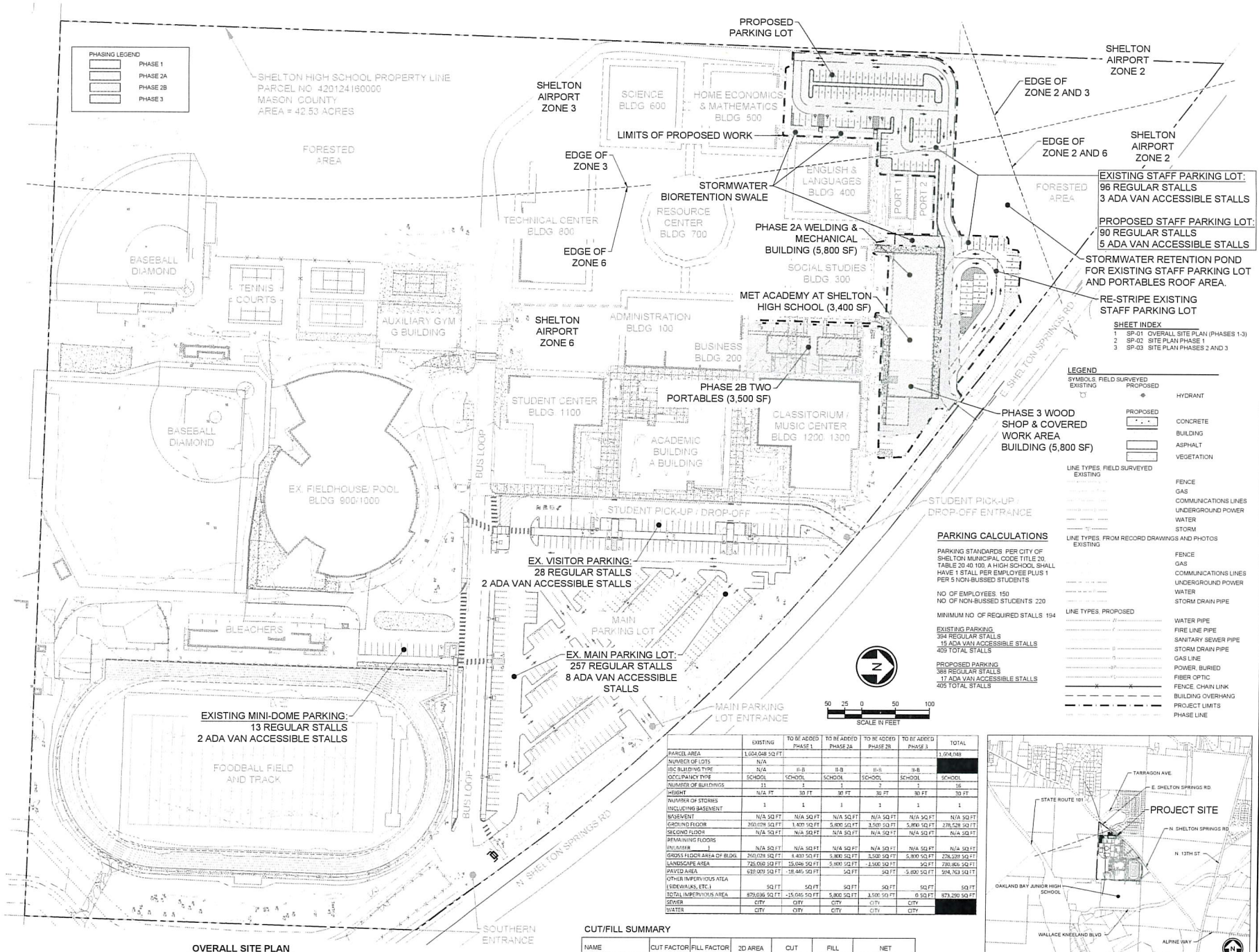
Identification of Existing Environmental Documents: Civil Plan Set; Landscape Plans; Architectural Building Elevations.
Future Environmental Documents: TESC Plan; Geotechnical Engineering Report; Hydrologic engineering Report.

Copies of the documents pertaining to this SEPA consultation are available for review during regular business hours at the Shelton School District offices at the address listed below.

School District Contact:

Robert Herron
Director of Facilities Management and Construction
Designated SEPA Responsible Official
Shelton School District No. 309
700 South 1st Street
Shelton, WA 98584
360-426-6322

Please submit your written comments by 5:00 pm, November 19, 2020 to Robert Herron at the address above.



OVERALL SITE PLAN
SCALE: 1" = 50

SHEET INDEX

LEGEND

SYMBOLS, FIELD SURVEYED

EXISTING	PROPOSED	
		HYDRANT
	PROPOSED	CONCRETE
		BUILDING
		ASPHALT
		VEGETATION

LINE TYPES, FIELD SURVEYED EXISTING: FENCE; GAS; COMMUNICATIONS LINES; UNDERGROUND POWER; WATER; STORM

LINE TYPES, FROM RECORD DRAWINGS AND PHOTOS EXISTING: FENCE; GAS; COMMUNICATIONS LINES; UNDERGROUND POWER; WATER; STORM DRAIN PIPE

LINE TYPES, PROPOSED: WATER PIPE; FIRE LINE PIPE; SANITARY SEWER PIPE; STORM DRAIN PIPE; GAS LINE; POWER, BURIED; FIBER OPTIC; FENCE, CHAIN LINK; BUILDING OVERHANG; PROJECT LIMITS; PHASE LINE

PARKING CALCULATIONS

PARKING STANDARDS PER CITY OF SHELTON MUNICIPAL CODE TITLE 20, TABLE 20.40.100. A HIGH SCHOOL SHALL HAVE 1 STALL PER EMPLOYEE PLUS 1 PER 5 NON-BUSSED STUDENTS

NO. OF EMPLOYEES: 150
NO. OF NON-BUSSED STUDENTS: 220

MINIMUM NO. OF REQUIRED STALLS: 194

EXISTING PARKING:
394 REGULAR STALLS
15 ADA VAN ACCESSIBLE STALLS
409 TOTAL STALLS

PROPOSED PARKING:
388 REGULAR STALLS
17 ADA VAN ACCESSIBLE STALLS
405 TOTAL STALLS

	EXISTING	TO BE ADDED PHASE 1	TO BE ADDED PHASE 2A	TO BE ADDED PHASE 2B	TO BE ADDED PHASE 3	TOTAL
PARCEL AREA	1,604,048 SQ FT					1,604,048
NUMBER OF LOTS	N/A					
IBC BUILDING TYPE	N/A	II-B	II-B	II-B	II-B	
OCCUPANCY TYPE	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL	SCHOOL
NUMBER OF BUILDINGS	11	1	1	2	1	16
HEIGHT	N/A FT	30 FT	30 FT	30 FT	30 FT	30 FT
NUMBER OF STORIES INCLUDING BASEMENT	1	1	1	1	1	1
BASEMENT	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT
GROUND FLOOR	260,028 SQ FT	1,400 SQ FT	5,800 SQ FT	3,500 SQ FT	5,800 SQ FT	276,528 SQ FT
SECOND FLOOR	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT
REMAINING FLOORS (NUMBER)	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT	N/A SQ FT
GROSS FLOOR AREA OF BLDG	260,028 SQ FT	1,400 SQ FT	5,800 SQ FT	3,500 SQ FT	5,800 SQ FT	276,528 SQ FT
LANDSCAPE AREA	725,060 SQ FT	15,046 SQ FT	5,800 SQ FT	-3,500 SQ FT	SQ FT	730,806 SQ FT
PAVED AREA	619,009 SQ FT	-18,446 SQ FT	SQ FT	SQ FT	-5,800 SQ FT	594,763 SQ FT
OTHER IMPERVIOUS AREA (SIDEWALKS, ETC.)	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT
TOTAL IMPERVIOUS AREA	879,036 SQ FT	+15,046 SQ FT	5,800 SQ FT	3,500 SQ FT	0 SQ FT	873,290 SQ FT
SEWER	CITY	CITY	CITY	CITY	CITY	
WATER	CITY	CITY	CITY	CITY	CITY	

CUT/FILL SUMMARY

NAME	CUT FACTOR	FILL FACTOR	2D AREA	CUT	FILL	NET
PH 1 MET FG-EG	1.100	1.000	50,335 SQ. FT	450 CU. YD.	400 CU. YD.	50 CU. YD. <CUT>

VICINITY MAP (NOT TO SCALE)

REVISIONS

SPECIAL USE PERMIT SITE PLAN
SHELTON MET ACADEMY

HUITT-ZOLLARS
1102 Broadway, Suite 301
Tacoma, Washington 98402
Phone (253) 593-5115 Fax (253) 627-4733

SHELTON SCHOOL DISTRICT
MET ACADEMY AT SHELTON HIGH SCHOOL
3737 NORTH SHELTON SPRINGS RD. SHELTON, WA 98584

PRELIMINARY
NOT FOR CONSTRUCTION

NAC ARCHITECTURE
nacarchitecture.com
2101 WEST 34th | SUITE 100
SEATTLE WA 98199
PHONE 425.822

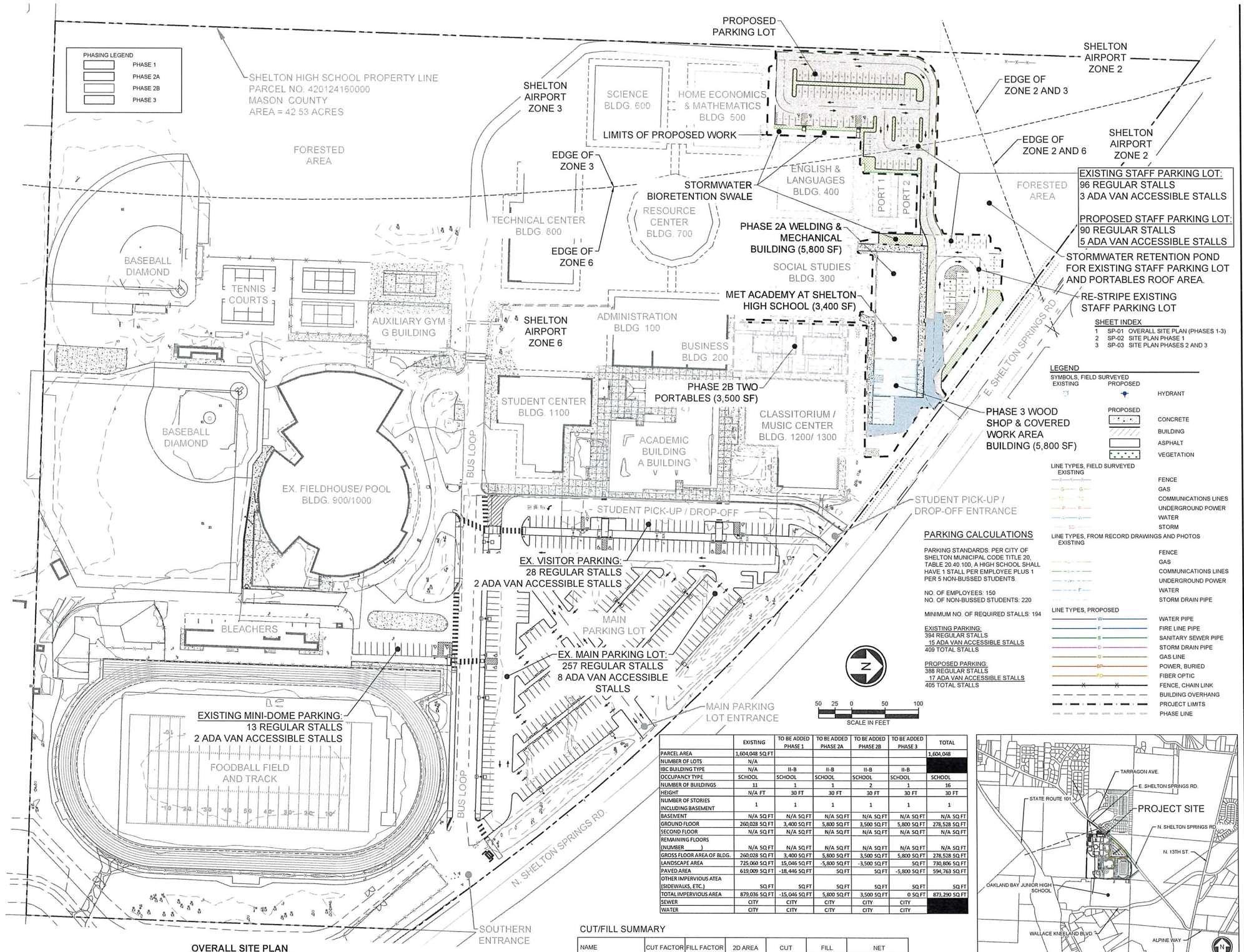
NAC NO. 121-20005
DRAWN DRG
CHECKED B. DUNNING
DATE 10-23-2020

COVER SHEET

SP-01

Attachment 3

Project Plans (10 Sheets)



OVERALL SITE PLAN
SCALE: 1" = 50'

PARKING CALCULATIONS

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LEGEND

SYMBOLS, FIELD SURVEYED
EXISTING / PROPOSED
HYDRANT

PROPOSED
CONCRETE
BUILDING
ASPHALT
VEGETATION

LINE TYPES, FIELD SURVEYED EXISTING
FENCE
GAS
COMMUNICATIONS LINES
UNDERGROUND POWER
WATER
STORM

LINE TYPES, FROM RECORD DRAWINGS AND PHOTOS EXISTING
FENCE
GAS
COMMUNICATIONS LINES
UNDERGROUND POWER
WATER
STORM DRAIN PIPE

LINE TYPES, PROPOSED
WATER PIPE
FIRE LINE PIPE
SANITARY SEWER PIPE
STORM DRAIN PIPE
GAS LINE
POWER, BURIED
FIBER OPTIC
FENCE, CHAIN LINK
BUILDING OVERHANG
PROJECT LIMITS
PHASE LINE

	EXISTING	TO BE ADDED PHASE 1	TO BE ADDED PHASE 2A	TO BE ADDED PHASE 2B	TO BE ADDED PHASE 3	TOTAL
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WATER	CITY	CITY	CITY	CITY	CITY	

CUT/FILL SUMMARY

NAME	CUT FACTOR	FILL FACTOR	2D AREA	CUT	FILL	NET
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VICINITY MAP (NOT TO SCALE)

SHEET INDEX

REVISIONS

SPECIAL USE PERMIT SITE PLAN
SHELTON MET ACADEMY

HUITT-ZOLLARS
1102 Broadway, Suite 301
Tacoma, Washington 98402
Phone (253) 627-0131 Fax (253) 627-4720

SHELTON SCHOOL DISTRICT
MET ACADEMY AT SHELTON HIGH SCHOOL
3737 NORTH SHELTON SPRINGS RD, SHELTON, WA, 98584

PRELIMINARY NOT FOR CONSTRUCTION

NAC ARCHITECTURE
nacarchitecture.com
2025 FIRST AVE | SUITE 300
SEATTLE WA 98121
P:206.447.4522

NAC NO	121-20005
DRAWN	DRG
CHECKED	B. DUNNING
DATE	10-23-2020

COVER SHEET

SP-01

BASIS OF MERIDIAN:
WASHINGTON STATE PLANE COORDINATES, NAD 83/91 SOUTH ZONE 4601.

