Enumclaw Comprehensive Plan

UTILITIES

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CITY OF Enumclaw

10. UTILITIES

Purpose

The purpose of the Utilities Element is to provide goals and policies that will direct the City on planning for, placing, operating, and maintaining municipal utilities and supporting non-municipally run utilities in placing and maintaining the infrastructure needed to support existing residents and businesses and planned growth in Enumclaw. The City of Enumclaw directly delivers many public utility services in Enumclaw, including:

- Natural Gas
- Sewer
- Solid Waste, Recycling, and Yard Waste
- Stormwater
- Water

The City of Enumclaw's Public Works Department is responsible for the planning, design, construction, operations, and maintenance of the City's natural gas, sewer, stormwater, and potable water utilities; this includes responding to utility emergencies related to its municipal utilities and coordinating with non-municipal providers related to electrical and telecom emergencies and participating in the State of Washington's "811" or "call before you dig" program, which coordinates utility providers to mark their buried lines from public right-of-way and across private property for free.

The Department also delivers solid waste, recycling, and yard waste collection services within its boundaries, except for large container service and at properties that have been annexed within the last seven years. Properties annexed within the last seven years continue to be served by a private solid waste, recycling, and yard service provider, contracted through King County. This private service provider is currently Waste Management, Inc. however, other private service companies in King County include Recology CleanScapes, Republic Services, and Waste Connections, Inc. Large container service is also delivered by Waste Management Inc.

Since the adoption of the City of Enumclaw's previous Comprehensive Plan, in 2015, the City has adopted two annexations, the Mount Rainier Christian Center Annexation and the SE 456th St. Orphan Road annexation. Neither of these annexations included households.

While the City does deliver solid waste, recycling, and yard waste services in Enumclaw, it relies on King County's Enumclaw Recycling and Transfer Station to dispose of waste. King County is solely responsible for the funding and operation of the transfer station, although the County does recover some of its costs through user fees, including from the City of Enumclaw.

The city does not deliver electricity services; the City's electricity utility is Puget Sound Energy. Telecommunications, including landline, cable, cellular, fiber optic, and wireless television, internet, and phone services, are available in Enumclaw through a number of private companies including Comcast, Astound (Wave) Broadband, CenturyLink, T-Mobile, AT&T, and Verizon.

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In Enumclaw's previous Comprehensive Plans, including the 2015 Comprehensive Plan Update, information about the public utilities serving Enumclaw, including the City's municipal utilities were included as part of the Capital Facilities Element. This Comprehensive Plan Update isolates this information as a separate "Utilities Element" in conformance to the GMA, which requires such an element.

Planning Context and Framework

STATE PLANNING CONTEXT

The Washington State Growth Management Act (GMA) requires, as codified in RCW 36.70A.070.4, that all comprehensive plans contain a Utilities Element that includes the general location, proposed location, and capacity of all existing and proposed utilities, including but not limited to, electrical, telecommunications, and natural gas systems. RCW 36.70A.070(2) requires that, within this Utilities Element, City's, like Enumclaw must identify this information for not only all public entities that own utility systems but must also make a good faith effort to include it for other public entities, like special purpose districts.

Although GMA does not explicitly require that planning for utilities meet concurrency requirements, the Utilities Element is an important tool for planning for growth, as utilities services and infrastructure must be in place to accommodate growth.

REGIONAL PLANNING CONTEXT

Like the City of Enumclaw's overall Comprehensive Plan, the City's Utilities Element must be consistent with King County's CPPs and PSRC's Vision 2050 MPPs. Enumclaw's utilities planning is also guided by a number of other regional collaborations and planning documents, including the South King County Coordinated Water System Plan (SKCCWSP), Water Resource Inventory Area (WRIA) 9 (Green River) Watershed Restoration and Enhancement Plan, and the WRIA 10 (White River) Watershed Restoration and Enhancement Plan.

KING COUNTY COUNTYWIDE PLANNING POLICIES

King County has established CPPs related to public facilities and services, including utilities, with the overarching goal that "County residents in both Urban and Rural Areas have timely and equitable access to the public services needed to advance public health and safety, protect the environment, and carry out the Regional Growth Strategy. These goals include specific goals related to utilities, including:

- 7 CPPs related to water supply;
- 2 CPPs related to sewage treatment and disposal;
- 1 CPP related to solid waste;
- 2 CPPS related to energy; and,
- 1 CPP related to telecommunications.

King County's CPPs provide policy guidance on ensuring natural resource availability; implementing conservation and water reduction activities; planning for climate change and

disaster preparedness and resiliency; planning for and siting capital facilities; and regional collaboration around resource use and facilities.

VISION 2050 MULTICOUNTY PLANNING POLICIES

PSRC's Vision 2050 for King, Snohomish, Pierce, and Kitsap counties includes MPPs for public services, which include public utilities.

OTHER REGIONAL PLANNING DOCUMENTS

South King County 1989 Coordinated Water System Plan

SKCCWSP was developed by Economic and Engineering Services, Inc. in 1989. The purpose of the SKCCWSP is to assist the area's water utilities in establishing an effective process for the planning and development of public water systems while restricting the proliferation of small public water systems. The SKCCWSP accomplishes this by establishing future service area boundaries, minimum design standards, service review procedures, appeals procedures, long-term regional water supply strategy, water conservation program and goals, and the satellite system management program. As can be seen in the following sections of this Water System Plan, the City has established policies, design criteria, and goals that meet or exceed the requirements and goals of the SKCCWSP.

WRIA 9 (Green River) Watershed Restoration and Enhancement Plan

The northerly portion of Enumclaw is located in WRIA 9, the Duwamish/Green watershed. The northerly portion of the City and the City's UGA drains north/northwest into Newaukum Creek. Newaukum Creek joins with the Green River, which subsequently discharges into the Duwamish River and flows into Puget Sound.

WRIA 9's most recent Watershed Restoration and Enhancement Plan was approved by the WRIA 9 Watershed Restoration and Enhancement Committee in February 2021 and adopted by Ecology in May 2021. The WRIA 9 Plan assumes an estimated 247.7 acre-feet per year (AFY), or 0.34 cubic feet per second (cfs), of new consumptive water use in WRIA 9 that this watershed plan must address and offset. The WRIA 9 Committee sought projects to offset at least 495.4 AFY to account for uncertainties in the PE well projection and consumptive use estimate, including higher rates of water use that could result from climate change and changing development patterns. The WRIA 9 Committee developed the water offset target by doubling the 247.7 AFY consumptive use estimate. The offset target of 495.4 AFY also accounts for uncertainties related to project implementation.

WRIA 10 (White River) Watershed Restoration and Enhancement Plan

The southerly portion of the City and the City's UGA are located in WRIA 10, the Puyallup/White watershed. The southerly portion of the City and the City's UGA drains south/southwest into Boise Creek. Boise Creek joins with the White River, which subsequently discharges into the Puyallup River and flows into Puget Sound.

