



Shelton City Council
Study Session Agenda
October 25, 2022 – 6:00 p.m.
Civic Center & Virtual Platform

A. Call to Order

B. Roll Call

C. Study Agenda

1. Water Comprehensive Plan Update – Presented by City Engineer Ken Gill

D. New Items for Discussion

E. Adjourn

The City of Shelton is committed to the non-discriminatory treatment of all persons in employment and the delivery of services and resources. If you require accommodation for your attendance at the City Council meeting, please call (360) 432-5103 at least 48 hours in advance of the meeting.



2022 Looking Ahead

(Items and dates are subject to change)

<p>Tues. 11/1 5:45 p.m. No KM</p>	<p>Special SMPD Meeting</p>	<p>Consent Agenda</p> <ul style="list-style-type: none"> • Vouchers/Meeting Minutes <p>Business Agenda</p> <ul style="list-style-type: none"> • Public Hearing Resolution No. SMPD 37-0922 2023 Ad Valorem Taxes <p>Action Agenda</p> <ul style="list-style-type: none"> • Administration Report 	<p>Packet Items Due: 10/21 – 5:00 p.m.</p>
<p>Tues. 11/1 6:00 p.m. No KM</p>	<p>Regular Meeting</p>	<p>Consent Agenda</p> <ul style="list-style-type: none"> • Vouchers/Payroll Warrants/Meeting Minutes <p>Presentation</p> <ul style="list-style-type: none"> • Mason County Historical Society Museum 3rd Quarter LTAC Report • Shelton-Mason County Chamber 3rd Quarter LTAC Report • Operation Green Light Proclamation <p>Business Agenda</p> <ul style="list-style-type: none"> • Public Hearing Ordinance No. 1991-0922 2023 Preliminary Budget • Public Hearing Ordinance No. 1992-0922 2023 Regular & Ad Valorem Taxes • Resolution No. 1246-1022 C Street Landfill Cleanup Construction Contract Award <p>Action Agenda</p> <ul style="list-style-type: none"> • Ordinance No. 1993-0922 Amending SMC Ch. 13.02 Related to Stormwater Regulation <p>Administration Report</p> <ul style="list-style-type: none"> • 	<p>Packet Items Due: 10/21 – 5:00 p.m.</p>
<p>Fri. 11/4 8:30 a.m.</p>	<p>Special Meeting</p>	<p>Joint Meeting w/County Commission</p>	<p>N/A</p>
<p>Tues. 11/8 6:00 p.m.</p>	<p>Study Session</p>	<p>Study Agenda</p> <ul style="list-style-type: none"> • Land Use Regulations 	<p>Packet Items Due: 11/4 @ noon</p>
<p>Tues. 11/15 5:45 p.m.</p>	<p>Special SMPD Meeting</p>	<p>Consent Agenda</p> <ul style="list-style-type: none"> • Vouchers/Meeting Minutes <p>Business Agenda</p> <ul style="list-style-type: none"> • <p>Action Agenda</p> <ul style="list-style-type: none"> • Resolution No. SMPD 36-0922 2023 Budget • Resolution No. SMPD 37-0922 2023 Ad Valorem Taxes <p>Administration Report</p> <ul style="list-style-type: none"> • 	<p>Packet Items Due: 11/4 – 5:00 p.m.</p>