VERTICAL DATUM:
NAVD 88

SHELTON AIRPORT ZONE 2
SHELTON AIRPORT ZONE 3
SHELTON AIRPORT ZONE 6
SHELTON HIGH SCHOOL PROPERTY LINE, TYP.
LOCATION OF EX. GAS LINE, TYP.
EDGE OF ZONE 2 AND 6
EDGE OF ZONE 2 AND 3
EDGE OF ZONE 3
EDGE OF ZONE 6
EX STORMWATER RETENTION FACILITY
LOCATION OF EX. POWER VAULT AND TRANSFORMER TO BE RELOCATED IF NECESSARY
LANDSCAPE ISLAND, TYP
PORTABLES 3 TO BE REMOVED WITH PHASE 1 WORK.
EX ASPHALT TO REMAIN
ASPHALT PAVING, TYP
RE-STRIPE EX STAFF PARKING LOT
EDGE OF EX ASPHALT, TYP
26' WIDE FIRE LANE/TURNAROUND
LIMITS OF PROJECT
PROPOSED FRONTAGE LANDSCAPING
TRAVEL DIRECTION MARKER, TYP.
E. SHELTON SPRINGS RD.
EX ASPHALT SIDEWALK, TYP
PROPOSED ASPHALT PAVING
PHASE 1
PHASE 2A
PHASE 2B
PHASE 3
PORTABLE 1
PORTABLE 2
PORTABLES 4 TO BE REMOVED WITH PHASE 1 WORK.
INFILTRATION TRENCH FOR PHASE 1 ROOF
6'(W) X 50'(L) X 4'(D)
FUTURE BUILDING EXPANSION, TYP
FIRE DEPARTMENT CONNECTION
LOCATION OF EX POWER TRANSFORMER
ASPHALT AREA ON WEST SIDE OF PROPOSED BUILDING SHALL BE DEMOLISHED AND REPLACED WITH GRASS LAWN UNTIL FUTURE BUILDING EXPANSION.
10' CONCRETE WALKWAY AROUND BUILDING, TYP
EDGE OF MET BUILDING, TYP.
OS&Y VALVE
FIRE LINE CONNECTION TO BUILDING RISER ROOM
FIRE HYDRANT
TEMPORARY CONCRETE VALLEY GUTTER UNTIL FUTURE EXPANSION
TEE WITH CAP FOR FUTURE EXPANSION
WYE WITH CAP FOR FUTURE EXTENSION
2 POWER VAULTS
STAFF PARKING ONLY
METAL VOTING BOX
GAS LINE BELOW
FUTURE BUILDING EXPANSION, ROOF OVERHANG TYP.
WOOD POLE
2" PVC RISER E
4" PVC RISER E
NEW SIDEWALK TO MEET AND MATCH EX ASPHALT WALKWAY
BIORETENTION CELL
15'(W) X 65'(L)
1' DEEP
1.5' SOIL
4' GRAVEL
BIORETENTION FACILITY
MIN BOTTOM AREA = 833 SF
4:1 SIDE SLOPES
1' DEPTH
1.5' AMENDED SOIL
2.5' GRAVEL
EX LIGHT POLE TO BE DEMOLISHED
EX FIRE HYDRANT TO BE RELOCATED
EX. POWER VAULT TO BE RELOCATED IF NECESSARY.
EX. FIRE HYDRANT AND FIRE SUPPRESSION LINE. PROPOSED EXTENSION FOR BUILDING FIRE SUPPRESSION SYSTEM
PROPOSED POWER VAULT
ASPHALT AREA ON EAST SIDE OF PROPOSED BUILDING SHALL BE LEFT IN EXISTING CONDITIONS UNTIL FUTURE BUILDING EXPANSION. PARKING MARKING TO REMAIN BUT ARE NOT ACCOUNTED FOR IN PARKING CALCULATIONS.
DOMESTIC WATER CONNECTION
FUTURE PORTABLES, TYP
ENGLISH & LANGUAGES BLDG. 400
SOCIAL STUDIES BLDG. 300
CLASSITORIUM / MUSIC CENTER BLDG. 1200/ 1300
HOME ECONOMICS & MATHEMATICS BLDG. 500
SHELTON HIGH SCHOOL
ADA ACCESS
FINISHED FLOOR = 238.27
RAISED WOOD PLANTER BOX
CONCRETE BLOCK RETAINING WALL
MEMORIAL PLAQUE
PIANO SCULPTURE
CONCRETE RETAINING WALL
TOP OF PARAPET = 270.72
BASIN # 1
BASIN # 2
TRASH CAN

SCALE IN FEET: 20 10 0 20 40

SITE PLAN AND HORIZONTAL CONTROL PLAN PHASE 1
SCALE: 1" = 20'

REVISIONS

HUITT-ZOLLARS
1102 Broadway, Suite 301
Tacoma, Washington 98402
Phone (253) 627-0131 Fax (253) 627-4130

SPECIAL USE PERMIT SITE PLAN
SHELTON MET ACADEMY

SHELTON SCHOOL DISTRICT
MET ACADEMY AT SHELTON HIGH SCHOOL
3737 NORTH SHELTON SPRINGS RD, SHELTON, WA, 98584

PRELIMINARY NOT FOR CONSTRUCTION

NAC ARCHITECTURE
nacarchitecture.com
2901 FIRST AVE | SUITE 300
SEATTLE WA 98121
P|206.441.4522

NAC NO	121-20005
DRAWN	DRG
CHECKED	B. DUNNING
DATE	10-23-2020

SITE PLAN PHASE 1

SP-02

BASIS OF MERIDIAN:
WASHINGTON STATE PLANE
COORDINATES, NAD 83/91 SOUTH
ZONE 4601.

VERTICAL DATUM:
NAVD 88

PHASING LEGEND
PHASE 1
PHASE 2A
PHASE 2B
PHASE 3

SCALE IN FEET
20 10 0 20 40

E. SHELTON SPRINGS RD.

LOCATION OF EX. GAS LINE, TYP.
SHELTON AIRPORT ZONE 2
SHELTON AIRPORT ZONE 6
SHELTON AIRPORT ZONE 3
EDGE OF ZONE 2 AND 6
EDGE OF ZONE 2 AND 3
SHELTON HIGH SCHOOL PROPERTY LINE, TYP.
EX. STORMWATER RETENTION FACILITY
LOCATION OF EX. POWER VAULT, TRANSFORMER AND FIRE HYDRANT TO BE RELOCATED IF NECESSARY.
LANDSCAPE ISLAND, TYP.
EX ASPHALT TO REMAIN
ASPHALT PAVING, TYP.
RE-STRIPE EX STAFF PARKING LOT
EDGE OF EX ASPHALT, TYP
26' WIDE FIRE LANE/TURNAROUND
LIMITS OF PROJECT, TYP.
PROPOSED FRONTAGE LANDSCAPING
TRAVEL DIRECTION MARKER, TYP
FIRE HYDRANT
PROPOSED ASPHALT PAVING
EX ASPHALT SIDEWALK, TYP.
GAS LINE BELOW
ROOF OVERHANG
PHASING LINE, TYP.
INFILTRATION TRENCH FOR PHASE 1 ROOF
6'(W) X 50'(L) X 4'(D)
INFILTRATION TRENCH EXPANSION FOR PHASE 2A AND 3
OS&Y VALVE
FIRE LINE CONNECTION TO BUILDING RISER ROOM
EDGE OF MET BUILDING, TYP
LOCATION OF EX POWER TRANSFORMER
BIORETENTION CELL
15'(W) X 65'(L)
1' DEEP
1.5' SOIL
4' GRAVEL
NEW SIDEWALK TO MEET AND MATCH EX ASPHALT WALKWAY
EX. POWER VAULT TO BE RELOCATED IF NECESSARY.
EX. FIRE HYDRANT AND FIRE SUPPRESSION LINE. PROPOSED EXTENSION FOR BUILDING FIRE SUPPRESSION SYSTEM.
PROPOSED POWER VAULT
PROPOSED ASPHALT PAVING
EX LIGHT POLE TO BE DEMOLISHED
EX FIRE HYDRANT TO BE RELOCATED
BIORETENTION FACILITY
MIN BOTTOM AREA = 833 SF
4:1 SIDE SLOPES
1' DEPTH
1.5' AMENDED SOIL
2.5' GRAVEL
PROPOSED REPLACEMENT PORTABLES 3 AND 4, 1,250 SF EACH.
INFILTRATION TRENCHES FOR PHASE 2B
EDGE OF ZONE 3
EDGE OF ZONE 6
CONCRETE RETAINING WALL
CONCRETE BLOCK RETAINING WALL
TRASH CAN
BASIN # 1
BASIN # 2

PORTABLE 1
PORTABLE 2
PHASE 1
PHASE 2A (5,800 SF)
PHASE 1 (3,400 SF)
PHASE 3 (5,800 SF)
PHASE 2B (3,500 SF)

ENGLISH & LANGUAGES BLDG. 400
SOCIAL STUDIES BLDG. 300
CLASSITORIUM / MUSIC CENTER BLDG. 1200/ 1300
HOME ECONOMICS & MATHEMATICS BLDG. 500

SITE PLAN AND HORIZONTAL CONTROL PLAN
PHASES 2A, 2B AND 3
SCALE: 1" = 20'

REVISIONS

SPECIAL USE PERMIT SITE PLAN
SHELTON MET ACADEMY

HUITT-ZOLLARS
1102 Broadway, Suite 301
Tacoma, Washington 98402
Phone (253) 627-3131 Fax (253) 627-4730

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NAC NO	121-20005
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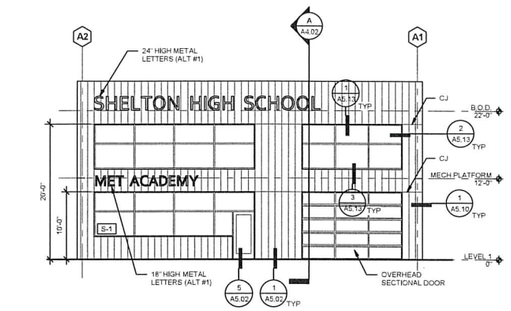
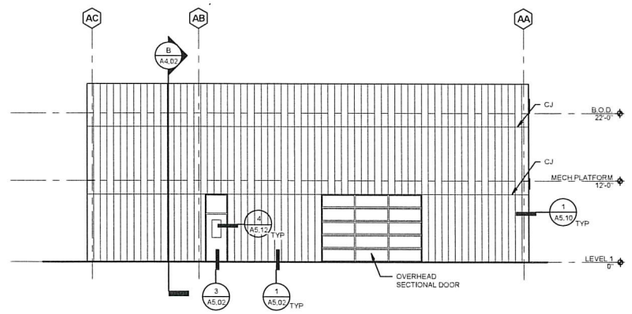
CHECKED	B. DUNNING
DATE	10-23-2020

SITE PLAN
PHASES 2 AND 3

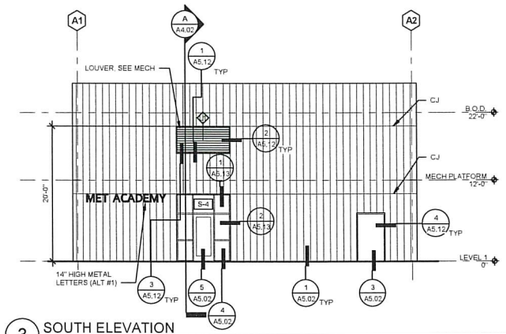
SP-03



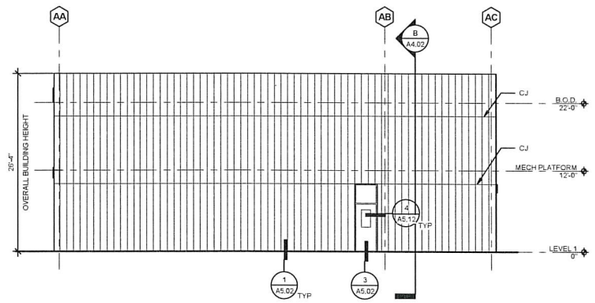
1 NORTH ELEVATION
Scale: 1/8" = 1'-0"