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WRIA 10's most recent Watershed Restoration and Enhancement Plan was approved by the WRIA 10 Watershed Restoration and Enhancement Committee in April 2021 and adopted by Ecology in June 2021. The WRIA 9 Plan assumes an estimated consumptive water use associated with the new PE well connections is 277.4 acre-feet per year (0.38 cfs); equivalent to 360 gallons per day for each new PE well. The projects and actions in this watershed plan will address and offset the consumptive water use from those PE well connections. The projects in this watershed plan include water right acquisitions, managed aquifer recharges, stormwater infiltration, and PE well decommissioning that provide an estimated offset of 788.3 acre-feet per year to benefit stream flows and enhance the watershed.

LOCAL PLANNING CONTEXT

As discussed previously, the City of Enumclaw is a significant, but not exclusive, utility provider in Enumclaw, however, the City is also served by private utilities. Where the City provides Utility services, there are a number of local plans and other documents that guide its activities, as shown in Exhibit U-1.

Exhibit U-1: Municipal Utilities Plans and Documents

Municipal Utilities	Relevant Plans and Documents
Natural Gas	Natural Gas System Plan and Long-Range Investment Plan, 2016-2035, February 2016
Wastewater	2016 General Sewer Plan Amendment 2, updated August 2023 Appendix G – Standards for Sanitary Sewer Systems, August 2023
Solid Waste	None
Stormwater	Comprehensive Stormwater Plan, August 2019 2023 Stormwater Management Program Plan (SWMPP)
Water	Water System Plan, June 2023

These documents have informed this Utilities Element and are incorporated and adopted by reference.

Introduction

The City of Enumclaw's Utilities Element is split into two sections. The first section, *Goals and Policies,* includes the goals and policies that are intended to direct the City's planning and provision of municipal utility services as well as collaboration around utilities delivered by others. The second section, *Utilities Services and Facilities Inventory,* includes an inventory of public utility services and facilities in the City, by type, including municipal utilities delivered by the City and electricity and telecommunications services delivered by others.

Goals and Policies

OVERALL

Goal U-1 Operate and maintain utilities at their adopted levels of service and ensure infrastructure can accommodate anticipated growth while maintaining these standards.

Policy U-1.1 *Maintain municipal utility services as outlined in existing City plans, with highest priority given to improving services in those areas where it already exists, next highest priority to infilling areas surrounded by utility service, and lowest priority to extension of utilities into unserved areas.*

Goal U-2 Ensure that adequate utilities Infrastructure Is placed and sized to meet long-term growth as anticipated and described in this Comprehensive Plan.

Policy U-2.1 *Continue long-range planning activities for municipal utilities that anticipate growth and ensure needed infrastructure is placed and operational concurrent with new development.*

Policy U-2.2 *Participate in planning efforts and coordinate with non-municipal utilities in planning for infrastructure to accommodate growth.*

Goal U-3 Require development associated with growth to pay for or construct growth-necessitated infrastructure or the share of infrastructure associated with the needs of new growth.

Policy U-3.1 *As possible, determine new utility needs associated with development as part of the permitting process.*

Goal U-4 Require development associated with growth to pay for or construct growth-necessitated infrastructure or the share of infrastructure associated with the needs of new growth.

Goal U-5 Coordinate utility placement and development with other Infrastructure to improve efficiency In cost and timing of development.

Policy U-5.1 *As practical, collocate municipal and non-municipal utilities in shared trenches and/or utility corridors.*

Policy U-5.2 *Coordinate utility improvements with construction and repair of new and existing transportation infrastructure.*

Policy U-5.3 *Ensure a reasonable regulatory environment and provide expeditious permitting for utility projects to minimize service disruptions and associated costs for ratepayers.*

Goal U-6. Promote the undergrounding of new and existing utility lines, where practical.

Policy U-6.1 *Support undergrounding existing utility lines as coincident transportation projects occur.*

POTABLE WATER

Goal U-7 Participate in regional planning efforts and initiatives around maintaining water quality and conservation.

Policy U-7.1 *Identify and support water quality and conservation efforts in conjunction with regional efforts.*

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Goal U-8 Require a retail water service connection for all new development permitted by the City.

WASTEWATER

Goal U-9 Require a wastewater connection for all new development permitted by the City.

SOLID WASTE

Goal U-10 Participate in regional planning efforts around solid waste management.

Policy U-10.1 *Continue to participate in the Metropolitan Solid Waste Advisory Committee (MSWAC).*

Policy U-10.2 *Monitor contracted solid waste providers (those providing large container service and serving recently [within the last seven years] annexed areas) to ensure compliance with the service contracts.*

Goal U-11 Ensure appropriate solid waste management and disposal and prevent Illegal dumping.

Policy U-11.1 *Enforce codes to ensure adequate and conveniently located space for garbage and recycling collection containers in commercial, multifamily, and mixed-use buildings.*

Policy U-11.2 *Post signage and enforce laws around illegal dumping at sites where illegal dumping occurs.*

STORMWATER

Goal U-7 Participate in regional planning efforts and initiatives around maintaining watershed quality and meeting offset targets.

Goal U-7 Maintain, use, and require development to use stormwater design and construction standards.

Utilities Services and Facilities Inventory

As discussed previously, the City of Enumclaw is served by municipal utilities which provide natural gas, potable water, wastewater, solid waste, and stormwater services and private utilities that provide electrical energy and telecommunications in and around Enumclaw. These utilities are delivered to residents based on adopted level of service guidelines which determine the need for new and expanded utilities infrastructure. Exhibit U-2 outlines who governs the utilities in Enumclaw and provides the adopted level of service standards for those services.

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Exhibit U-2 Utilities Governance and Level of Service Standards

Utility	Governance	Adopted Level of Service Guidelines
Natural Gas	City of Enumclaw	Provide natural gas service within the City's certified service area boundary in accordance with the Enumclaw Municipal Code, Pipeline Safety Manual, and Natural Gas Comprehensive Plan
Wastewater		Provide sewer service within the City limits in accordance with the General Sewer Plan, including: A collection system capable of conveying all wastewater discharges from customers within the City limits that minimizes overflows and the need for new lift stations A treatment system capable of treating and discharging wastewater that meets all permit requirements of the NPDES permit A pretreatment of industrial and commercial wastewater if necessary prior to discharge into the City's collection system
Solid Waste		Maintain efficient and effective garbage, recycle, and yard waste collection programs
Stormwater		Comply with NPDES Phase II federal permitting requirements
Water		Provide a safe and adequate supply of water in accordance with the Comprehensive Water System Plan policies and design criteria

MUNICIPAL UTILITIES

NATURAL GAS

The City of Enumclaw has operated a natural gas utility within city limits since 1957, when the City, in partnership with the City of Buckley, installed a 13-mile-high pressure main from Auburn through Enumclaw and ending south of the White River Bridge along Highway 410. The City is, now, one of only two remaining municipally-owned natural gas utilities in Washington State. Its activities are governed by stringent federal and state regulations, which are followed to ensure public safety. These federal and state regulations are dynamic and continue to evolve to improve the safety and mitigate the climate impacts of natural gas energy; while safety and climate are important to Enumclaw the dynamic nature of the regulatory environment is a challenge to long-term planning.