Tues. 11/15 6:00 p.m.	Regular Meeting	<p>Consent Agenda</p> <ul style="list-style-type: none"> • Vouchers/Payroll Warrants/Meeting Minutes • September Financial Status Report <p>Presentations</p> <ul style="list-style-type: none"> • Overlook Park Murals LTAC Report <p>Business Agenda</p> <ul style="list-style-type: none"> • Ordinance No. 1994-0922 Parks and Open Space Standards for Development of Land • Community Calendar Policy • Public Hearing Ordinance No. XXXX-XXXX Updates to Shelton Municipal Code - Code Enforcement • Resolution No. 1247-1022 Bostrom Lane Public Utility & Access Easement <p>Action Agenda</p> <ul style="list-style-type: none"> • Civic Center Rotating Art Gallery • Public Hearing Ordinance No. 1991-0922 2023 Budget Adoption • Public Hearing Ordinance No. 1992-0922 2023 Regular & Ad Valorem Taxes • Resolution No. 1246-1022 C Street Landfill Cleanup Construction Contract Award <p>Administration Report</p> <ul style="list-style-type: none"> • 	Packet Items Due: 11/4 – 5:00 p.m.
Tues. 11/22 6:00 p.m.	Study Session	<p>Study Agenda</p> <ul style="list-style-type: none"> • Homelessness Task Force Recommendations • No sit/No lie 	Packet Items Due: 11/18 @ noon
Tues. 12/6 6:00 p.m.	Regular Meeting	<p>Consent Agenda</p> <ul style="list-style-type: none"> • Vouchers/Payroll Warrants/Meeting Minutes <p>Presentation</p> <ul style="list-style-type: none"> • Pacific Coast Shellfish Growers Assn. • Great Bend Center for Music LTAC Report <p>Business Agenda</p> <ul style="list-style-type: none"> • Ordinance No. XXXX-XXXX Council Protocol Manual Revisions <p>Action Agenda</p> <ul style="list-style-type: none"> • Ordinance No. 1994-0922 Parks and Open Space Standards for Development of Land • Community Calendar Policy • Ordinance No. XXXX-XXXX Updates to Shelton Municipal Code - Code Enforcement • Resolution No. 1247-1022 Bostrom Lane Public Utility & Access Easement <p>Administration Report</p> <ul style="list-style-type: none"> • 	Packet Items Due: 11/23 @ 5:00 p.m.
Tues. 12/6 After regular meeting	Special Meeting	<p>Executive Session</p> <ul style="list-style-type: none"> • Performance of a Public Employee 	N/A
Tues. 12/13 6:00 p.m.	Study Session	<p>Study Agenda</p>	Packet Items Due: 12/9 @ noon
Tues. 12/20	Regular Meeting	<p>Consent Agenda</p>	Packet Items Due:

6:00 p.m.		<ul style="list-style-type: none"> • Vouchers/Payroll Warrants/Meeting Minutes Business Agenda <ul style="list-style-type: none"> • Action Agenda <ul style="list-style-type: none"> • Ordinance No. XXXX-XXXX Council Protocol Manual Revisions Administration Report <ul style="list-style-type: none"> • 	12/9 @ 5:00 p.m.
Tues. 12/27 6:00 p.m.	Study Session	Study Agenda	Packet Items Due: 12/23 @ noon

Other – TBD

- UGA/Annexation Policy (Water/Sewer Extensions)
- More Standing Committees by the Council
- Water and Sewer Fee Schedule Revisions (Ordinance removing rates from SMC)
- Public Hearing Ordinance No. 1968-0321 Water Comp Plan Adoption
- Public Hearing Ordinance No. 1990-0522 Amending SMC 17.12
- Resolution No. 1243-0822 Brockdale Road Resurfacing Improvements Project Award

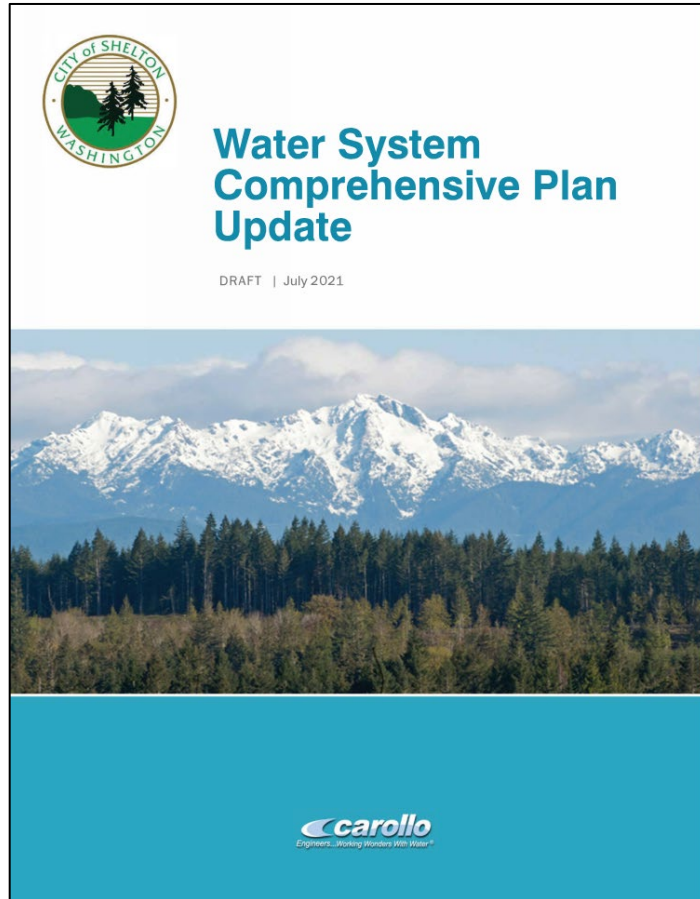
DRAFT

Water System Comprehensive Plan Update

City of Shelton



// Water System Plan was presented to City Council on July 20, 2021



- Chapter 1 – Introduction
- Chapter 2 – Water Requirements
- Chapter 3 – Description of the Water System
- Chapter 4 – Water Conservation Plan
- Chapter 5 – System Analysis
- Chapter 6 – Water Quality
- Chapter 7 – Source Water Protection
- Chapter 8 – Operations and Maintenance
- Chapter 9 – Capital Improvement Program
- Chapter 10 – Financial Plan