2 EAST ELEVATION
Scale: 1/8" = 1'-0"



3 SOUTH ELEVATION
Scale: 1/8" = 1'-0"



4 WEST ELEVATION
Scale: 1/8" = 1'-0"

EXTERIOR ELEVATION GENERAL NOTES

1. LOCATION AND SPACING OF WINDOW MULLIONS, MASONRY CONTROL JOINTS AND COURSE PATTERNS, ETC, ARE TO BE AS SHOWN ON EXTERIOR ELEVATIONS. WHERE NOT DIMENSIONED OR DETAILED, WINDOW MULLIONS AND MATERIAL JOINTS ARE TO BE EQUALLY SPACED AND/OR CENTERED/ALIGNED WITH ADJACENT ELEMENT (MASONRY COLUMN, EDGE OR CENTER LINE OF WINDOW OR DOOR OPENING, ETC) AS SHOWN.
2. CFB PANEL JOINTS TO ALIGN WITH WINDOW & LOUVER ROUGH OPENINGS AS SHOWN ON ELEVATIONS. WHEN PANELS ARE REQUIRED TO BE CUT, FOLLOW MFR RECOMMENDATIONS FOR MINIMUM PANEL WIDTH.
3. SEE SHEET A4.04 FOR ALUMINUM LOUVER TYPES AND SHEET A5.12 FOR LOUVER DETAILS. SEE MECH FOR COORDINATION WITH DUCTWORK.
4. REFER TO DETAILS FOR DIMENSION REFERENCE POINTS.
5. EXPANSION JOINTS EXTEND FULL HEIGHT OF MASONRY, TYP. WHERE 'EJ' IS INDICATED AT INSIDE CORNERS, THE JOINT SHALL PENETRATE THE MASONRY SURFACE ON WHICH THE LABEL OCCURS. SEE DETAILS FOR ADDITIONAL EJ LOCATIONS.
6. ALL WINDOW & LOUVER DIMENSIONS ARE FOR ROUGH OR MASONRY OPENING, UNO. SEE PLANS & DETAILS FOR ADDITIONAL DIMENSION INFORMATION.
7. EXTERIOR WALL FINISHES EXTEND FULL HEIGHT. SEE BUILDING SECTIONS & DETAILS.
8. BRICK TO EXTEND 1 COURSE BELOW GRADE WHERE BUILDING MEETS GRADE.
9. 0'-0" IS THE DATUM ELEVATION AND CORRESPONDS TO THE REFERENCED FLOOR SLAB ELEVATION 235.39 AT THE MIM-DOME.
10. REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR DEVICE & FIXTURE TYPES AND QUANTITIES. WHERE FIXTURES OCCUR, CENTER ABOVE WINDOW OR MULLION. REFER TO ELEVATIONS FOR MOUNTING HEIGHT. REFER TO EXTERIOR WALL DETAILS FOR FIXTURE MOUNTING DETAIL.

MATERIALS LEGEND

METAL SIDING - 12" VERTICAL PANEL, EXFIN-1

ROOF FLASHING PER ROOF DETAILS

NOTE: THIS LEGEND DOES NOT INCLUDE ALL MATERIALS. SEE NOTES & REFERENCED DETAILS FOR ADDT'L INFO.

EXTERIOR FINISH GENERAL NOTES

1. EXTERIOR FINISH NOTES APPLY TO BUILDING AND SITE.
2. EXTERIOR STEEL DOORS AND FRAMES TO BE PT EXFIN-2, UNO.
3. SEE DETAILS FOR METAL FASCIA AND CONTINOUS CLEATS FINISHES.
4. EXTERIOR LOUVERS AND ASSOCIATED EXPOSED FLASHING COLOR TO BE EXFIN-1, UNO.
5. ALL EXPOSED CAST IN PLACE CONCRETE TO HAVE A CLEAR SEALER PER SPECIFICATIONS.
6. SIGN POSTS, BOLLARDS, AND STEEL GATES TO BE PT EXFIN-2.
7. ALL GUTTERS & DOWNSPOUTS TO BE EXFIN-1 (FACTORY FINISH).
8. ROOF TOP VENTS, COWLS, FLUES AND ASSOCIATED FLASHINGS TO BE PT EXFIN-2.
9. EXPOSED STEEL LINTELS SUPPORTING MASONRY TO BE PT EXFIN-2.

EXTERIOR FINISH LEGEND

EXFIN-1 MATCH AEP SPAN COOL TERRA COTTA
EXFIN-2 MATCH AEP SPAN COOL ZATIQUE II
EXFIN-3 CLEAR ANODIZED ALUMINUM @ SF
EXFIN-4 MATCH AEP SPAN COOL METALLIC SILVER

REVISIONS

SPECIAL USE PERMIT SUBMITTAL

TYLER R. BERG REGISTERED ARCHITECT STATE OF WASHINGTON

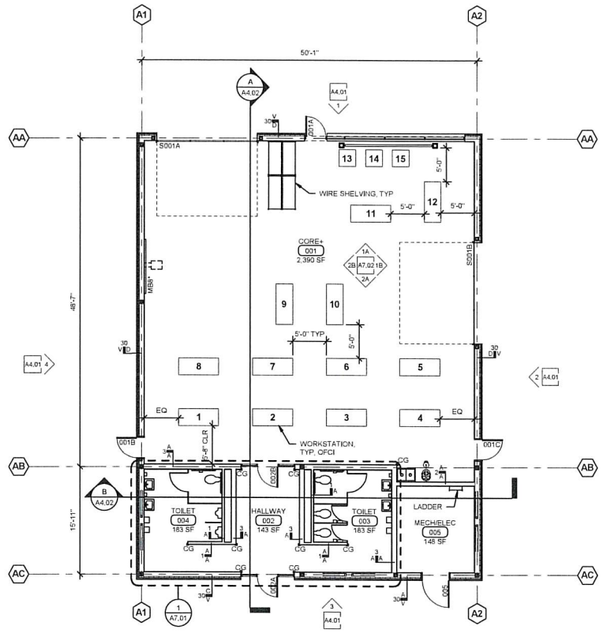
SHELTON SCHOOL DISTRICT
SHELTON HIGH SCHOOL - MET ACADEMY
3737 NORTH SHELTON SPRINGS RD, SHELTON, WA, 98584

NAC ARCHITECTURE
nacarchitecture.com
2101 FIRST AVE | T.(206) 300
SEATTLE WA 98121
P.206.441.4522

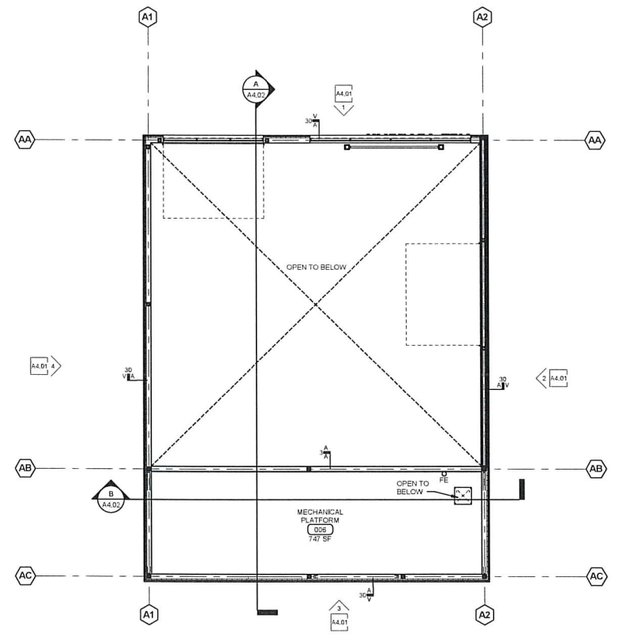
NAC NO	121-20005
DRAWN	MB
CHECKED	BC
DATE	11/2/20

EXTERIOR ELEVATIONS

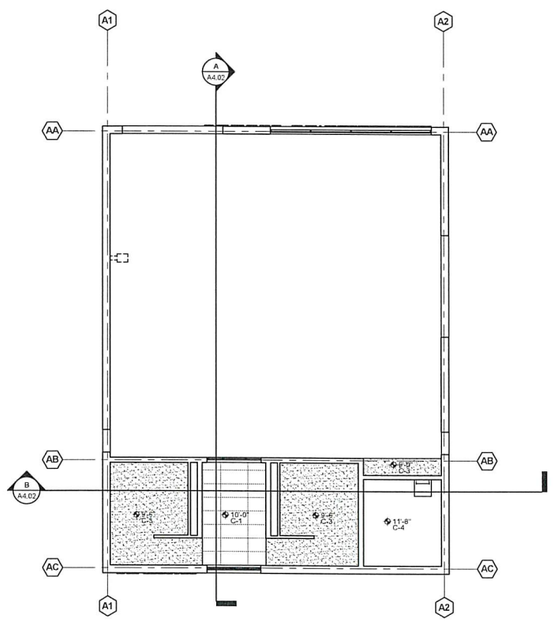
A4.01



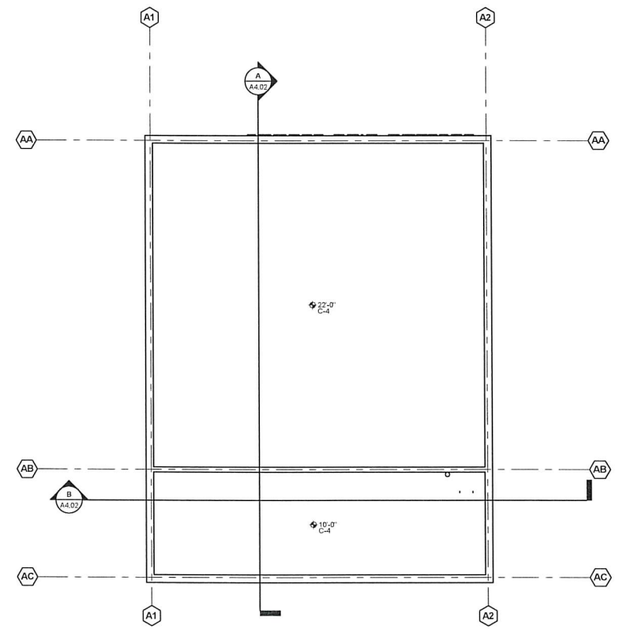
N
FIRST FLOOR PLAN
Scale: 1/8" = 1'-0"



N
MECHANICAL PLATFORM PLAN
Scale: 1/8" = 1'-0"



N
FIRST FLOOR REFLECTED CEILING PLAN
Scale: 1/8" = 1'-0"



N
MECHANICAL PLATFORM REFLECTED CEILING PLAN
Scale: 1/8" = 1'-0"

SPECIALTIES / ACCESSORIES / EQUIPMENT LEGEND

NOTE: THE NUMBER THAT FOLLOWS EACH ITEM ON THE FLOOR PLAN INDICATES EITHER A SPECIFIC ITEM THAT IS REFERENCED IN THE SPECIFICATIONS OR THE SIZE OF THE ITEM. FOR EXAMPLE MB8 IS A MARKER BOARD 8' WIDE

MB__	MARKER BOARD AND LENGTH	■	FLOOR DRAIN, FLUSH, SEE MECHANICAL
TB__	TACK BOARD AND LENGTH		SHORT THROW PROJECTOR, OFCI
FE	FIRE EXTINGUISHER - SURFACE MOUNTED		FLOOR SINK
FEC	FIRE EXTINGUISHER AND CABINET		UTILITY SINK
AED	DEFIBRILATOR AND CABINET		FREE STANDING EMERGENCY EYE WASH / SHOWER

CORE+ WORKSTATION LEGEND

1. AC / DC CONTROL
2. ELECTRICAL CONTROL
3. ELECTRICAL FABRICATION
4. PRINT READING
5. CAD 1
6. MEASURING TOOLS
7. MECHANICAL SYSTEMS
8. PNEUMATICS
9. CNC
10. MECHANICAL FABRICATION
11. MACHINE TOOLS
12. ROBOTICS
13. DRILL PRESS
14. MILLING MACHINE
15. BAND SAW

RCP LEGEND

1'-0" C-1 — CEILING HEIGHT (HEIGHTS INDICATED ARE RELATIVE TO 0'-0" FLOOR LEVEL).