For example, beginning on January 1, 2023, the Washington State Department of Ecology required natural gas utilities to participate in a cap-and-invest program to reduce carbon pollution and achieve greenhouse gas (GHG) limits set in state law. This program requires natural gas distribution companies that generate 25,000 metric tons or more of carbon,

including municipal utilities like the City of Enumclaw's, to offset carbon emissions produced through the sale of natural gas. Because the City is currently below this cap, it is exempted from the first compliance period between 2023 and 2026, however, the utility will need to be prepared to meet this regulatory requirement after 2026, as its emissions are predicted to exceed the cap at that point.

The City's level of service standard for natural gas is to provide natural gas service within the City's certified service area boundary in accordance with the Enumclaw Municipal Code, Pipeline Safety Manual, and Natural Gas Comprehensive Plan. This certified service area is 44.3 square miles and includes the City of Enumclaw, its urban growth areas, and portions of unincorporated King County. Natural gas is also distributed through the system to the City of Buckley through a 20-year agreement with Puget Sound Energy that was initiated in 2014.

Exhibit U-3. City of Enumclaw Natural Gas Utility Service Area, 2023

[forthcoming]

The City's Public Works Department is responsible for the operation and maintenance of the natural gas utility while the City's Finance Department is responsible for utility billing, accounting, and customer service for it. Within the Public Works Department, the Engineering Division provides mapping of system facilities and the Operations Division performs routine maintenance and daily operation of the distribution system, including operation of the mains, service lines, valves, pressure regulating devises, and cathodic protection system. As of 2023, the City of Enumclaw has approximately 9.98 FTE supporting the Natural Gas Utility, with approximately 9 FTE dedicated staff, including 1 FTE Gas Utility Manager, 1 FTE Gas Supervisor, 1 FTE Civil Engineer, 1 FTE Utility Tech, 4 FTE Gas Workers, and 2 FTE Utility Worker.

As of 2023, the utility had 19 district regulator stations and 116.7 miles of distribution main serving 5,000 retail customers. The City's Natural Gas Comprehensive Plan the *Natural Gas System Plan and Long-Range Investment Plan, 2016-2035* was last updated in February 2016 and is incorporated by reference into this Utilities Element. As part of developing the *Natural Gas System Plan and Long-Range Investment Plan, 2016-2035,* the City's natural gas infrastructure was evaluated and a planning base model representing the system at 2035 buildout conditions (based on the City's 2035 Master Development Plan) was developed to allow for comparison of long-range scenarios for the Utility and develop a preferred alternative and investment plan for the Utility over the next 20 years.

The selected alternative required an investment of $3 million in 2015 dollars between will invest over $3 million between 2016 and 2035 and recommended that the City validate load growth periodically and adjust the timing of capital projects as appropriate. In addition, additional operating and capital needs related to regulatory requirements also need to be incorporated. The City has been diligent in addressing the investment needs identified as part of the *Natural Gas System Plan and Long-Range Investment Plan, 2016-2035* however many significant projects remain, as shown in the 20-year needs analysis, following. The project costs associated with these projects were taken from the *Natural Gas System Plan and Long-Range Investment Plan, 2016-2035,* however, they were updated to 2023 dollars using the Washington State Department of Transportation (WSDOT) Construction Cost Index.

Exhibit U-4. City of Enumclaw Natural Gas Utility 20-year Needs Analysis, 2023 Dollars

Description		Cost Estimates	
Uprate 4-inch steel IP main in Warner Avenue between the existing Warner Regulator Station and Blake Street, adding a new regulator station near the intersection of Warner Avenue and Blake Street, a new regulator station near Auburn Enumclaw Road and 228th Avenue SE. Increase HP to 326 psig. Uprate the IP system to 50 psig.		**Actuals (2016$)**	**Updated (2024$, rounded to nearest $10,000)**
HP System Pressure	Uprate to 326 psig 82,400 ft. Uprate existing steel IP main, 6,543 ft.	$254,210	$320,000
IP System Pressure	New regulator stations 1. EnumclawAuburn Rd and 228th Ave SE. 2. Warner and Blake Rebuild Roosevelt Regulator Station.	$285,355	$360,000
Regulator Station Work	2" – 6,666 Ft. 4" – 14,273 Ft. Relocate 16 services along Warner ($8,000)	$225,000	$280,000
New PE Pipe Installed	4" – 21,023 Ft.	$1,502,276	$1,890,000
Steel Pipe Replaced with PE		$1,513,656	$1,910,000
	TOTAL ESTIMATED COST	$3,780,497	$4,760,000

These investments are expected to occur in the 20-year horizon of this Plan, but not in the next six years. However, the timing of these investments is highly dependent upon when growth actually occurs. It is recommended that the City update the planning model periodically to analyze the growth that has occurred, and modify the project timing proposed within this report based upon actual growth.

POTABLE WATER

The City of Enumclaw has operated a Potable Water Utility since 1923, when it acquired its water system from Weyerhaeuser Company which included Boise Spring. The Utility's level of service standard for potable water is to provide a safe and adequate supply of water in accordance with the Comprehensive Water System Plan policies and design criteria. The City's Comprehensive Water System Plan is the *City of Enumclaw Water System Plan, June 2023*; it is incorporated by reference into this Utilities Element. The Plan must be updated every ten years per WAC 246-290-100; it was last updated in June 2023.

The Utility serves a 28.8-mile retail service area that includes the City of Enumclaw as well as approximately 23.5 square miles of unincorporated King County. It also has a future water service area that encompasses approximately 8.5 square miles and includes the following areas:

- Along the corridor of SE 406th Street extended between 216th Avenue SE and 240th Avenue SE
- Along the corridor of SE 406th Street extended between 248th Avenue SE and 260th Avenue SE
- 268th Avenue SE between SE 401st Street and SE 411th Street
- In the vicinity of SE 424th Street and 244th Avenue SE
- Along SE 424th Street between 220th Avenue SE and 224th Avenue SE
- Along 216th Avenue SE near SE 444th Street.

Exhibit U-5. City of Enumclaw Potable Water Utility Retail Service Area and Future Water Service Area, 2023

[forthcoming]

Within its current retail service area, the Utility serves approximately 7,785 retail customers, and a total population of 16,900 people, including approximately 12,830 Enumclaw residents and 4,070 people in unincorporated King County.

In addition to its own level of service standard, the Water Utility also has a duty to serve all existing and new service connections within its retail service area in accordance with Washington State municipal water laws, although four criteria must be met:

- The City has sufficient water rights to provide service;
- The City has sufficient capacity to serve water in a safe and reliable manner;
- The service request is consistent with the adopted local plans, land use plans, and development regulations;
- Service can be provided in a timely and reasonable manner.

According to the *City of Enumclaw Water System Plan, June 2023* the City has determined that it is capable of meeting this requirement over the 20-year period of its Water System Plan and this Comprehensive Plan.

The City's Public Works Department is responsible for the operation and maintenance of the water utility while the City's Finance Department is responsible for utility billing, accounting, and customer service for it. Within the Public Works Department, the Engineering Division manages system operations and capital improvement projects and performs development review and the Operations Division performs routine maintenance and monitors the daily operation of the water system. As of 2023, the City of Enumclaw has 8.54 FTE supporting the Water Utility, with approximately 7 FTE dedicated staff, including 1 FTE Water Supervisor, and 6 FTE Water Workers.