// Steps after City Council Presentation

- Plan was sent to agencies and adjacent purveyors for review:
 - Department of Health (DOH) and Department of Ecology (Ecology) provided comments.
 - No local governments or adjacent utilities provided comments.
- State Environmental Policy Act (SEPA) process was completed:
 - Squaxin Island Tribe provided comments on SEPA checklist.

// Overview of key comments from DOH – storage capacity

- DOH provided comments about the City’s system capacity – specifically the existing storage deficiencies.
 - DOH recommended adjusting the standby storage requirement to match the City’s existing level of service.
 - DOH would like to see the City’s plan to address provide sufficient storage capacity within the next 10 years.

Table 5.10 System-Wide Storage Analysis

Storage Component (MG)	2022	2031	2041 ⁽¹⁾
Total Storage	2.25	2.25	2.66
Dead Storage	0.88	0.88	0.89
Available Storage (at 20 psi)	1.37	1.37	1.77
Required Storage			
Operational Storage	0.15	0.15	0.18
Equalizing Storage	0.23	0.27	0.34
Standby/FSS	1.51	1.72	1.93
Total Required Storage	1.89	2.13	2.45
Excess or (Deficit)⁽²⁾	(0.52)	(0.76)	(0.68)

Notes:

(1) Includes Future Shelton Hills Development Reservoir (0.41 MG nominal capacity).

(2) Nested total storage minus available storage (at 20 psi).

// Storage strategy recommendation for short- and long-term planning horizon

- 10-year planning horizon:
 - Angleside Reservoir Pump Station control study and improvements
 - New Mt. View Reservoir
- 20-year planning horizon:
 - Mt. View PZ rezone of high elevation customers
 - New Angleside Reservoir
 - Capitol Hill Reservoir taken offline
 - Upper Mt. View Elevated Reservoir in Shelton Hills
- These recommendations address the storage deficiencies for the 10-year and 20-year planning horizon.

// Overview of key comments from DOH – water use efficiency (WUE)

- DOH requires proof of WUE Public Forum to establish the WUE goals:
 - Proof of proper notification, an agenda, and signed minutes from the meeting must be included in the WSP.

WHAT IS WUE?

The term Water Use Efficiency (WUE) refers to efforts by water providers (the City) and water users (the citizens and businesses of Shelton) to use less water. These efforts include fixing leaks in water mains (City-owned water pipes in the street), fixing leaks in customer plumbing, using more efficient appliances and plumbing fixtures, and using more efficient irrigation techniques for lawns and gardens.

WHY ARE WE SETTING WUE GOALS?

The City is allowed to keep its full water rights without having to use the full amount each year, allowing the City to supply water to new customers as the City grows. This is a special condition for municipalities allowed by the 2003 Municipal Water Law. As a condition of this law, the City must develop a WUE program.

By using water more efficiently, water demands are reduced, and existing water rights and infrastructure can be used to support more connections to the water system. This is less expensive than building new infrastructure and buying new water rights, ultimately helping to keep water rates low.