- LIGHT FIXTURES
- SUPPLY DIFFUSERS
- RETURN AIR REGISTER OR EXHAUST FAN
- EXIT LIGHT

CODED NOTES - RCP

1. ALIGN FINISH FACE OF SOFFIT WITH FINISH FACE OF WALL
2. FULLY ENCLOSED VOID SPACE, NO CEILING WORK REQUIRED

CEILING TYPES

ALL CEILINGS ARE TYPE C-1, UNLESS NOTED OTHERWISE

C-1	2' x 2' SUSPENDED ACOUSTICAL PANEL CEILING
C-2	2' x 2' SUSPENDED ACOUSTICAL PANEL CEILING
C-3	FRAMED OR SUSPENDED 5/8" GYPSUM BOARD
C-4	EXPOSED STRUCTURE

GENERAL RCP NOTES

1. GENERALLY CENTER CEILING GRIDS IN EACH ROOM TO PROVIDE EQUALLY SIZED PANELS ON OPPOSITE WALLS. IF PLANS INDICATE A GRID ALIGNING WITH A COLUMN, WALL, SOFFIT, ETC, START GRID AT THE INDICATED SURFACE. AVOID PANELS LESS THAN 12" IN WIDTH.
2. SEE FINISH SCHEDULE FOR COLORS.
3. ALL WALLS EXTEND TO STRUCTURAL DECK ABOVE, UNLESS NOTED OTHERWISE. SEE CODE PLANS FOR ADDITIONAL INFORMATION.
4. SEE DETAIL 1/G2.03 FOR TYPICAL LATERAL BRACING OF SUSPENDED ACOUSTICAL PANEL CEILINGS.
5. ALL GYP BD CEILING AND SOFFITS TO BE PAINTED PT 6.1.
6. ALL EXPOSED STEEL FRAMING AND DECK AT CEILINGS TO BE PAINTED.
7. EXCEPT AT STORAGE, MECHANICAL AND ELECTRICAL UTILITY ROOMS PAINT ALL EXPOSED DUCTWORK, PIPING AND CONDUITS.
8. SEE SHEET A5.40 FOR TYPICAL CEILING AND SOFFIT DETAILS.
9. CEILING HEIGHT TO BE MEASURED FROM FINISH FLOOR LEVEL OF THE ROOM OR THE AREA WHERE CEILING IS IN. CEILING HEIGHT ABOVE RAMP TO BE MEASURED FROM BOTTOM OF LOWEST LEVEL LANDING OF RAMP.
10. SPRINKLER HEADS/ELECTRICAL DEVICES LOCATED IN ACP CEILINGS ARE TO BE CENTERED IN CEILING TILES. TYP. UNO.
11. CEILING TYPE C-5 TO BE PAINTED PT 6.1 WHERE EXPOSED.
12. WHERE HEIGHT OF CEILING TYPE C-3 IS INDICATED AS "VARIES" IT IS TO BE INSTALLED AT THE BOTTOM OF OF THE ROOF JOISTS.

REVISIONS

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SHELTON SCHOOL DISTRICT
SHELTON HIGH SCHOOL - MET ACADEMY
3737 NORTH SHELTON SPRINGS RD, SHELTON, WA, 98584

NAC ARCHITECTURE
nacarchitecture.com
2101 FIRST AVE | SUITE 300
SEATTLE WA 98121
P.206.441.4622

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FIRST FLOOR PLAN, MECHANICAL PLATFORM PLAN AND REFLECTED CEILING PLANS

A3.11

N SHELTON SPRINGS RD

SCALE: 1"=20'-0"

0' 10' 20' 40' 80'

N

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WEISMANDESIGNGROUP

NAC ARCHITECTURE
nacarchitecture.com
2025 FIRST AVE | SUITE 300
SEATTLE WA 98121
P:206.441.1522

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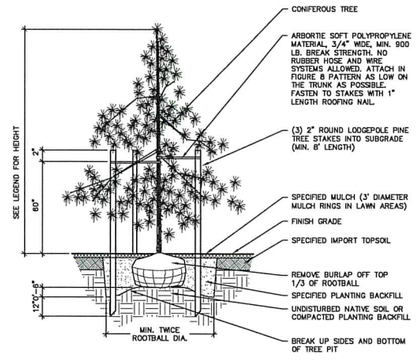
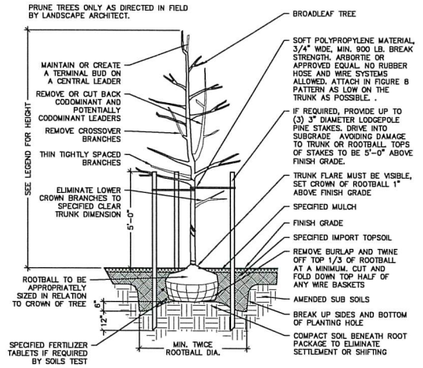
PLANTING PLAN

L1.00



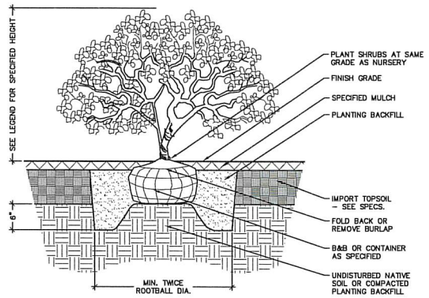
1 CONIFEROUS TREE PLANTING

NTS



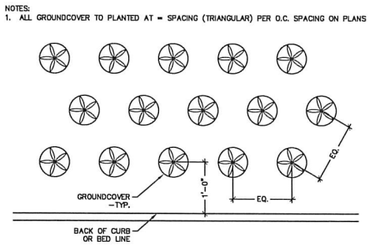
2 DECIDUOUS TREE PLANTING

NTS



3 SHRUB PLANTING

NTS



4 GROUNDCOVER PLANTING

NTS

PLANT SCHEDULE

	BOTANICAL / COMMON NAME	SIZE	CONDITION/REMARKS
DECIDUOUS TREES			
	ACER RUBRUM 'AUTUMN FLAME' AUTUMN FLAME MAPLE	MIN. 2" CAL., 10'-12" MIN. HT.	MATCHED, B&B., WELL BRANCHED ABOVE 6'HT.
	NYSSA SYLVATICA 'BLACK TUPELO' SOUR GUM	MIN. 2" CAL., 10'-12" MIN. HT.	MATCHED, B&B., WELL BRANCHED ABOVE 6'HT.
	PLATANUS X ACERIFOLIA 'BLOODGOOD' LONDON PLANE TREE	MIN. 2" CAL., 10'-12" MIN. HT.	MATCHED, B&B., WELL BRANCHED ABOVE 6'HT.
EVERGREEN TREES	BOTANICAL / COMMON NAME	SIZE	CONDITION/REMARKS
	PSEUDOTSUGA MENZIESII DOUGLAS FIR	MIN. 8'-10' HT.	FULL AND BUSHY TO BASE, B&B OR CONT.
SMALL ACCENT TREES	BOTANICAL / COMMON NAME	SIZE	CONDITION/REMARKS
	ACER CIRCINATUM (MULTI-STEM) VINE MAPLE	(3) 1" CAL. TRUNKS, MIN. 8'-10' HT	MATCHED, B&B., WELL BRANCHED
	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' 'AUTUMN BRILLIANCE' SERVICEBERRY	(3) 1" CAL. TRUNKS, MIN. 8'-10' HT	MATCHED, B&B., WELL BRANCHED
SHRUBS	BOTANICAL / COMMON NAME	SIZE	CONDITION/REMARKS
	CORNUS STOLONIFERA 'ARCTIC FIRE' ARCTIC FIRE DOGWOOD	MIN. 24"-30" HT./SPD.	FULL & BUSHY, SPACING AS SHOWN ON PLAN
	HOLODISCUS DISCOLOR OCEAN-SPRAY	MIN. 30"-36" HT./SPD.	FULL & BUSHY, SPACING AS SHOWN ON PLAN
	MYRICA CALIFORNICA PACIFIC WAX MYRTLE	MIN. 24"-30" HT./SPD.	FULL & BUSHY, SPACING AS SHOWN ON PLAN
	RIBES SANGUINEUM 'KING EDWARD VII' RED FLOWERING CURRANT	MIN. 30"-36" HT./SPD.	FULL & BUSHY, SPACING AS SHOWN ON PLAN
	SPIRAEA JAPONICA 'ANTHONY WATERER' JAPANESE SPIREA	MIN. 18"-24" HT./SPD.	FULL & BUSHY, SPACING AS SHOWN ON PLAN
	SYMPHORICARPOS ALBUS COMMON WHITE SNOWBERRY	MIN. 18"-24" HT./SPD.	FULL & BUSHY, SPACING AS SHOWN ON PLAN
	VACCINIUM OVATUM EVERGREEN HUCKLEBERRY	MIN. 18"-24" HT./SPD.	FULL & BUSHY, SPACING AS SHOWN ON PLAN
BIORETENTION PLANTING MIX	BOTANICAL / COMMON NAME	SIZE	CONDITION/REMARKS
	33% CAREX OBNUPTA SLOUGH SEDGE	MIN. 1 GAL. CONTAINER	18" O.C. TRAING. SPAC., START FIRST ROW 12" FROM EDGE
	33% IRIS TENAX OREGON IRIS	MIN. 1 GAL. CONTAINER	18" O.C. TRAING. SPAC., START FIRST ROW 12" FROM EDGE
	33% JUNCUS ENSIFOLIUS SWORDLEAF RUSH	MIN. 1 GAL. CONTAINER	18" O.C. TRAING. SPAC., START FIRST ROW 12" FROM EDGE
GROUND COVER AREAS	BOTANICAL / COMMON NAME	SIZE	CONDITION/REMARKS
	50% GAULTHERIA SHALLON SALAL	MIN. 1 GAL. CONTAINER	24" O.C. TRIANG. SPAC., START FIRST ROW 16" FROM EDGE
	50% MAHONIA REPENS CREEPING MAHONIA	MIN. 1 GAL. CONTAINER	24" O.C. TRIANG. SPAC., START FIRST ROW 16" FROM EDGE
LAWN	BOTANICAL / COMMON NAME	SIZE	CONDITION/REMARKS
	SEED LAWN	N/A	LAWN WILL BE TEMPORARY, SEE PHASING PLANS

PLANTING NOTES

1. SUBMIT COLOR PHOTOS REPRESENTATIVE OF PROPOSED NURSERY STOCK FOR EACH PLANT SPECIES AND VARIETY LISTED IN LANDSCAPE SCHEDULE. FINAL APPROVAL OF PLANT MATERIAL WILL NOT BE PROVIDED UNTIL DELIVERY AND REVIEW ON SITE.
2. CONTAINERIZED TREES ARE STRONGLY DISCOURAGED. TREES WITH LARGE CIRCLING ROOTS OR TOO DEEP ROOT SYSTEMS WILL BE REJECTED.
3. ALL ROOT PACKAGES MUST BE FREE OF ANY WEEDS.
4. TREE STAKING REQUIREMENTS WILL BE DETERMINED BY LANDSCAPE ARCHITECT AT THE TIME OF PLANTING. PROPERLY PROPORTIONED AND PLANTED TREES WITH HEALTHY ROOT PACKAGES MAY NOT REQUIRE STAKING.
5. ALL TREE STAKES MUST BE REMOVED BY THE CONTRACTOR BY THE END OF THE FIRST FULL GROWING SEASON.
6. AT THE DIRECTION OF THE LANDSCAPE ARCHITECT, PRUNING MAY BE REQUIRED TO REMOVE DAMAGED, CROSSING, MISSHAPEN OR LOW BRANCHING LIMBS. TREES SHOULD NOT REQUIRE SIGNIFICANT PRUNING TO CORRECT HEALTH OR AESTHETIC DEFICIENCIES.
7. INSTALL 3" DEPTH SPECIFIED MULCH IN ALL LANDSCAPE AREAS.
8. INSTALL 8" DEPTH SPECIFIED TOPSOIL IN ALL LANDSCAPE AREAS.
9. PROVIDE A 4' DIAMETER MULCH CIRCLE AROUND ALL TREES PLANTED IN LAWN AREAS.
10. REFER TO CIVIL DEMOLITION DRAWINGS AND SPECIFICATIONS FOR REMOVAL REQUIREMENTS AND PROTECTION FENCING AROUND EXISTING VEGETATION.
11. REFER TO TREE PRESERVATION PLANS FOR SCHEDULE OF EXISTING TREES TO BE SAVED OR REMOVED.
12. REFER TO CIVIL PLANS FOR NEW UTILITY WORK. CONTRACTOR RESPONSIBLE FOR PATCH AND REPAIR OF ALL EXISTING LANDSCAPE AREAS DISTURBED BY CONSTRUCTION WORK UNDER THIS CONTRACT.
13. REFER TO PLANTING AND SEEDING SPECIFICATION FOR ADDITIONAL REQUIREMENTS, INCLUDING EXTENDED MAINTENANCE REQUIREMENTS.