The Water System's current facilities include four sources of supply:

- Boise Spring
- Watercress Spring

- PC Johnson Wellfield
- Golf Course Well

The first two sources are permanent, while the PC Johnson Wellfield and Golf Course Well are seasonal. The City also has an emergency intertie with the City of Tacoma. All of the City's water rights qualify as for municipal water supply purposes under RCW 90.03.015 and are in good standing. All of the water generated through City sources is chlorinated for disinfection through a chlorine gas system at Weyerhaeuser Booster Pump Station and water from Boise and Watercress Springs is, additionally, treated for corrosion control at the Corrosion Control Facility at the City reservoir site. Enumclaw does not add fluoride to its water.

The City of Enumclaw 's Water Utility currently serves customers within an elevation range of approximately 520 feet near the northwestern corner of the water service area to an elevation of approximately 1,100 feet at the former Weyerhaeuser Mill site on SR 410; this elevation range requires that water pressure be adjusted for safety and to sufficiently meet system flow requirements. To achieve this, the Water Utility has divided its water distribution system into eight pressure zones which are regulated by reservoir levels, booster pumps stations, pressure reducing stations, or a combination of some or all of the above.

The water system has five reservoirs:

- 3 MG City Reservoir
- Crews Reservoir
- Stanridge Hill Reservoir
- Fairway Hills Reservoir
- 1 MG City Reservoir

The first four are operational reservoirs with a total storage capacity of 4.74 million gallons (MG).The fifth reservoir, the 1 MG City Reservoir, is not currently operating and schedule to be decommissioned.

The water system has seven booster pump stations:

- Weyerhaeuser Booster Pump Station
- New Horizons Booster Pump Station
- Standridge Hill Booster Pump Station
- 1013 Zone Booster Pump Station
- 983 Zone Booster Pump Station
- Fairway Hills Booster Pump Station
- Highview Booster Pump Station

The water system also includes pressure reducing stations that connect adjacent pressure zones, reducing water pressure as water moves from higher pressure zones to lower pressure zones. The water system has three pressure reducing stations:

- New Horizons
- New Horizons Booster Pump Station
- 983/988 Zone

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Appropriately sourced, treated, and pressurized water is then distributed throughout the water system through approximately 145.9 miles of city-owned and -maintained water main, which ranges from 1 in to 24 inches in diameter. A further 8.7 miles of privately-owned water main, primarily serving sprinkler systems and mobile home park communities served through master meters, is connected to the City system. An inventory of the water mains in Enumclaw's water distribution system is shown in Exhibit U-6.

Exhibit U-6. City of Enumclaw Potable Water Distribution System, Water Main Inventory, 2023

Diameter (in.)	City-owned (ft.)	Privately-owned (ft.)	Total (ft.)
2 in. or smaller	63,993	11,717	75,710
3 in.	66	7,517	7,583
4 in.	34,487	5,961	40,448
5 in.	380		380
6 in.	220,250	14,406	234,656
8 in.	280,862	3,336	284,,198
10 in.	101,545	2,767	104,312
12 in.	59,856	-	59,856
14 in.	1,481	-	1,481
16 in.	6,363	-	6,363
18 in.	856	-	856
24 in.	471	-	471
TOTAL	**770,609**	**45,704**	**816,313**

Source: *City of Enumclaw Water System Plan, June 2023.*

The water distribution system is monitored through a telemetry and supervisory control system, to to optimize facility operations and provide instant alarm notifications in the event of equipment failure, operational problem, or emergency. The master telemetry unit is located in the City's Public Works Building and buttressed by additional remote telemetry units at remote facilities. The telemetry and supervisory control system is updated and maintained by the Consultant firm S&B, Inc..

The City's Comprehensive Water System Plan also identifies capital needs and a 10-year capital improvement program, as well as projects to be completed over a 20-year time horizon, for the Water Utility, summarized in Exhibit U-7, following.

Exhibit U-7. City of Enumclaw Potable Water Utility 20-year Needs Analysis, 2023 Dollars

Project Number	Project Description	Estimated Project Cost		Projected Date
		Actuals (2023$, rounded to nearest $1,000)	Updated (2024$, rounded to nearest $10,000)	
D-16	Steel Main Replacements	$1,500,000	$1,500,000	annual
G-7	Rural Area Isolation Valves (annual)	$200,000	$200,000	annual
G-9	Misc. Water Improvements	$1,500,000	$1,500,000	annual
D-7	Boise Springs Transmission Main	$3,222,000	$3,230,000	2024/2025
ST-4	Reduce Dead Storage in Crews Reservoir	$2,000	$0	2024
D-14	McHugh Avenue from 2512 to 2840 McHugh	$1,202,000	$1,200,000	2025
SO-2	PC Johnson Wellfield Manganese Treatment Predesign	$50,000	$50,000	2025
Z-1	New Pressure Zone	$1,146,000	$1,150,000	2026
D-13	Harding Street from Kibler Avenue to Griffin Avenue	$1,176,000	$1,180,000	2027
D-4	Roosevelt Avenue from Stevenson Avenue to Watson Street	$1,176,000	$1,180,000	2027
D-5	Roosevelt Avenue Transmission Main	$3,442,000	$3,450,000	2027
G-6	Automated Flushing Devices	$15,000	$20,000	2027
D-3	Stevenson Avenue from Railroad Street to Roosevelt Avenue	$1,735,000	$1,740,000	2028
D-17	Y Bar S Main Replacement	$1,200,000	$1,200,000	2029/2034+
G-5	PC Johnson Wells 2 and 3 Rehabilitation	$250,000	$250,000	2029

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Project Number	Project Description	Estimated Project Cost		Projected Date
		Actuals (2023$, rounded to nearest $1,000)	Updated (2024$, rounded to nearest $10,000)	
D-11	Lafromboise Street Alley from Elmont Avenue to Montgomery Avenue	$693,000	$690,000	2030
D-12	Montgomery Avenue and Pioneer Street	$405,000	$410,000	2030
D-6	Farman Street Looping	$845,000	$850,000	2031
G-3	PC Johnson Automatic Transmission Main Control Valve	$448,000	$450,000	2031
G-4	PC Johnson Wellfield Chlorine Analyzer	$10,000	$10,000	2031
BS-1	Replace Equipment at Lower New Horizons	$348,000	$350,000	2032
D-15	Washington Avenue from Porter Street to James Street	$1,394,000	$1,400,000	2032
SO-3	Replace PC Well 3 Pump	$548,000	$550,000	2032
G-1	Comprehensive Water System Plan Update	$150,000	$150,000	2033
ST-1	New 2 MG Reservoir	$4,831,000	$4,840,000	2033/2034
ST-3	Storage Integrity Evaluation	$50,000	$50,000	2033
BS-2	Emergency Generator at Lower New Horizons	$270,000	$270,000	2034+
D-1	Stevenson Avenue from Marion Street to Railroad Street	$856,000	$860,000	2034+
D-10	Griffin Avenue from Florence Street to Highpoint Street	$1,746,000	$1,750,000	2034+
D-2	Marion Street from Stevenson Avenue to Edith Avenue	$292,000	$290,000	2034+
D-8	Porter Street from Battersby Avenue to McHugh Avenue	$1,306,000	$1,310,000	2034+