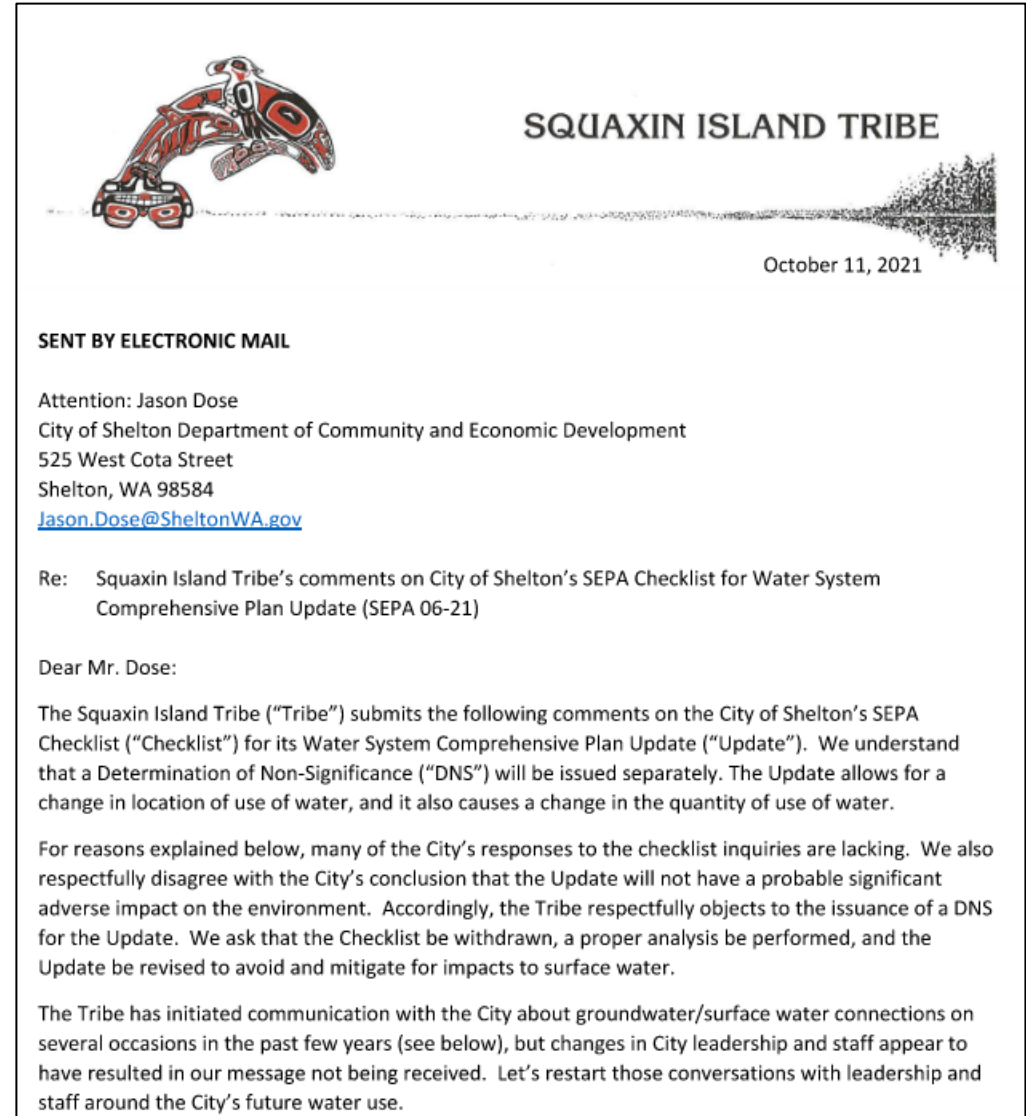


// Overview of key comments from DOH – planning criteria

- DOH requested notification from the fire authority stating that fire flow requirements are adequate.
- The City adopted the 2018 International Fire Code in 2021.
- The residential fire flow requirements needed to be revised to match the adopted fire flow.
 - Revisions to required fire suppression storage and fire flow availability hydraulic modeling.
 - Additional pipeline projects recommended in long-term CIP to address fire flow deficiencies.

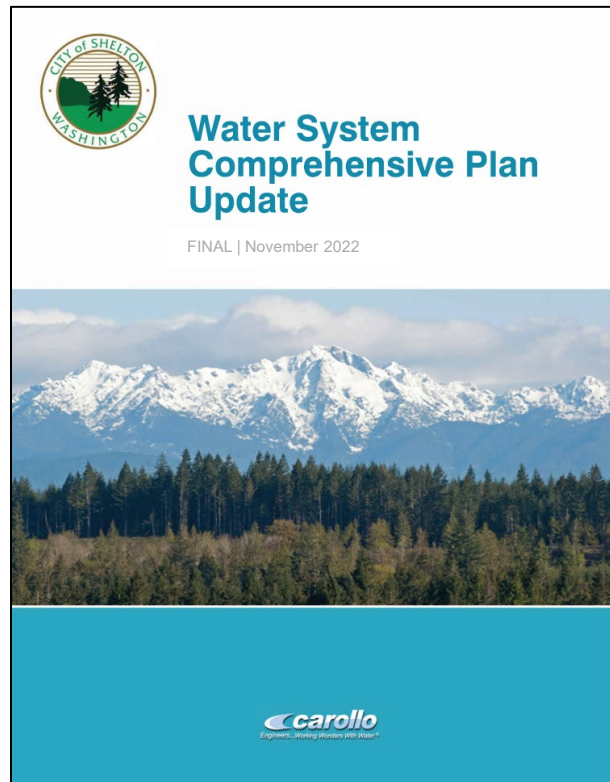
// Squaxin Island Tribe comments on SEPA checklist

- Plan recommends new well in long-term CIP to meet water source redundancy goals.
- New well will require approval of a mitigation plan.
- Recommend that the City develop a Mitigated Determination of Non-Significance and add revisions in the Plan to address Tribe comments.