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nacarchitecture.com
2025 FIRST AVE | SUITE 300
SEATTLE WA 98121
P:206.441.4522

NAC NO 121-20005
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PLANTING SCHEDULE & DETAILS

L1.01

N SHELTON SPRINGS RD

SCALE: 1"=20'-0"

0' 10' 20' 40' 80'

N

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IRRIGATION PLAN

L2.00

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IRRIGATION LEGEND (SYMBOLS SHOWN AT 1"=20'-0")

SYMBOL	ITEM	MANUFACTURER / CAT NO.	DESCRIPTION-REMARKS
	CONTROLLER	RAINBIRD ESP-[24-48]-LXME	[24-48] STATION CONTROLLER, WALL MOUNT INSIDE BUILDING IN LOCATION AS SHOWN ON PLAN. VERIFY WITH ARCHITECT. INSTALL PER DETAIL '__', SHEET L2.5.
	AUTOMATIC RAIN SHUTOFF	RAINBIRD WR2-RFC	WIRELESS RAIN/FREEZE SENSOR WITH MOUNTING BRACKET, MOUNT ON ROOF PARAPET IN LOCATION SHOWN ON PLAN. OPERATION WILL BE TESTED AT PUNCH LIST REVIEW.
NO SYMBOL	CONTROL WIRES	#14 CONTROL AND SPARE WIRES, NO MULTI-STRAND.	SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.
	IRRIGATION METER AND STUB-OUT		APPROXIMATE LOCATION, SEE CIVIL DRAWINGS.
	POINT OF CONNECTION		SEE PLAN ENLARGEMENT ON DETAIL 'X', SHEET LX.X.
	GATE / SHUTOFF VALVE	NIBCO T-113-K GATE VALVE (2"), OR APPROVED EQUAL.	200 PSI THREADED ENDS, BRONZE, SCREW IN BONNET, NON-RISING STEM, SOLID WEDGE, INSTALL PER DETAIL 'G', SHEET L2.5.
	BACKFLOW PREVENTER	FEBCO 850U (2")	DOUBLE CHECK VALVE. INSTALL PER DETAIL 'G', SHEET L2.5.
	STRAINER	WILKINS SXL CAST BRONZE 'Y' STRAINER (2")	INSTALL AT POINT OF CONNECTION AS PER DETAIL 'G', SHEET L2.5.
	PRESSURE REDUCING VALVE	WILKINS 500-XL PRESSURE REDUCING VALVE (2")	INSTALL AT POINT OF CONNECTION AS PER DETAIL 'G', SHEET L2.5.
	MANUAL DRAIN	CHAMPION 300RS-200 ANGLE VALVE (2")	INSTALL AT POINT OF CONNECTION AND ELSEWHERE AS SHOWN ON PLAN, AS PER DETAILS 'E' AND 'G', SHEET L2.5.
	QUICK COUPLER	RAINBIRD #5RC 55K-1 KEY SH-2 SWIVEL HOSE ELL	INSTALL AT P.O.C. AND ELSEWHERE AS SHOWN ON PLAN, PER DETAILS 'D' AND 'G', SHEET L2.5. PROVIDE (2) KEYS AND (2) ELLS.
	MASTER VALVE	RAINBIRD 200-EFB-CP SERIES VALVE (2")	BRASS NORMALLY CLOSED MASTER CONTROL VALVE. INSTALL AT P.O.C. ASSEMBLY PER DETAIL 'G', SHEET L2.5.
	FLOW SENSOR	RAINBIRD FS-150-P (1-1/2")	PLASTIC FLOW SENSOR. FOR DECODER SYSTEM, INSTALL AND CONNECT TO CONTROL WIRE WITH SD210TURF SENSOR DECODER. INSTALL AT P.O.C. PER DETAIL 'D', SHEET L2.4.
	ISOLATION VALVE	BALL VALVE (2"), NIBCO T-580-A, OR APPROVED EQUAL.	BRASS BALL VALVE, INSTALL PER DETAIL 'G', SHEET L2.4, SEE SPECIFICATIONS, SIZE TO MATCH MAINLINE SIZE.
	CONTROL VALVE	RAINBIRD XXX-PEB-PRS-D 100- (1"), 150- (1-1/2"), 200- (2")	PLASTIC CONTROL VALVE WITH PRESSURE REGULATING DIAL, INSTALL PER DETAIL 'B', SHEET L2.5.
	VALVE NUMBER VALVE SIZE GALLONS PER MINUTE	SEE VALVE SCHEDULE	
NO SYMBOL	VALVE BOXES	SPECIFICATION GRADE (COMMERCIAL GRADE) VALVE BOXES AND EXTENSIONS.	SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.
	MAINLINE	PVC-SCHEDULE 40	2-1/2" MINIMUM SIZE UNLESS NOTED OTHERWISE, SEE SPECIFICATIONS FOR MINIMUM BURIAL DEPTH. SEE DETAIL 'B', SHEET L2.5.
	LATERALS	PVC-SCHEDULE 40	SIZE AS PER PLAN, 3/4" MINIMUM. UNLABELED PIPE SECTIONS TO MATCH THE LARGEST OF THE ADJACENT PIPES. UNLABELED PIPE AT THE END OF LATERAL RUNS TO BE 3/4". SEE SPECIFICATIONS FOR MINIMUM BURIAL DEPTH. SEE DETAIL 'B', SHEET L2.5.
	SLEEVES	PVC-SCHEDULE 40	UNDERPAVEMENT SLEEVING, 4" DIAMETER UNLESS OTHERWISE INDICATED ON PLAN. TO BE INSTALLED BY LANDSCAPE CONTRACTOR AT DEPTHS SPECIFIED. SEE DETAIL 'B', SHEET L2.5.
	SPRAY HEAD	RAINBIRD 180X-SAM-PRS-15 SERIES HE-VAN (1804 - LAWN, 1806 - SHRUB)	30 PSI ADJUST RADIUS AS REQUIRED, INSTALL PER DETAIL 'B', SHEET L2.4.
	SPRAY HEAD	RAINBIRD 180x-SAM-PRS-12 SERIES HE-VAN (1804 - LAWN, 1806 - SHRUB)	30 PSI ADJUST RADIUS AS REQUIRED, INSTALL PER DETAIL 'B', SHEET L2.4.
	SPRAY HEAD	RAINBIRD 180x-SAM-PRS-10 SERIES HE-VAN (1804 - LAWN, 1806 - SHRUB)	30 PSI ADJUST RADIUS AS REQUIRED, INSTALL PER DETAIL 'B', SHEET L2.4.
	SPRAY HEAD	RAINBIRD 180X-SAM-PRS-8 SERIES HE-VAN (1804 - LAWN, 1806 - SHRUB)	30 PSI ADJUST RADIUS AS REQUIRED, INSTALL PER DETAIL 'B', SHEET L2.4.
	SPRAY HEAD	RAINBIRD 180X-SAM-PRS-5 SERIES MPR (1804 - LAWN, 1806 - SHRUB)	30 PSI ADJUST RADIUS AS REQUIRED, INSTALL PER DETAIL 'B', SHEET L2.4.
	SPRAY HEAD	RAINBIRD 180X-SAM-PRS-15 STRIP SERIES MPR (1804 - LAWN, 1806 - SHRUB)	30 PSI ADJUST RADIUS AS REQUIRED, INSTALL PER DETAIL 'B', SHEET L2.4.
	SPRAY HEAD	RAINBIRD SQ ADP 24 W/ SQ SERIES NOZZLE (1804 - LAWN, 1806 - SHRUB)	30 PSI ADJUST RADIUS AS REQUIRED, INSTALL PER DETAIL 'B', SHEET L2.4.
	TEMPORARY IRRIGATED AREAS		ABOVE GROUND LATERAL PIPING WITH ROTOR AND SPRAY SPRINKLER HEADS. INSTALL BATTERY POWERED CONTROL VALVE AT QUICK COUPLER LOCATIONS DURING PLANT ESTABLISHMENT PERIOD. AFTER ESTABLISHMENT PERIOD IS OVER, REPLACE VALVES WITH QUICK COUPLER ASSEMBLIES. REMOVE ALL TEMPORARY LATERAL PIPING AND SPRINKLERS FROM THE SITE AT THE END OF THE MAINTENANCE PERIOD. SEE SPECIFICATIONS FOR MORE INFORMATION.

IRRIGATION NOTES:

1. ADJUST ALL IRRIGATION HEADS TO PROVIDE MAXIMUM COVERAGE, MINIMUM OVERSPRAY, AND NO FOGGING. SET ALL HEADS BACK FROM CURBS, PAVING, AND WALLS. SPRINKLER HEADS SHALL BE INSTALLED WITH 6" OFFSET FROM BACK OF PAVING OR CURB EDGES, AND 12" OFFSET WHERE CAR BUMPERS WILL OVERHANG.
2. LOCATION OF IRRIGATION MAINLINE, LATERALS, AND SLEEVING ARE SCHEMATIC ONLY, AND SHALL OCCUR IN PLANTING AREAS UNLESS SLEEVING IS SHOWN. IF SLEEVES ARE SHOWN THEY ARE TO BE STRAIGHT RUNS, TYP. MAKE MINOR CHANGES TO COORDINATE WITH ACTUAL AS-BUILT DIMENSIONS AND CONDITIONS.
3. VALVE BOXES SHALL BE LOCATED IN SHRUB PLANTING AREAS ONLY. LOCATE IN APPROXIMATE LOCATIONS AS SHOWN ON PLAN.
4. SEE CIVIL PLANS FOR LOCATION OF IRRIGATION STUB-OUT FROM __" METER.
5. ANTICIPATED AVAILABLE STATIC WATER PRESSURE IS +/-__ PSI, AS PROVIDED BY _____ ON _____. VERIFY EXACT PRESSURE AT POINT OF CONNECTION PRIOR TO START OF WORK.
6. THE IRRIGATION SYSTEM HAS BEEN DESIGNED WITH SEPARATE HYDROZONES ACCORDING TO THE NEEDS OF THE PLANT MATERIAL. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO PROVIDE A MINIMUM AVERAGE DISTRIBUTION UNIFORMITY OF 0.625. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO AVOID RUNOFF, LOW HEAD DRAINAGE, AND OVERSPRAY. AVOID IRRIGATION DURING TIMES OF HIGH WINDS, WHEN RAINING, OR DURING THE MIDDLE OF THE DAY.
7. LATERAL PIPE SIZE SHALL BE AS NOTED ON PLAN. UNLABELED SECTIONS SHALL MATCH THE SIZE NOTED OF THE ADJACENT UPSTREAM PIPE. MINIMUM PIPE SIZE AT END OF LATERAL RUNS SHALL BE 3/4".
8. WHERE IRRIGATION PIPING IS SHOWN ADJACENT OR UNDER EXISTING TREES, MAKE MINOR ROUTE ADJUSTMENTS TO AVOID TRENCHING THROUGH LARGE TREE ROOTS. REFER TO SPECIFICATION SECTION 328000 FOR FURTHER INSTRUCTIONS.
9. REFER TO IRRIGATION SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

REVISIONS

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NAC ARCHITECTURE
nacarchitecture.com
2025 FIRST AVE | SUITE 300
SEATTLE WA 98121
P:206.441.4322

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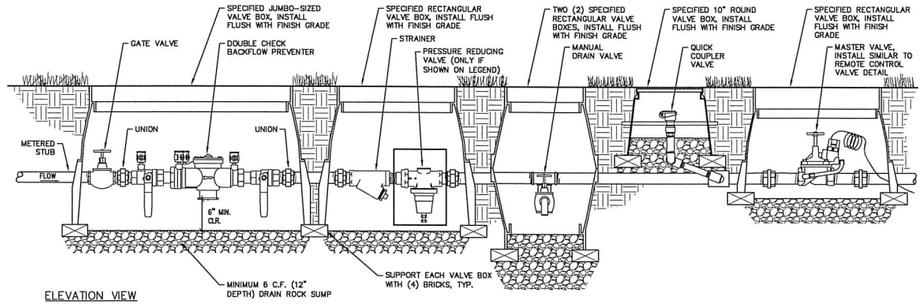
IRRIGATION SCHEDULE & NOTES

L2.01

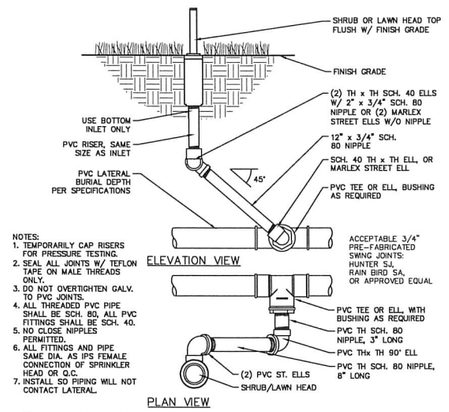


ELEVATION VIEW

NOTES:
1. PROVIDE ONE QUICK COUPLER AT P.O.C. AND ELSEWHERE AS SHOWN ON PLAN.
2. INSURE POSITIVE DRAINAGE FROM P.O.C. COMPONENTS. PROVIDE DAYLIGHT DRAIN AS NECESSARY.
3. PROVIDE SIZE & QUANTITY OF VALVE BOXES AS NECESSARY TO ACCOMMODATE ALL COMPONENTS.

1 POINT OF CONNECTION (WITH DOUBLE CHECK VALVE)

Scale: 1 1/2"=1'-0"



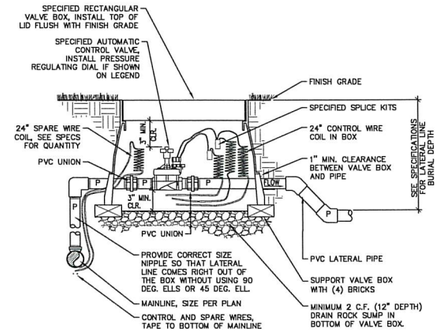
NOTES:
1. TEMPORARILY CAP RISERS FOR PRESSURE TESTING.
2. SEAL ALL JOINTS W/ TEFLON TAPE ON MALE THREADS ONLY.
3. DO NOT OVERTIGHTEN GALV. TO PVC JOINTS.
4. ALL THREADED PVC PIPE SHALL BE SCH. 80, ALL PVC FITTINGS SHALL BE SCH. 40.
5. NO CLOSE NIPPLES PERMITTED.
6. ALL FITTINGS AND PIPE SAME DIA. AS IPS FEMALE CONNECTION OF SPRINKLER HEAD OR Q.C.
7. INSTALL SO PIPING WILL NOT CONTACT LATERAL.

ELEVATION VIEW

PLAN VIEW

2 IRRIGATION HEAD

Scale: 3"=1'-0"

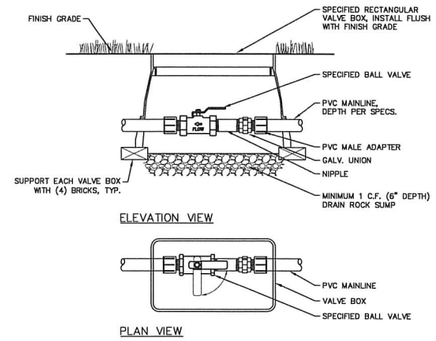


ELEVATION VIEW

NOTE:
PROVIDE VALVE BOX EXTENSIONS AS REQUIRED.