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Project Number	Project Description	Estimated Project Cost		Projected Date
		Actuals (2023$, rounded to nearest $1,000)	Updated (2024$, rounded to nearest $10,000)	
D-9	**Griffin Avenue from Pioneer Street to Florence Street**	$1,167,000	$1,170,000	2034+
G-2	**Boise Spring Rehabilitation**	$50,000	$50,000	2034+
G-8	**Facility Equipment Replacements**	$1,500,000	$1,500,000	2034+
SO-1	**New Watercress Well 1**	$1,874,000	$1,880,000	2034+
ST-2	**Decommission 1 MG Reservoir**	$674,000	$670,000	2034+
SUBTOTAL, SIX-YEAR (2024-2029)		**$18,509,000**	**$18,540,000**	
SUBTOTAL, REMAINDER of 20-YEAR 2030-2044		**$19,457,000**	**$19,500,000**	
TOTAL		**$37,273,000**	**$37,350,000**	

It is expected that these capital improvements will be funded through water utility rate payments from consumers; it is assumed that a rate increase of 5% per year on the City's base and consumption rates will be sufficient to fully cashfund the high-priority projects in the City's Water Utility project list program over the next 10 years.

WASTEWATER

The City of Enumclaw has owned and operated a Wastewater (often referred to as a sanitary sewer) utility since 1915. The City's most recent wastewater utility planning document, the *City of Enumclaw, General Sewer Plan, March 2016*, incorporated into this Comprehensive Plan by reference, was based on the City's UGA as of 2015. This Plan documents that the City's sewer collection and treatment system has adequate capacity to serve the expected growth in the City and UGA as long as modest improvements continue to be made. However, this has not always been the case, as the City of Enumclaw has had to enact several development moratoriums due to a lack of potable water and/or sanitary sewer system capacity. The most recent development moratorium started in late 1998 and was extended bi-annually until early 2009, after an updated sewage treatment facility was opened in November 2008.

The City of Enumclaw operates its Wastewater Utility according to all applicable federal, state, and regional design criteria, laws, regulations, and policies. The City's level of service standard for sanitary sewer services is to provide sewer service within the City limits in accordance with the General Sewer Plan, including provision of:

- A collection system capable of conveying all wastewater discharges from customers within the City limits that minimizes overflows and the need for new lift stations;

- A treatment system capable of treating and discharging wastewater that meets all permit requirements of the NPDES permit; and,
- A pretreatment of industrial and commercial wastewater if necessary prior to discharge into the City's collection system.

The Wastewater Utility's service area is approximately ## square miles, with the City itself making up ## square miles and the City's UGAs making up the remainder.

Exhibit U-8. City of Enumclaw Wastewater Utility Service Area, 2023

[forthcoming]

As of 2023, the Utility serves 4,140 retail customers within this service area. This includes the majority of single family residences within the City; there are estimated to be fewer than 200 single family residences that are not served by the City's wastewater utility (who instead rely on onsite sewerage systems). This value also includes the City's approximately 450 non-residential customers as well as its sole industrial customer, the King County Transfer Station.

The City's Public Works Department is responsible for the operation and maintenance of the wastewater utility while the City's Finance Department is responsible for utility billing, accounting, and customer service for it. Within the Public Works Department, the Engineering Division performs development revie and manages capital improvement projects and the Operations Division performs routine line maintenance of the collection system and daily operation of the wastewater treatment plant. As of 2023, the City of Enumclaw has 9.38 FTE supporting the Wastewater Utility, with approximately 7 FTE dedicated staff, including 1 FTE Supervisor, 1 FTE Sewer Civil Engineer, 2 FTE Line Maintenance Workers, and 3 FTE Wastewater Operators.

The Wastewater Utility operates a sewer collection system consisting of eleven lift stations and 54 miles of gravity collection main. Nine of the lift stations are City-owned while the remaining two (Sunrise and Thunder Mountain) are owned by the Enumclaw School District and on Enumclaw School District property (at Sunrise Elementary School and Thunder Mountain Middle School) and may be transferred to the City in the future. The 11 lift stations are documented in Exhibit U-9.

Exhibit U-9. City of Enumclaw Wastewater Utility, Lift Stations, 2023

Station	Station Year Built	Pump Year Installed	GPM	Horsepower	Generator
McHugh	1947	1984	400	7.5	Yes
Clovercrest	1962	1962	200	5	Portable
Rainier	1965	1965	350	5	Portable
Berilla	1990	2005	150	5	Portable
Willowgate	1990	1990	215	7.5	Yes
Chinook	1990	1990	215	7.5	Yes
Rainier Trails	1991	1991	150	7.5	Portable
Sunrise	1992	1992	120	3	Portable
Takoba	1995	1993	360	10	Portable

Thunder Mountain	2000	2000	260	15	Portable
Elk Meadows	2005	2005	325	7.5	Yes

Source: *City of Enumclaw, General Sewer Plan, March 2016.*

The sewer collection system includes about 48 miles of active collection and active customer service pipe that varies from 8 inches to 36 inches in diameter, as shown in Exhibit U-10.

Exhibit U-10. City of Enumclaw Wastewater Utility, Sewerage Pipe System Inventory, 2016

Pipe Diameter (in.)	Active Collection System Piping (ft.)	Active Customer Service Piping (ft.)
2 in.	-	1,650
4 in.	-	20,992
6 in.	-	122,501
8 in.	170,034	-
10 in.	31,962	-
12 in.	16,918	-
14 in.	2,930	-
16 in.	3,665	-
18 in.	4,415	-
24 in.	7,368	-
30 in.	4,660	-
36 in.	1,470	-
Subtotal	253,463	145,143
Abandoned	23,814	
Unknown	2,543	

Source: *City of Enumclaw, General Sewer Plan, March 2016.*

The Wastewater collected is treated at a centralized plant, the Enumclaw Wastewater Treatment Plant (WWTP). The WWTP was upgraded and expanded, reopening in November 2008, to increase the Wastewater Utility's treatment capacity. The WWTP includes a headworks and flow splitting pump station, chemically-enhanced primary treatment clarifiers, secondary treatment in anaerobic and anoxic zones, separation into an aeration basis, treatment in a secondary clarifier, and finally UV disinfection before discharge. Waste-activated sludge and any sludge pumped from the chemically-enhanced primary treatment clarifiers is dewatered using a belt filter and the final dewatered bio-solids are transported to Eastern Washington for beneficial application on agricultural land through King County's Loop Biosolids program.

Effluent from the WWTP is discharged on the North Bank of the Whie River, downstream of the State Route 410 Bridge, under a National Pollutant Discharge Elimination System (NPDES) permit issued by the Washington State Department of Ecology (Ecology).