// Steps to approve Final WSP

- Present Final Plan to City Council on December 6, 2022.
- Submit approved Final Plan to DOH for approval.



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WHAT ARE THE CITY'S WUE GOALS?

1. **Reduce Total Consumption per Customer by 1% annually through 2029.**

An ERU (Equivalent Residential Unit) is the amount of water that one single-family home uses. Currently, the average single-family home in Shelton uses 154 gallons of water each day. If each home can reduce water demand by a small amount, the water savings will add up to a significant reduction in City-wide demand.

2. **Maintain Distribution System Leakage (DSL) equal to or lesser than 10% on a 3-year rolling average through 2029.**

Distribution system leakage (DSL) is water lost when it leaks from pipes in the ground, whether that is a small, slow leak, or a large leak when a pipe breaks.

HOW WILL THE CITY ACHIEVE ITS WUE GOALS?

1. ***Reduce total consumption per Customer by 1% annually through 2029.***

The City encourages efficient water use through the measures described below. Public education efforts and notifying customers of high meter reads are cost-effective measures. The City is also looking into getting indoor and outdoor water conservation kits available for customers.

2. ***Maintain distribution system leakage equal to or lesser than 10% on a 3-year rolling average through 2029.***

Distribution system leakage (DSL) is calculated as the difference between how much water is produced by the City's water sources and how much is used by customers. Shelton uses meters to measure how much water is produced by its water sources, how much water is used by customers, and uses these values to calculate DSL. As customer water meters age, they often under-read and can result in high DSL values. The City is in the process of replacing customers water meters with new Ipearl and Omni water meters as part of the AMI radio read project. The AMI project will provide consistent and accurate readings than existing Sensus meters. The City also

calibrates production source meters, maintains water mains and fittings, and replaces old or leaky water mains in order to reduce DSL. Furthermore, improving tracking methods of authorized consumption, including hydrant flows and other unmetered or unbilled water usage will assist the City in monitoring water use. The City for the past 10 years is in the table below.

YEAR	WATER PRODUCTION (MGD)	DSL (PERCENTAGE OF WATER PRODUCTION)
2010	0.99	6.7%
2013	1.00	8.8%
2015	1.11	13.8%
2018	1.08	10.6%
2021	1.03	2.7%

The City does not face any fines or penalties for its current water use patterns, and will continue to provide reliable, safe water to its citizens while making efforts to improve water use efficiency.

WHAT MEASURES WILL THE CITY IMPLEMENT TO MEET THE ABOVE GOALS?

The WUE Rule requires all municipal water systems to implement a specified number of measures specifically targeted to the City's water system. The purpose of adopting a particular set of water use efficiency measures is to develop a strategy to meet the City's water use efficiency goals described above. The **mandatory measures** the City is required to address are the following:

1. *Install Source Meters* – Completed with well construction.
2. *Install Service Meters* – AMI Project – Started in 2022 and ongoing.
3. *Calibrate Source & Service Meters (per Industry Standards)* – As needed or replace.
4. *Water Loss Control Action Plan (if DSL >10%)* – Included in the Water System Plan update – Annual leak detection to follow up 2020 effort.
5. *Educate Customers About WUE (once per year)* – Annually prepare Water Quality Report and provide to customers through utility billing.
6. *Evaluate Water Conservation Rates* – Scheduled to presents to Council in 2023 water rate study.

In addition to the above **mandatory measures**, the City must adopt another six water use efficiency measures. The number of measures the City must implement are based on the number of water system connections. If a qualified WUE measure is implemented for different customer classes, it counts as multiple WUE measures. The City's WUE measures are outlined below:

1. *Notify Customers of High Meter Reads* – Ongoing, applies to residential, community, and commercial customer classes.
 - a. Notifying customers of high meter reads may alert a user to a water leak within their property, helping them to save water by correcting the leak.
2. *Increase Public Education Efforts* – Ongoing, applies to residential, community, and commercial customer classes.

- a. Examples include education regarding water use efficiency via school programs, council meeting and advertisements (e.g., posters in City Hall).
3. *Distribute water savings kit* – Future, applies to residential, community, and commercial customer classes.
 - a. This measure will provide faucet aerators, toilet leak detection tablets, and toilet tank banks to allow customers to use less water.