3 REMOTE CONTROL VALVE

Scale: 1 1/2"=1'-0"



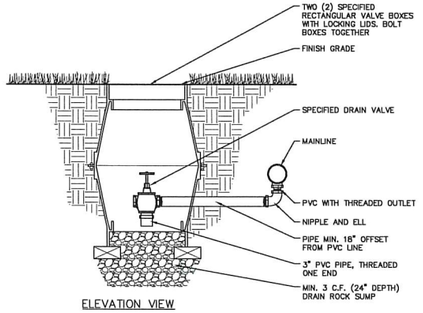
ELEVATION VIEW

PLAN VIEW

NOTES:
1. BOX TO BE INSTALLED AS TO ALLOW FOR PROPER OPERATION OF BALL VALVE. INSTALL AT RIGHT ANGLE TO HARDSCAPE EDGE, INSTALL VALVE OFF-CENTER IN BOX.
2. INSTALL VALVE BOX EXTENSIONS AS REQUIRED FOR PROPER VALVE INSTALLATION AT MAINLINE DEPTH.

4 ISOLATION / SHUT-OFF VALVE

Scale: 1 1/2"=1'-0"

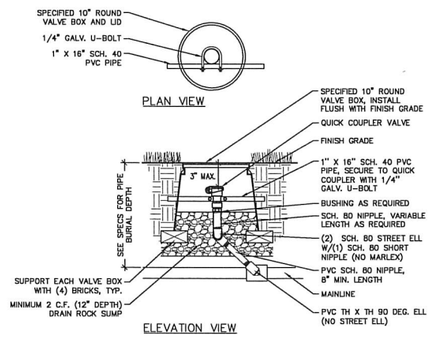


ELEVATION VIEW

NOTES:
1. ALL PIPE AND FITTINGS TO BE SAME DIA. AS I.P.S. FEMALE CONNECTION TO DRAIN VALVE.
2. INSTALL ONE MANUAL DRAIN VALVE AT LOWEST POINT OF MAINLINE ON SITE, SUBJECT TO REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

5 MANUAL DRAIN VALVE

Scale: 1 1/2"=1'-0"



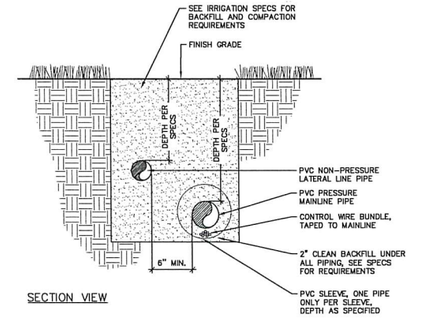
PLAN VIEW

ELEVATION VIEW

NOTES:
1. ALL THE FITTINGS AND PIPE TO BE SAME DIA. AS IPS FEMALE CONNECTION OF QUICK COUPLER.
2. QUICK COUPLER KEY MUST CLEAR VALVE BOX.

6 QUICK COUPLER VALVE

Scale: 1 1/2"=1'-0"

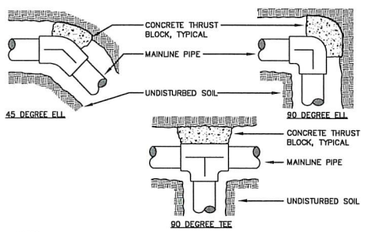


SECTION VIEW

NOTES:
1. NO OTHER TRADES (ELECT. LIGHTING) ALLOWED TO USE SAME TRENCH AS IRRIGATION PIPE.
2. PROVIDE 24" COVER FOR DIRECT BURIAL CABLE.
3. PROVIDE PVC SCH. 40 SLEEVES FOR ALL WIRING AND PIPING UNDER PAVING.
4. NO STACKING (VERTICALLY) OF PIPES IN SAME TRENCH.

7 PIPE TRENCHING AND BACKFILL

Scale: 1 1/2"=1'-0"

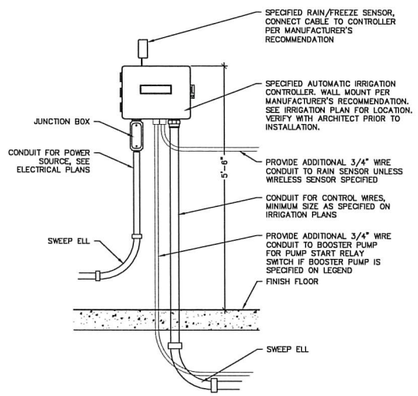


90 DEGREE TEE

NOTES:
1. THRUST BLOCKS SHALL BE INSTALLED WHERE THE IRRIGATION MAIN AND LATERAL (2-1/2" AND LARGER) CHANGES DIRECTION, AS AT ELLS AND TEES AND THE IRRIGATION MAIN TERMINATES.
2. PRESSURE TESTS SHALL NOT BE MADE FOR A PERIOD OF 36 TO 48 HOURS FOLLOWING THE COMPLETION OF POURING OF THE THRUST BLOCKS.
3. CONCRETE THRUST BLOCKS FOR THESE LINES SHALL BE SIZED AND PLACED AND SECURED IN STRICT ACCORDANCE WITH THE PIPE MANUFACTURER'S SPECIFICATIONS, AND SHALL BE OF AN ADEQUATE SIZE AND SO PLACED TO TAKE ALL THRUST CREATED BY THE MAXIMUM INTERNAL WATER PRESSURE.
4. THRUST BLOCKS SHALL BE MIN. 1 CUBIC FT OF CONCRETE. PIPE SHALL NOT BE ENCASED IN CONCRETE.

8 THRUST BLOCKING

NTS



9 IRRIGATION CONTROLLER (INTERIOR WALL MOUNT)

Scale: 3/4"=1'-0"

REVISIONS

SPECIAL USE PERMIT SUBMITTAL

SHELTON SCHOOL DISTRICT
SHELTON HIGH SCHOOL - MET ACADEMY
3731 NORTH SHELTON SPRINGS RD, SHELTON, WA 98584

WEISMANDESIGNGROUP

NAC ARCHITECTURE
nacarchitecture.com
2025 FIRST AVE | SUITE 300
SEATTLE WA 98121
P:206.441.4522

NAC NO	121-20005
DRAWN	TC
CHECKED	AR
DATE	11/2/20

IRRIGATION DETAILS

L2.01

Attachment 4

Airport Overlay Zones Survey (2 Sheets)

SITE PLAN
FOR
SHELTON SCHOOL DISTRICT
IN
SECTION 12, TOWNSHIP 20 NORTH, RANGE 4 WEST, W.M.

ZONE 3

ZONE 4

ZONE 6

ZONE 2

ZONE 1

ZONE 5

APPROXIMATE ELEVATION OF 50:1 SLOPE 90° TO REFERENCE POINT AT SCHOOL 334.54'

SEE DETAIL SHEET TWO

BEGINNING OF 50:1 APPROACH SURFACE PER "RUNWAY 23 APPROACH SURFACE PLAN & PROFILE" BY CENTURY WEST DATED 2-05-2013 ELEVATION 273'

"SANDERSON" MONUMENT ID 5500 CONCRETE MONUMENT WITH DISK ELEVATION = 273.90

S 71°19'33" W 4339.05

"AZ MARK" CONCRETE MONUMENT WITH DISK

N 69°19'48" E 4047.33

CENTERLINE OF RUNWAY PER FOUND CASED MONUMENTS

250'

END OF RUNWAY 25.00' PAST CASED MONUMENT PER NAVY LAYOUT PLANS AND 2 EARLIER VERSIONS ELEVATION = 273'

POINT OF REFERENCE

SHELTON HIGH SCHOOL LIBRARY

UPPER EAVE ON BUILDING AT SCHOOL 259'

EDGE OF ZONE 3 PER CAD FILES PROVIDED BY PORT OF SHELTON

MERIDIAN WASHINGTON STATE COORDINATE SYSTEM NAD 83/11 SOUTH ZONE

LEGEND

- FOUND CONCRETE MONUMENT
- FOUND CASED MONUMENT

NOTE:
ZONE CONFIGURATION CAD FILES PROVIDED BY PORT OF SHELTON AND OVERLAYED ONTO THIS MAP FOR ILLUSTRATIVE PURPOSES.

VERTICAL DATUM
NAVD 1988

SCALE: 1"=200 FEET
0 100 200 400

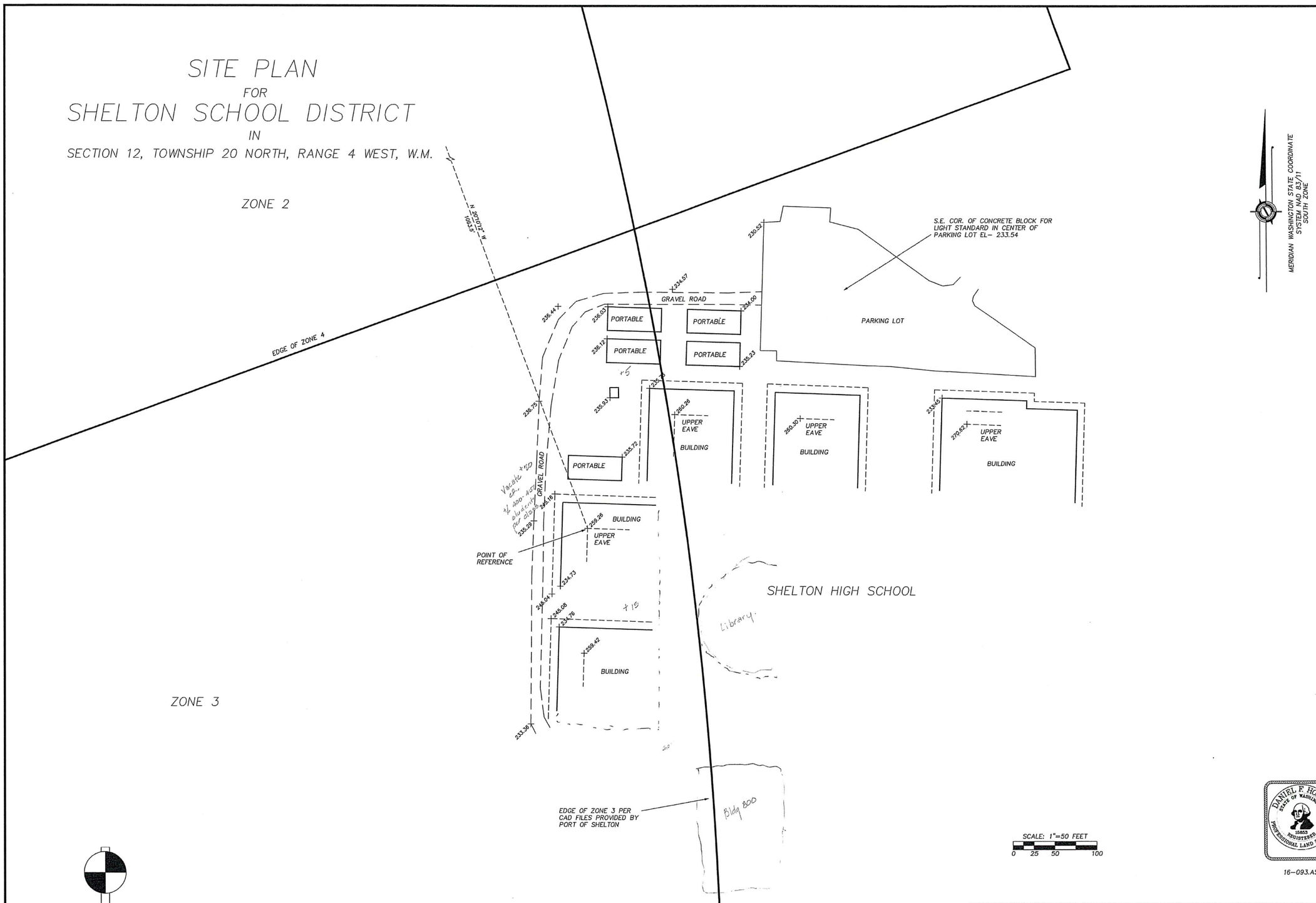
DANIEL E. HOLMAN STATE OF WASHINGTON 18963 REGISTERED PROFESSIONAL LAND SURVEYOR

16-093.ASC

DESIGNED	SCALE	JOB NUMBER	HOLMAN & ASSOCIATES PROFESSIONAL LAND SURVEYORS
DRAWN RNS	1" = 200'	16-093	P.O. BOX 2379 SHELTON, WA 98584 (360) 426-2992 PHONE HOLMAN@HCTC.COM
CHECKED DCH	FIELD BOOK	DATE AUG 2016	DRAWING NUMBER 16-093.DWG
APPROVED			SHEET 1 OF 2

SITE PLAN
FOR
SHELTON SCHOOL DISTRICT
IN
SECTION 12, TOWNSHIP 20 NORTH, RANGE 4 WEST, W.M.

ZONE 2



MERIDIAN WASHINGTON STATE COORDINATE SYSTEM NAD 83/11 SOUTH ZONE

SCALE: 1"=50 FEET
0 25 50 100

VERTICAL DATUM
NAVD 1988

DANIEL F. HOLMAN
STATE OF WASHINGTON
16853
REGISTERED
PROFESSIONAL LAND SURVEYOR

16-093.ASC

DESIGNED	SCALE	JOB NUMBER	HOLMAN & ASSOCIATES PROFESSIONAL LAND SURVEYORS P.O. BOX 2379 SHELTON, WA 98584 (360) 426-2990 PHONE HOLMAN2HCTC.COM	DRAWING NUMBER
DRAWN RNS	1" = 50'	16-093		16-093 S2.DWG
CHECKED DCH	FIELD BOOK	DATE		SHEET 2 OF 2
APPROVED		AUG 2016		

City of Shelton Department of Community Development

STAFF REPORT

January 18, 2021

Project Name: **Shelton High School Modernization and Expansion**

Application No: Site Plan Review Permit Number 03-20 (SPR 03-20) and Special Use Permit Number 01-20 (SUP 01-20)

Applicant: Shelton School District Number 309
Attention: Robert Herron
700 South First Street
Shelton, WA 98584

Applicant's Agent: AHBL
Attention: Lisa Klein
2215 North 30th Street, #200
Tacoma, WA 98403

Project Location: 3737 North Shelton Springs Road, Shelton, WA 98584
Assessor's Parcel Number: 42012-41-60000

Request: Site Plan Review and Special Use Permit to authorize Addition of a Manufacturing, Engineering, and Technology (MET) Vocational Academy Building including associated parking and landscaping.