The Washington State Department of Ecology (Ecology) is in the process of implementing TMDL limits for phosphorus on the lower White River to reduce its effect on pH levels in the

river. Reduced nutrient loading to the river, due to improvements in wastewater treatment at facilities like the Enumclaw WWTP, and changes in the diversion of flow from the White River, as a result of the acquisition of Lake Tapps water rights by the Cascade Water Alliance, has had a significant beneficial impact on river flows and pH levels. However, Ecology has concluded that further reductions in nutrient loading may be necessary to prevent future violation of pH water quality standards in the period from May to October. Work is in progress on determining whether or not any modifications to the WWTP will be required to meet the NPDES permit limits that will be imposed through the TMDL process.

While the upgrades to the WWTP which culminated in it's reopening in November 2008 establish adequate capacity to serve the expected growth in the City and UGA, the *City of Enumclaw, General Sewer Plan, March 2016* did identify approximately $15,807,000 (in 2015 dollars) in additional improvements needed over it's 20-year planning horizon. While some of these investments have been made, many remain, as shown in Exhibit U-11 and updated to 2023 dollars.

Exhibit U-11. City of Enumclaw Wastewater Utility 20-year Needs Analysis, 2023 Dollars

Project Number	Project	Cost Estimates	
		Actuals (2023$, rounded to nearest $100)	Updated (2024$, rounded to nearest $10,000)
CS-01	Buckley Road - Gravity Sewer	$1,998,700	$2,000,000
CS-02	Roosevelt Avenue East Gravity Sewers	$2,532,800	$2,540,000
CS-03	248th Lift Station	$6,830,000	$6,840,000
CS-04	24-in From Myrtine-Scandia to Across SR410	$798,800	$800,000
CS-05	24-in on Myrtine - Scandia to Roosevelt	$2,768,400	$2,770,000
CS-06	264th Ave Extension at TMMS	$1,055,200	$1,060,000
CS-07	Garret Park- Gravity Sewer	$56,900	$60,000
CS-08	Harding St - Kibler to Griffin	$1,965,500	$1,970,000
CS-09	Initial & Franklin - Remove Double Sewer	$179,200	$180,000
CS-10	Lincoln Avenue Gravity Sewer - Division to Cole	$820,000	$820,000
CS-11	Loraine St Kibler to Griffin and E on Griffin to Garfield	$2,323,000	$2,330,000
CS-12	Laframboise Alley Sewer Improvements	$569,900	$570,000
CS-13	Chinook LS (Based on Alt 2 provided by City)	$3,060,400	$3,060,000

Project Number	Project	Cost Estimates	
		Actuals (2023$, rounded to nearest $100)	Updated (2024$, rounded to nearest $10,000)
CS-14	**Roosevelt Avenue & SR410 (Design Only)**	$100,000	$100,000
CS-15	**Berilla LS Pumping Upgrade**	$82,800	$80,000
CS-16	**Misc Sewer Improvements**	$1,500,000	$1,500,000
CS-17	**Sewer Model Update and Analysis**	$150,000	$150,000
CS-18	**I & I Reduction / System Rehab**	$7,000,000	$7,010,000
CS-19	**Griffin Ave - Loraine to Farrelly**	$2,515,100	$2,520,000
CS-20	**244th Ave / Roosevelt Ave Sewer Extension**	$150,000	$150,000
CS-21	**Rainier LS Upgrade**	$82,800	$80,000
WWTP-01	**RBC Building Upgrade**	$2,523,000	$2,530,000
WWTP-02	**Headworks Screen Repl**	$1,000,000	$1,000,000
WWTP-03	**Centrifuge Dewatering System**	$1,600,000	$1,600,000
WWTP-04	**Equipment and Control Replacements**	$2,400,000	$2,400,000
WWTP-05	**Asset Mgmt System**	$250,000	$250,000
	TOTAL, 20-year (2024-2044)	**$44,312,500**	**$44,370,000**

These investments are expected to occur in the 20-year horizon of this Plan. but not in the next six years. Although some projects may occur as funding becomes available. It is expected that these capital improvements will be funded through utility rate payments from consumers.

SOLID WASTE

The City operates a Solid Waste Utility through which it offers a variety of solid waste collection and recycling services to both residential and commercial retail customers, including:

- Household Refuse Collection
- Curbside Recycling
- Yard Waste Collection
- Commercial Refuse Collection
- Commercial Recycling

The City does not provide large container service which is instead currently delivered privately by Waste Management Inc. Due to the specialized equipment involved that the City doesn't have, Waste Management provides large container service within the City limits.

The City's level of service for solid waste services is to maintain efficient and effective garbage, recycle, and yard waste collection programs. The Solid Waste Utility provides garbage and recyclables services to approximately 4,700 residential and commercial retail customers within the City's corporate boundaries and yard waste collection for 2,941 customers. The Solid Waste Utility does not serve the City's UGAs, which are instead served by King County through its private solid waste, recycling, and yard contractor, which is currently Waste Management, Inc. Other private solid waste service providers that King County could contract with in the future include Recology CleanScapes, Republic Services, and Waste Connections, Inc. In the event of annexation, annexed areas remain with the private hauler, Waste Management, for 7 years after annexation as allowed by state law. It is expected that, if annexation occurred, the City can use those seven years to plan for operating and capital impacts of expanding Solid Waste Utility services to the annexed area, minimizing the need to plan for annexation.

The City's Public Works Department is responsible for the operation and maintenance of the Solid Waste Utility while the City's Finance Department is responsible for utility billing, accounting, and customer service for it. Within the Public Works Department, the Operations Division operates garbage, commingled recycling, commercial cardboard recycling, and yard waste collection rotes and oversees container maintenance and procurement. As of 2023, the City of Enumclaw has 5.59 FTE supporting the Solid Waste Utility, with approximately 4 FTE dedicated solid waste workers.

Th Public Works Department is also responsible for the Solid Waste Utility's fleet which is not owned by the Utility but rather within Utility Bond Fund 455. City mechanics providing service at City Shops and coordinating necessary major out-of-shop repair and managing the City's fuel supply contract. An inventory of the fleet currently used by the Solid Waste Utility is provided in Exhibit U-12.

Exhibit U-12. City of Enumclaw Solid Waste Utility Fleet Inventory

Vehicle Number	Vehicle Description	Year Purchased
243	1995 Freightliner with Heil	1995
266	2000 Volvo with 25 Yard McNeil	2000
277	2002 Peterbilt with 20 Yard Heil	2002
306	2007 Peterbilt with Wayne Curbtender	2007
307	2007 Peterbilt with Wayne Curbtender Autoload	2007
325	2013 Peterbilt 320 with Packer	2012

This fleet is parked and maintained at the Public Works Maintenance Shop and Facility. The City plans for fleet replacement based on a 10-year lifespan, with newly retired trucks retained as backups and the oldest truck in the fleet sold as surplus. However, the City is significantly behind on replacement according to this standard. If this standard were maintained, all six of these vehicles would require replacement in the six-year capital improvement program, and secondary replacement within the 20-year capital improvement program.