Related Files: Shelton School District Number 309 acted as SEPA lead agency for the proposal and issued a Determination of Nonsignificance for the proposal on December 17, 2020 (See Attachment ?????).

Staff Report Available: January 19, 2021

Public Hearing Date: January 25, 2021 @ 10:30 a.m. in the City of Shelton Civic Center. ******Due to COVID-19 Restrictions on gatherings the public hearing is being held remotely (via Zoom).**

Environmental Determination: The Shelton School District operated as SEPA lead agency relative the proposal. The SEPA responsible official issued a Notice of SEPA Consultation on November 5, 2020 to solicit comments. The SEPA responsible official issued a threshold Determination (Determination of Nonsignificance) (DNS) on December 17, 2020. The threshold Determination was mailed to agencies on the same date. A copy of the DNS is attached to this report. No appeals were filed and SEPA determination is final. The City of Shelton cooperated with the District during the preparation of the environmental checklist for the proposal and concurred with the determination provided by the District.

Public Notice: City staff published a public hearing notice in the Shelton Journal on January 14, 2021 and January 21, 2021, mailed notice to property owners within 300 feet of the subject site, including the Port of Shelton, on January 14, 2021, and posted public hearing notices near the entrance to the Shelton High School Staff Parking lot on January 14, 2021. Staff also e-mailed Port of Shelton staff copies of the public hearing notice and proposed project plans on

Site Description and Background:

The project site is located in the Northeast portion of Shelton to the north of Wallace Kneeland Boulevard, to the west of Shelton Springs Road, and just east of Oakland Bay Junior High School. The bulk of the existing facility was built in the 1970's with the site experiencing significant upgrades in the last three years though addition of a 3-story 46,000 (+/-) Academic Building, expansion to the "Mini Dome" (expansion of a weight room and wrestling room), addition of a 6,998 square foot auxiliary gymnasium, rehabilitation of the existing site playfields (Baseball, Fastpitch, Football/Soccer, and track), and total reconfiguration and rehabilitation of the existing student parking lot. The Shelton High School campus/property encompasses nearly 37 acres and contains several existing buildings totaling approximately 233,000 square feet of space. The site is accessed via three existing driveway entrances from North Shelton Springs Road and a common looped driveway from Oakland Bay Junior High School/Wallace Kneeland Boulevard.

The District's intent with the proposed addition is to expand the offering's to students relative to vocational interests and provide additional options for students to consider as

they experience/experiment with different skillsets and determine future life goals and career paths.

Project Description:

The Shelton School District requests a Site Plan Review Permit and Special Use Permit to authorize the expansion of the Shelton High School to include a Manufacturing, Engineering, and Technology (MET) academy that is intended to help prepare students for careers that require skills in areas such as; construction, welding, auto repair, electronics, mechatronics, engineering/CAD operation, as well as other skills. The total proposal would add approximately 15,000 square feet of classroom space and two 1,750 square foot portable classrooms (18,500 square feet total). The proposal would relocate and reconfigure the existing staff parking lot as well as removal/relocation of three existing portable classrooms (currently located in Zone 3 of the Airport Overlay Zones). The proposal would be constructed in phases with Phase 1 being specifically considered (relative to Site Plan Review) at this time, though the SEPA review and Special Use Permit request considers the entire, phased, proposal. The intent is that each subsequent phase would be considered under separate Site Plan Review permitting through the City of Shelton but that, for the purposes of SEPA review and Special Use Permit consideration, the intent is that this review/permitting would cover all phases of the proposal. The major facets of the entire, phased, proposal are as follows (see also the applicant's written description/request and project plans attached to this report):

Phase 1. Phase 1 of the proposal, to be constructed as soon as possible, includes the construction of a new 3,400 square foot metal frame classroom building which would include a core shop, restrooms, and mechanical platform. The phase would construct a 10-foot wide concrete walkway around the building and include bioretention cells and infiltration trench(es) for the building roof runoff. Three existing portables, all located in Airport Overlay Zone 3, would be removed as part of the phase. The existing staff parking lot would be reconfigured, resulting in 95 staff parking spaces (down from 99) but configured in a more user-friendly manner and upgraded to City standards with paving, storm water improvements, lighting, and landscaping. The areas slated for additional structures, associated with the MET phasing, will be pre-graded/leveled and planted with grass. Landscaping will be provided in the new parking area as well as along the street frontage of Shelton Springs Road. The proposed MET structure would stand approximately 26 feet tall (at top of parapet) and be sided with varied metal siding to create an aesthetic of a somewhat separate, "industrial", feel to the area. All rooftop mechanical equipment would be screened by the parapet. *It is anticipated that future phases, to be attached to the Phase 1 MET structure, would very closely mimic the height and aesthetic of the initial, phase 1, structure. It's understood that the proposed portable classrooms, associated with Phase 2B, will have a different aesthetic common to portable classrooms.*

Phase 2A. Phase 2A proposes to add a 5,800 square foot building/addition to the west of the Phase 1 building, replacing the lawn that's proposed to be installed in phase 1.

Phase 2A is anticipated to house classrooms associated with the welding and mechanical trades.

Phase 2B. Phase 2B proposes to replace two portable classrooms removed during Phase 1. The portables are expected to total 3,500 square feet between the two and be located in an open area to the south of Phase 1, to the east of existing building 1200 (Music Building) and to the west of Building 300 (Social Studies Building).

Phase 3. Phase 3 proposes to construct a 5,800 square foot addition to the east of the Phase 1 and is anticipated to house a wood shop classroom and covered work area.

All storm water associated with all phases is anticipated to be fully infiltrated on-site in compliance with City of Shelton and State of Washington requirements for treatment and conveyance of storm water.

Neighborhood Characteristics

The High School and associated playfields as well as the adjacent Oakland Bay Junior High campus can largely be considered on their own "island", in a sense. The use is surrounded by Arterial Streets (Wallace Kneeland Boulevard and Shelton Springs Road), forested land to the north, south, and east. There are residential uses to the northeast of the High School along Shelton Springs Road and heavy commercial uses to the northwest on Wallace Kneeland Boulevard and a new YMCA facility is currently being constructed on land to the south of the site. There are comprehensive walking trails and sidewalks on each of the streets near and around the campus.

Land Use and Compatibility Analysis

The City of Shelton Comprehensive Plan and Zoning/Land Use Map identifies the project site and surrounding areas as being within the Medical/Educational District (ME) zone. Both designations allow and encourage public uses, including schools.

COMPREHENSIVE PLAN. The City of Shelton Comprehensive Plan is intended, in part, to provide direction to policy and decision makers so that all land use decisions consistently move the City toward the future "vision" desired by its citizens. The adopted Comprehensive Plan identifies the subject property as lying completely within the Medical/Educational Land Use designation is described as follows:

> ***City of Shelton Comprehensive Plan (2017) Page II-9***
> ***Medical/Educational Areas*** *– The Medical/Educational (ME) District is intended to provide for the recognition of parcels and facilities currently in use, or planned for, where the primary function is to provide services including public and private educational institutions as well as public and private health care facilities. This District is intended to provide high levels of pedestrian and transit-oriented services and a safe, pleasant, environment for education and health care. Campus style development should be encouraged in this area.*

The adopted Comprehensive Plan also contains various goal and policy statements which directly pertain to the requested establishment and/or expansion of school facilities, an integral part of our local infrastructure, the most direct and supporting includes:

> ***Goal LU16****. Concentrate medical and education facilities in the Medical/Educational District.*
>
> > ***Policy LU16a.*** *New medical and educational facilities should be directed to the Medical/Educational District.*
> >
> > ***Policy LU16b.*** *The City should revise/create design guidelines to promote campus style development within the Medical/Educational District.*

The City of Shelton's Comprehensive Plan envisions existing and new (where feasible) school facilities to be located within the Medical Educational Zone and, further, the plan encourages campus style development such as is proposed by the district with the anticipated improvements. There are multitudes of other goals and policies relating to traffic circulation, provision of utilities, neighborhood compatibility throughout the plan that, in staff's opinion, also support the proposal. Through intelligent and thoughtful design the district has proposed an expansion of the existing campus at the high school while minimizing their impact on the very constrained site.

ZONING. Title 20 of the Shelton Municipal Code (SMC) codifies the city's zoning regulations, applicable to all properties within the City of Shelton. The subject property is zoned Medical Educational, as codified in Chapter 20.22 of the SMC. The zone specifically allows educational uses, including schools, outright within the zone. The intent of which reads as follows:

> ***20.22.010 Intent***
> *The medical/educational (ME) district is intended to provide for the recognition of parcels and facilities currently in use, or planned for, where the primary function is to provide services including public and private educational institutions as well as public and private health care facilities. This district is intended to provide high levels of pedestrian and transit-oriented service and a safe, pleasant environment for education and health care.*

The section goes on to stipulate the basic development requirements in the zone including setbacks, height, and lot coverage. The following table compares the proposed development in relation to the minimum development standards of the chapter:

Development Standard	Min/Max Required (incl. code ref.)	Proposed
Front Yard Setback	10 feet min (SMC 20.22.040B)	35 feet (+/-), to nearest property line, Project Complies
Side Yard Setback	5 feet min (side)/10 feet min (street side) (SMC 20.22.040C)	35 (+/-) feet to nearest property line, Project Complies
Rear Yard Setback	10 feet minimum (SMC 20.22.040D)	35 (+/-) feet to nearest property line, Project Complies
Maximum Building Height	35 feet maximum (SMC 20.22.040E)	26 feet in height. Project complies.

On-site Parking	1 parking space per employee plus one per 5 nonbussed students, minimum (SMC 20.40.100)	405 total on-site parking spaces (post project), The school has 150 employees and approximately 600 non-bussed students which requires a total of 270 on-site parking spaces (minimum), Project Complies.
Building Coverage	Maximum Building Coverage – 35% / Maximum Development Coverage – 65%	The Existing Building Footprint/coverage is approximately 260,000 square feet (16.2%) with an additional 18,500 square feet (approximately) proposed which would bring the site to, 17.4% building coverage. The existing Development Coverage is 879,036 square feet (54.8%) and 873,290 square feet (54.4%) proposed. Project Complies.

Staff Finding: The proposed development meets all required standards relative to the Medical Educational Zone inherent to the zone.

Chapter 20.60 of the Shelton Municipal Code codifies the City's requirements for landscaping for new projects within City limits. In the case of the proposed action staff contends that the applicant's proposed landscaping in impacted areas complies with the requirements of the Chapter. However, staff notes that the existing parking lot (used for staff parking), which is proposed to remain in places (though slated to be restriped) provides a great deal of the street frontage appearance along that portion of the site. Section 20.60.150 of the Shelton Municipal Code codifies the requirements for parking lots within City limits. The existing staff parking lot does not meet the landscaping requirements in the code for new parking lots. Given the substantial renovation and reconfiguration of this portion of the campus proposed in connection with the MET development, staff recommends a condition which would require that the district work with City staff to come up with a plan that includes additional landscaping in the proposed parking lot "loop" area along Shelton Springs Road. Specifically, the areas identified to be painted/striped should be incorporated into landscaped "islands" that include placement of trees. This would create a more welcoming appearance and bring the site into compliance with the requirements of the Shelton Municipal Code.

Chapter 20.70 of the Shelton Municipal Code codifies the City's Airport Overlay Zones and Regulations. The intent of the regulations is as follows:

20.70.020 Purpose and intent.

A. Purpose. The airport overlay zone regulations have two fundamental purposes:

1. To minimize the public's exposure to excessive noise and safety hazards that would result from incompatible land use development around Sanderson Field; and

2. To protect Sanderson Field from potential encroachment by land uses that are incompatible with airport activities and that may impair the planned development and use of the airport.

B. Intent. The intent of this chapter is to:

1. Implement policies of the city of Shelton's comprehensive plan and the Port of Shelton, Sanderson Field Airport Master Plan.

2. Establish land use zoning regulations around Sanderson Field that are specifically designed to address issues of compatibility between the airport and surrounding land uses. Regulations are established with respect to compatible land use, noise, safety, and height limits (airspace protection).

The subject site lies over a half mile, approximately 3,300 feet, to the east/southeast of Sanderson Field, a Regional Public Use Airport operated by the Port of Shelton. The site is identified by the City's Airport Overlay Regulations and associated maps as being located on the far southeast portion of Airport Overlay Zone Number 3 (Inner Turning Zone) as well as the bulk of the site being located within Airport Overlay Zone Number 6 (Traffic Pattern Zone). The Inner Turning Zone is a location in the traffic pattern where flights are making final landing approach turns (if landing) or beginning their exit turns out of the traffic pattern (if taking off). The traffic pattern zone is an area which can expect regular airport overflight traffic as aircraft either enter or exit Sanderson Field airspace.

Schools are identified in the regulations as a "Special Function Land Use". Special Function Land Uses are considered uses that involve large groups of people with the relative inability of persons occupying the space to move out of harm's way. This includes K-12 Schools, nursing homes, hospitals, etc. Shelton Municipal Code Section 20.70.060C addresses Special Function Land Uses as follows:

Special Function Land Use. Special function land uses as defined in 20.70.040(F) shall be prohibited in the land use compatibility zones 1, 2, 3, and 4. New special function land uses are also prohibited in zone 6; however, expansion of such existing uses are conditioned upon review for impacts to the airport through the special use permit provisions of Chapter 20.46, with added performance standards addressing potential noise impacts.

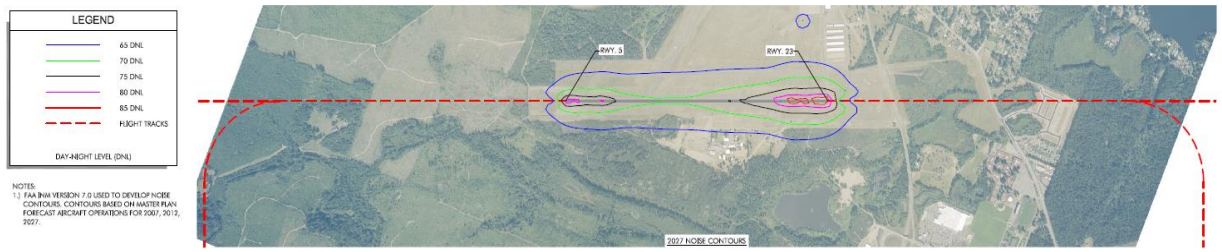
Staff Finding. Pursuant to the section, the City can consider a request for expansion of existing Special Function Land Uses in compliance with Chapter 20.70 (Airport Overlay Regulations) of the Shelton Municipal Code through the Special Use Permit provisions found in Chapter 20.46. While the use of the site as a school (a Special Function Land Use as defined the regulations) was established decades ago, the site was not evaluated for compliance with some of the primary safety and compatibility considerations relative to Airport overflights. As part of the discussion/consideration of expanding the High School Campus in recent years, in particular, City and Port of Shelton staff met with the Shelton School District (the District) early in the development phase of the proposal and, in essence, encouraged the District to pursue abandonment/removal of structures located closer to the Sanderson Field runway in favor of expanding the campus in areas farther away from the projected runway centerline (with the basic logic/premise being that farther away lessens all concerns associate with airport operations). The proposal would eliminate three portable

classrooms, located entirely within zone 3, would be removed from the site. The proposed addition would occur entirely within zone 6 and be situated farther from the projected centerline of the Sanderson Field runway, more in line/clustered with the bulk of the High School buldings. This proposed action is consistent with language in the code (20.70.060G and H) that discusses parcels that lie within multiple overlay zones and in situations where infill development is contemplated. In essence, the code envisions "similar or less intensive land uses may be allowed to occur even if such land uses are not allowed elsewhere in the land use compatibility zone" and it also encourages clustering the development in the overlay zone where more intensive development is allowed (on properties which contain more than one overlay zone) such as the District proposes.

Section 20.70.050B of the Shelton Municipal Code outlines the requirements of the "Airspace Protection Areas" that are established around the airport. Essentially, the requirements paint an invisible "cone" of sorts from the ground level of the Sanderson Field runway and extend outward and upwards as stipulated in the regulations. New development is not allowed to penetrate this invisible surface due to the possibility that aircraft would be flying above that level. The applicant was asked to provide an evaluation of the proposed improvements at the site as it relates to these airspace protection areas. It is contained on page 10-11 of their narrative submitted in conjunction with the Special Use Permit. The study finds that the highest point of the proposed structures are nearly 50 feet below the maximum height level the regulations would allow. As such, the proposal is compliant with Airspace Protection Area requirements.

Section 20.70.060D of the Shelton Municipal Code outlines density limitations for non-residential development within the Airport Overlay Zones. However, the district is willfully eliminating classroom space within identified zone 3 (limited to 25 people per acre for new uses) in favor of constructing the new expanded spaces entirely within zone 6 which does not have any density limitation restrictions. This is reflective of the lessened likelihood of noise, vibration, fumes, accidents, etc. of impacting uses in zone 6 (the zone farthest from the airport and centerline of the runway).

Other considerations when evaluating proposed development in Airport Influence Areas that need to be taken into account are the potential for aircraft noise to be an impact to the use. Staff considers concern to be a nominal impact to uses at the site based on information contained in the Sanderson Field Airport Master Plan which indicates aircraft noise that could be considered harmful to human health is wholly contained on Airport Property. The Port of Shelton updated their Sanderson Field Airport Master Plan in 2012. It includes a comprehensive review of noise generating activities anticipated to occur (primarily airport operations on the site) into the identified planning horizon (2027). The noise contour analysis performed by the Port, with greatly increased airport flights/operations over existing conditions, is provided below:



The dark line which circles the runway is the “65 DNL” noise contour line as it’s anticipated to exist in 2027 with much larger aircraft utilizing the facility. It is important to note that the 65 DNL contour is nearly entirely contained on airport property as shown in the graphic. The 65 DNL threshold is considered the point at which significant impacts occur due to airport operations and mitigation is required. This threshold is the identified level of impact by the Federal Aviation Administration (FAA) as well as this same threshold is identified by the Port of Shelton in their most recent Airport Master Plan (source of the graphic). The contour does not begin to encroach on School properties in question. However, it is also important to note that good site design is also required to fully mitigate potential impacts from aircraft overflights. Staff believes the containment of classrooms within a new structures (rather than multiple single story or portable classrooms as has been the case at the campus) will have much more sound attenuating features than the alternative, thereby very likely lessening the potential for complaints to be logged (against airport operators) or negative impacts to be experienced by the Shelton School District to the learning environment within the building (airplane noise).

Further, the Port of Shelton and the Shelton School District entered into a settlement agreement in 1989 to settle what was then a land use dispute revolving around what was then a new Middle School (now known as Oakland Bay Junior High). The settlement agreement was reached based on the recognition that the needs of both parties were “important and vital to the community, and should be mutually accommodated”. The settlement agreement included an “aviation easement” being granted by the School District to the Port of Shelton over School property (both the Junior High and High School). The District agreed in the document not to oppose future efforts to expand airfield facilities or attract additional users “on the grounds of safety, noise, or incompatibility.” That agreement is still in effect today.

It can be found in nearly all published accident data concerning airport operations that nearly all aviation accidents that occur around airports occur in a line fairly aligned with the runway (at each end). As one ventures farther from the runway centerline and farther from the airport itself accidents become less and less likely. In the case of the proposed addition to Shelton High School, the district proposes to eliminate several classrooms that lie within zone 3 (arguably a more accident prone zone) to an area entirely contained within zone 6 (a less accident prone zone). This would move and keep students even farther from the airport and runway centerline which would lessen an already (statistically) minute chance of aircraft impact on the site.

The applicant has also submitted a narrative in support of their Special Use Permit Request (attached to this staff report). Staff concurs with the discussion provided by the district and incorporates it by reference into the staff report.

Chapter 20.46 of the Shelton Municipal Code contains the provisions for Special Use Permits within City limits. Special Use Permits require a public hearing before the City of Shelton Hearings Examiner who makes a recommendation to the City of Shelton Commission. The standards for consideration of a Special Use Permit are contained in section 20.46.070 and reads as follows (staff response follows each section):

20.46.070 Standards for granting special use permits.
The hearings examiner and city commission shall be guided by the following standards and provisions in granting a special use permit:

A. The use requested by the special use permit shall be within the intent of this title, the comprehensive plan, and the public interest.
Staff Response: The provision of educational facilities is allowed (and encouraged) in the Medical Education Zone both in the City of Shelton Comprehensive Plan (2017) and the City of Shelton Municipal Code. The public interest is well served through follow through with promises made to the public that approved the District's Bond Measure to allow for improvement to the District facilities. .

B. The use requested by the special use permit shall demonstrate that it is consistent with any performance standards applicable to the district in which it is to be placed.
Staff Response: Schools and other accessory educational facilities are allowed and encouraged within the zone itself (Medical Educational Zone). The reason for Special Use Permit and additional evaluation and consideration (Public Hearing) is due to the site's proximity to the airport within Zones 3 and 6 of the Airport Overlay Zones. As previously stated, staff considers the use to be an appropriate expansion and progression of educational uses at the site and within the intent of the Overlay restrictions as the District has, of their own accord, offered to vacate several structures located within Zone 3 (closer to the airport and airport operations) to expand the facility entirely within Zone 6 (farther from the airport and airport operations).

C. The use requested by the special use permit shall be made on the basis of site plans submitted pursuant to Section 20.46.040(D). If the improvements are to be made over a period greater than two years, the time of improvements shall be indicated.

Staff Response: Noted. The noted Phase 1 improvements are slated to begin the Spring/Summer of 2021 and be completed by the beginning of the 2022 school year. The future phases of the proposal are anticipated to occur every two years following as funding becomes available. For this reason, staff is recommending that the Hearings Examiner allow for a four-year lifespan of the Special Use Permit, to allow the district time for funding and design of improvements.

RECOMMENDATION

Staff recommends that the hearings examiner find in favor of the proposal and recommend approval of SPR 03-20 and SUP 01-20 to the City of Shelton City Council subject to the following conditions:

1. Prior to any construction at the site the applicant shall apply for and receive all necessary building permits for construction, demolition, relocation, and

renovation of structures at the site through the City of Shelton Building Department. The proposal is subject to all conditioning of the required building permits required in order to achieve compliance with applicable building, fire, and life safety codes.

2. Prior to any construction at the site the applicant shall apply for and receive Civil Improvement Drawing approval for all utilities, grading and drainage, and right of way permitting as necessary through the City of Shelton Engineering Department. The proposal is subject to all conditioning of the required reviews in order to achieve compliance with applicable City and State requirements.
3. Prior to issuance of any demolition permits and prior to any demolition activities at the site the applicant shall provide the City of Shelton Building Department evidence from the Olympic Region Clean Air Agency (ORCAA), as may be necessary, that appropriate State level air quality regulations have been complied with.
4. All new and/or replaced exterior lighting at the site shall be full cutoff style and "Dark Skies" compliant to prevent glare on adjacent properties. Specifications/Cut Sheets for all fixtures and poles (including height), as applicable, shall be provided to the Department of Community Development for review and approval prior to issuance of building permits. Verification of installation of compliant fixtures will be made prior to final inspection and occupancy of the facility being granted.
5. Additional landscaping area, including trees, shall be provided at the site in compliance with Shelton Municipal Code Section 20.60.140 (Parking Lot Landscaping and Screening) in the interior of the proposed parking lot "loop" area located to the north of the MET structure along the Shelton Springs Road frontage. School District staff and/or the project design team shall work with City staff to develop a landscaping plan for the parking lot area in connection with pending building permits for the proposal.
6. The proposal is subject to all applicable building permit, utility facility charges, and Traffic Impact Fees as may be applicable and as required by the Shelton Municipal Code.
7. This Special Use Permit shall be authorized/approved for a period of four years following final City of Shelton Council action. Any extension/renewal shall be processed in accordance with Chapter 20.46 (Special Use Permit) of the Shelton Municipal Code.
8. All future permit submittals shall closely match the depictions and drawings illustrated and considered in this review except as modified through conditioning of this permit. Deviations from the drawings may result in additional permitting requirements.

Exhibits

1. Applicant's Written Statement in Favor of Special Use Permit and Site Plan Review Request
2. SEPA Determination of Nonsignificance, SEPA Checklist, and Notice of SEPA Consultation
3. Project Plans (10 Sheets)
4. Airport Overlay Zones Survey (2 Sheets)

CITY OF SHELTON
COUNCIL BRIEFING REQUEST
(Agenda Item F5)

Touch Date: 03/09/2021
Brief Date: 03/16/2021
Action Date: 04/06/2021

Department: Finance

Presented By: Aaron BeMiller

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:		**REVIEWED:**
☐	Dept. Head	
☒	Finance Director	03/07/2021
☐	Attorney	
☒	City Clerk	03/08/2021
☒	City Manager	03/08/2021

PROGRAM/PROJECT TITLE:
2021 Master Fee Schedule Update

ATTACHMENTS:
- Resolution No. 1192-0321
- Exhibit A

☐	Ordinance
☒	Resolution
☒	Motion
☐	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

This Resolution updates the City's Master Fee Schedule for 2021. The City Council approved Resolution 1184-1120 on January 19th, 2021 updating the City's Master Fee Schedule but since that time there has been a change in City practice for calendar year 2021 regarding the City's and Central Mason Fire and EMS (CMFE) collaboration regarding fire services.

The City and CMFE entered into an Interlocal Agreement (ILA) beginning January 2021. Part of that agreement included a provision whereby the City would invoice and collect fire related fees on behalf of CMFE and remit those collections to CMFE. It was agreed in February that this particular part of the ILA would be placed on hold until January 2022 so the City and CMFE would have a chance to come to agreement on a process that works for both the City and CMFE. For 2021, the City will pay CMFE a flat monthly charge for their all CMFE services. Exhibit A has been updated to include the fire related fees that the City will charge. These fees are based on the CMFE fee rates adopted by the CMFE Board.

The Resolution will retroactively implement these fire fees to begin January 1, 2021.

ANALYSIS/OPTIONS/ALTERNATIVES:

BUDGET/FISCAL INFORMATION:

PUBLIC INFORMATION REQUIREMENTS:

Information can be obtained from the City Clerk.

STAFF RECOMMENDATION/MOTION:

"I move to adopt Resolution No. 1192-0321 setting the City's Master Fee Schedule for 2021".

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.

ATTEST: _____
Mayor Dorcy

_____
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