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Exhibit U-13. City of Enumclaw Solid Waste Utility 20-year Needs Analysis, 2023 Dollars

Project	Cost (2024$, rounded to nearest $10,000)	Year
Replacement Truck	$240,000	2024
Replacement Truck	$240,000	2024
Replace cart and dumpsters	$50,000	2024
Replacement Truck	$250,000	2025
Replacement Truck	$260,000	2026
Replacement Truck	$270,000	2027
Replace cart and dumpsters	$240,000	2028
Replacement Truck	$360,000	2034
Replacement Truck	$360,000	2034
Replacement Truck	$380,000	2035
Replacement Truck	$400,000	2036
Replacement Truck	$410,000	2037
Replace cart and dumpsters	$360,000	2038
SUBTOTAL, SIX-YEAR (2024-2029)	$1,550,000	
SUBTOTAL, REMAINDER of 20-YEAR 2030-2044	$2,270,000	
TOTAL	$3,820,000	

The City performed a cost-benefit analysis which suggested conversion to front load collection (from rear load commercial collection). As a starting point to implement this conversion, the City has replaced two trucks in 2024. The City has also purchased new 1.5 yard and 8 yard commercial front load containers as part of this conversion. These investments were funded by general fund revenues, however, the City should consider funding these fleet investments through solid waste rate payments from consumers in the future, as paying for these investments with general funds is a subsidy of the solid waste utility.

While the City of Enumclaw's Solid Waste Utility provides solid waste collections, it is not responsible for ultimate disposal; that is King County's responsibility. King County operates a network of solid waste facilities, including the Enumclaw Transfer Station located in Enumclaw at 1650 Battersby Ave E. The refuse, recyclables, and yard waste collected by the City of Enumclaw's Solid Waste Utility is all taken to the Enumclaw Transfer Station. This waste is then tracked to King County's only active landfill, the Cedar Hill Regional Landfill. King County's *2019 Comprehensive Solid Waste Management Plan* evaluated King County's capacity for managing solid waste disposal over the next 20-years and found that further development of Cedar Hills will be necessary to meet regional disposal needs.

STORMWATER UTILITY

The City of Enumclaw's initial stormwater planning effort is documented in the Comprehensive Stormwater Drainage Plan prepared in 1978. At that time, it was determined that the City's storm drainage system would not accommodate storm runoff flow, due to undersized pipelines and overgrown ditches. That Plan suggested a four-phased approach to addressing these issues, which was partially implemented and then advanced in a subsequent report, the *1993 Stormwater Drainage Element*. As of 2019, essentially all projects from the 1978 and 1993 plans were either been completed or eliminated from further consideration, with the exception of projects to identify cross connections and inflow/infiltration between the stormwater and sanitary sewer systems. A sewer system evaluation to identify sources of inflow/infiltration to the sewer system was planned to begin in 2019.

Also during this period, in November 2017, the Enumclaw City Council, through Ordinance 2624, 2017 authorized the creation of a Stormwater Utility to properly fund the cost of all personnel, administration, equipment, maintenance, and stormwater projects. The City has established and codified in Enumclaw Municipal Code 14.10.510 that its stormwater system provides benefits and services to all property within the City's corporate limits. As such, all real property is subject to Stormwater Utility User Fees.

The City's level of service standard for stormwater is to comply with NPDES Phase II federal permitting requirements required under the federal Clean Water Act (CWA). The Phase II Permit allows the City of Enumclaw to discharge stormwater runoff from its drainage systems into the State's water bodies (e.g., groundwater, and streams) as long as the the City implements programs to protect water quality by reducing the discharge of stormwater pollutants to the "maximum extent practicable" through application of permit- specified programs, including through:

- Stormwater Planning
- Public education and outreach
- Public involvement and participation
- MS4 Mapping and Documentation
- Illicit discharge detection and elimination
- Controlling runoff from development and construction sites
- Municipal operations and maintenance
- Source control program for existing developments
- Compliance with total maximum daily load requirements
- Monitoring and assessment, and reporting

In addition to benefitting water quality, the above programs are also intended to reduce the potential for flooding caused by excessive stormwater runoff. The City's most recent NPDES Phase II Municipal Permit was issued August 1, 2019 and expires July 31, 2024.

In addition to the NPDES Phase II Permit, the City of Enumclaw must conform to several state and regional regulatory requirements, including the Watershed Management Act, and the Puget Sound Partnership Action Agenda. The Watershed Management Act (RCW Chapter 90.82) provides a statewide framework for water quality policy and establishing instream flows as well as salmonid habitat needs. The Puget Sound Partnership develops an

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Action Agenda which is focused around three strategic initiatives for the Puget Sound region:

- Prevent Pollution from Stormwater;
- Protect and Restore Habitat; and,
- Protect and Recover Shellfish Beds.

The Action Agenda includes two components: 1.) a Comprehensive Plan, which identifies actions for the long-term recovery of the Puget sound region and 2.) an Implementation Plan which identifies actions for the next two-year period.

The City's Public Works Department is responsible for the operation and maintenance of the Stormwater Utility while the City's Finance Department is responsible for utility billing, accounting, and customer service for it. Within the Public Works Department, the Engineering Division manage NPDES permit compliance activities, including development review, and develop and manage capital improvement projects. The operations division performs street sweeping and maintenance of public storm drainage catch basins, pipes, ditches, and ponds. As of 2023, the City of Enumclaw has approximately 3.85 FTE supporting the Stormwater Utility, including a 1 FTE Stormwater Program Manager.

As shown in Exhibit U-14, following, the City of Enumclaw's stormwater drainage system includes over 3000 catch basins, over 300 manholes, over 65 miles of piping, over 15 miles of ditches, 30 or more above ground stormwater facilities, and 15 or more underground stormwater facilities. Stormwater runoff leaving the City system ultimately discharge to the Boise and Newaukum Creeks which ultimately discharge into the White and Green Rivers.

Exhibit U-14. City of Enumclaw NPDES II Municipal Stormwater Permit Drainage District Map, 2023

[forthcoming]

Beyond the City of Enumclaw's stormwater drainage system, approximately 1/3 of the city limits and urban growth area is served by King County Drainage Districts 5/5A and 6. Though originally established to assist with draining fields for agricultural purposes, each of the districts has seen urban growth within a portion of their boundaries and will see additional growth in future years. Although the City and drainage district have overlapping jurisdictions, the systems that each maintain are separate.

Stormwater facilities to serve new development are required at the time of construction according the City's most recently adopted stormwater manual and NPDES permit.

Several CIPs have been identified to correct deficiencies or improve water quality in the City's storm drainage. These projects represent the

High Priority Projects

CIP 2: Commerce and Gamblin Streets

CIP 3: Chinook Winds Stormwater Facility

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CIP 7: Scandia/Myrtine/Johnson Flood Reduction

CIP 8: Expo Center North Parking Lot Stormwater Improvements

Medium Priority Projects

CIP 1: Battersby Avenue West Culvert Replacement

CIP 5: Decant Facility

CIP 6: McHugh Avenue Stormwater Infrastrucure

Additional Stormwater Management Action Plan Projects

- Battersby Stormwater Pond Retrofit
- RV Park Stormwater Pond Retrofit
- Farman Water Quality Facility
- Foothills Trail Riparian Plantings
- Commerce ROW Riparian Plantings
- Rainier Water Quality Facility

Problem Areas

PA 1: Drainage District Nos. 5 and 5A system repair / maintenance

PA 2: Drainage District No. 6 system repair / maintenance

PA 3: 244th Ave Stormwater Ditches

It is expected that these capital improvements will be funded through stormwater utility rate payments. However, the current rate of $7.50 per month per equivalent service unit (ESU) does not provide for capital reserves and only allows for completion of small capital projects annually (less than $25,000). Over the 20-year horizon of this Comprehensive Plan, the City will need to estimate the costs associated with this capital improvements, prioritize the projects, and appropriately increase the stormwater rate to fund sufficient reserves to complete these capital projects.

NON-MUNICIPAL UTILITIES

ELECTRICITY

Puget Sound Energy (PSE) is the electrical energy utility serving the City of Enumclaw. PSE is a private utility providing electric and, in most cases but not in Enumclaw, natural gas service to homes and businesses in Puget Sound region, covering 10 counties and approximately 6,000 square miles. Although PSE is a private utility, its operation and rates are governed by a public entity, the Washington Utilities and Transportation Commission (WUTC). It's operations are tightly regulated by the Federal Energy Regulatory Commission (FERC), the National Electric Reliability Corporation (NERC), and the Western Electricity

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Coordinating Council (WECC) that monitor, assess, and enforce compliance and reliability standards.

The City of Enumclaw and region rely on the coordinated effort between PSE and City for the adoption and enforcement of ordinances and/or codes to protect transmission and distribution line capacity and support federal and state compliance of safe, reliable, and environmentally sound operation of PSE's electric facilities. Routine utility work and vegetation management is required to maintain compliance with these FERC, NERC, and WECC regulations.

PSE relies on long-term planning to ensure that its customers have the infrastructure and electrical supply they need. As part of this, and as regulatorily required, PSE updates and files an Integrated Resource Plan (IRP) with the WUTC every two years. The IRP presents a long-term forecast of the lowest reasonable cost combination of resources necessary to meet the needs of PSE's customers over the next 20 years. PSE's most recent IRP was completed in 2021 and has a planning horizon of 2022 to 2045. The 2021 Plan is notable in that it outlines PSE's plans to eliminate coal from its electrical production by 2026, achieve greenhouse gas neutral generation by 2030, and achieve carbon neutral generation by 2045.

According to the 2021 IRP, as PSE retires coal from its electrical production, the utility may begin to experience a peak capacity shortfall as soon as 2026. Without additional energy conservation, the peak capacity need (plus the planning margin needed to ensure reliability) is 907 megawatts by 2027. That need is forecasted to be 2,921 megawatts in 2045. However, if PSE were to use all of the energy resources that it owns or contracts for, it could meet its electrical energy needs through 2031. Within the IRP, PSE then documents a preferred regional transmission portfolio for meeting its energy needs over a 24-year period. The strategies in this preferred portfolio show a mix of strategies that can continue to be optimized in delivering the electrical energy Enumclaw, and other Puget Sound residents served by PSE, need.

PSE is part of the western regional system, which means that the electricity is produced elsewhere and transported to users first through high-voltage transmission lines and then reduced and redistributed transmission substations, distributions substations, and transformers. Enumclaw is served by the Electron Heights to Enumclaw transmission line and Enumclaw substation. Within the City of Enumclaw, PSE operates and maintains approximately 8 miles of high-voltage transmission lines.

PSE is currently in the process of expanding and converting the Electron Heights to Enumclaw transmission line, which includes updating the Enumclaw Substation, to ensure they can continue to meet City of Enumclaw and regional electric demands and improve reliability. The first phase of this project was completed in 2009 and included rebuilding eight miles of existing 55 kV transmission line to 115 kV standards between Stevenson switch on Stevenson Ave in Enumclaw and a location near the Wilkeson substation (Church St in Wilkeson). The second phase of this project was completed in 2010 and continued Phase 1 by rebuilding an additional 12.2 miles of 55 kV transmission line to 115 kV standards between Wilkeson substation to the Electron Heights switching station on Electron Rd in Orting. Since 2019, PSE has been engaged in the third and largest phase of this project, which has involved:

- Building roughly 1.5 miles of 55 kV transmission line from a point outside the Enumclaw substation, along Garrett Street (following the existing distribution line) to a point on the existing 55 kV transmission line east of the Stevenson switching station.
- Building a new Buckley substation off 112th St E and demolish our old Buckley substation.
- Installing a 115 kV capacitor bank within our Krain Corner substation on 268th Ave SE in Enumclaw.
- Upgrading electrical equipment at our Enumclaw substation on Battersby Ave in Enumclaw.
- Rebuilding the Wilkeson substation from 55 kV to 115 kV and install a new 115 kV transformer and other related equipment. During construction, we will bring in a mobile substation unit to power the town reliably for nearby customers until the upgraded substation is complete.
- Installing a new fiber-optic line between the new Buckley substation and Krain Corner substation to improve communications amongst the new facilities.
- Removing old 55 kV equipment from the Electron Heights switching station.
- Converting the transmission system voltage from 55 kV to 115 kV.

It is estimated that these projects will be completed and operational in 2025.

TELECOMMUNICATIONS

Telecommunications, including landline, cable, cellular, fiber optic, and wireless television, internet, and phone services, are available in Enumclaw through a number of private companies including Comcast, Astound (Wave) Broadband, CenturyLink, T-Mobile, AT&T, and Verizon.

Under federal law, "franchising authorities," which in Washington State includes cities, including Enumclaw, can require cable television companies to negotiate a franchise (in other words, a contract) to provide cable television service, like cable television, within a municipality. The City of Enumclaw currently has 1 non-exclusive franchise with Comcast Xfinity cable, which is managed by City of Enumclaw Media Services, who negotiates, monitors, and enforces the franchise agreement. Enumclaw Media Services is also responsible for operating Enumclaw City Television Channel 21, city telecommunications equipment and service, city cellular telephone service, and this City of Enumclaw website.

As part of the City of Enumclaw's cable television franchise agreement with Comcast Xfinity, the City collects a franchise fee of 5% of gross revenues from the Comcast for their use of the city's rights-of-way. Cable subscribers also pay a Franchise Cost as part of their cable television bill that supports equipment for Enumclaw City Television (Channel 21). As part of the franchise agreement, Comcast Xfinity offers a 30% discount on their lowest tier cable services to older adults (those 65 years of age and older) and those with permanent disabilities living in the City of Enumclaw. To be eligible, these residents must have a household income that is no more than twice the federal poverty level or be eligible to participate in federal assistance programs like the Supplemental Nutrition Assistance Program, Medicaid, Lifeline, and the Free and Reduced Price Lunch and Breakfast program.

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The City of Enumclaw Media Services also assists cable subscribers in resolving complaints and answering questions regarding their cable service.

Landline telephone services are available in Enumclaw from CenturyLink and Comcast. Cellular telephone services are available on four networks including AT&T, T-Mobile, UScellular, and Verizon Wireless. There are 37 total carriers using these networks. Satellite phone service is also available through a number of carriers.

A variety of internet services (like cable, wi-fi, satellite, fiber optic, and cellular) area available in Enumclaw, from a number of internet providers, including Comcast, Astound (Wave) Broadband, CenturyLink, T-Mobile, AT&T, and Verizon.

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