Section 8: Capital Improvement Program

This section describes the Capital Improvement Program (CIP) for the WWTP and the wastewater collection system, including recommended improvements, cost estimates developments for the CIP, and funding sources.

8.1 Basin Plans

Basin plans encompassing basin descriptions, facility information, and recommended CIP improvements are available in Appendix C identically as they were developed in the 2014 WWCP update. Since being developed as part of the 2014 WWCP update, very few of the growth-related projects in the basin plans have been completed; therefore, an update was not produced as part of this 2024 WWCP While the recommended system improvements per the 2024 WWCP may have shifted towards other targeted infrastructure in the latest CIP, the efforts produced in the 2014 WWCP update remain valuable as a reference for possible future improvements in those basins.

8.2 Recommended System Improvements

Improvements are presented in multiple categories below with the respective naming convention:

C = Collection System
F = Facilities and Equipment
T = Wastewater Treatment Plant
M = Operations and Maintenance

New Service Area: Improvements related to New Service Areas (called NS projects) were not examined as part of this 2024 WWCP update. Very few of the NS projects identified in the 2014 WWCP update have been completed and were consequently excluded from the 2024 CIP. It is anticipated that any NS projects will be financed through grants or developer contributions, ensuring no impact on the City's existing financial framework. For a comprehensive list of projects identified as NS initiatives refer to Appendix C.

8.2.1 WWTP Improvements

T1 – Centrifuge Addition

The project scope will include the installation of a secondary centrifuge unit to enhance capacity for anticipated future growth and to provide redundancy during equipment downtime. Since 2019, the treatment plant has operated with a single centrifuge unit, leading to a cessation of dewatering processes during scheduled or emergency maintenance, thereby incurring increased sludge hauling costs. Additionally, the project will incorporate a solids cake pump to facilitate the transfer of thickened solids to the dumpster. This project is listed as WW00087.01 in the Wastewater CIP.

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T2 – Boiler System Reliability Improvements

The project will entail addition of a second boiler along with a gas scrubbing system to improve the life of the boilers. A separate room will be created in the existing shop space in the digester complex to accommodate the second boiler. Additions and modifications to the existing gas piping system will need to be made for the new boiler location and the gas treatment system. This project is listed as WW00087.05 in the Wastewater CIP.

T3 – Primary Clarifier Recycle Pumps Replacement

The treatment plant uses two pumps to recycle primary clarifier contents back to headworks, drain the clarifiers, and pump down the septage receiving wet well. These pumps have been in operation since the plant's original construction in 1985 and have reached the end of their service life. T3 will involve replacing the pumps with ones of similar capacity, maintaining the vortex-style impeller to handle heavy grit contents, but transitioning from a belt-drive to a direct-drive pump/motor combination.

T4 – Headworks Screen Improvements

The project will include a structural effort to introduce finer screens and increase the size of the headworks channels for screens 1 and 2. Additionally, there will be improvements to the I&C and electrical. A washer/compactor system is included in this scope to improve the condition of the screenings being hauled away. This project is listed as WW00087.10 in the Wastewater CIP.

T5 – Odor Control Stack Reinstallation

The project will be an installation of a single, 48-inch diameter, free standing exhaust stack that will connect to the existing fans. The City has reported noticeable odors near the plant at times, and there is belief that reinstalling the discharge stacks will solve the problem by discharging the treated air at a higher elevation and facilitating dilution of any residual odors. This project is listed as WW00087.13 in the Wastewater CIP.

T6 – Primary Effluent Line Rehabilitation

The existing primary effluent line dates from the original plant construction and the material, concrete cylinder pipe, is prone to failure. This project will replace the section of piping between the primary clarifiers and the PE pumps.

T7 – Headworks Odor Control System Upgrades

At the time of this project in the 20-year CIP, the existing odor control system for the headworks will have reached the end of its useful and will need to be replaced.

T8 – Digester Improvements

The project will consist of demolition of the existing mixing system and its replacement with a new pumped mixing system. Additionally, this project also includes replacing the existing floating covers on the two digesters with fixed covers which will result in reduced odors. The

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existing floating covers are from the original construction and have reached the end of their useful life. This project listed as WW00020 in the Wastewater CIP.

T9 – Third Digester – Study

A study will be conducted in order to understand the impacts from installation of a third anaerobic digester. Some of the considerations in this study will address redundancy concerns, capacity and future growth, hydraulic and solids loading, process efficiency, and operational and energy considerations.

T10 – Aeration Basin Supply Piping Replacement and Improvements for Selector

This improvement will replace the existing carbon steel air piping with stainless steel pipe of the same diameter (14-inch). The existing pipe is damaged and leaking air. The piping to be replaced is located between the blower room discharge header and the connection at the gooseneck at each aeration basin. Additionally, to improve the process efficiency, the configuration of anaerobic selectors will be modified by raising up divider walls with wooden planks and demolishing one side of the divider wall. This project is listed as WW00087.02 in the Wastewater CIP.

T11 – New Aeration Basins

This improvement will consist of installation of two, new 4-stage BNR aeration basins. It is anticipated this project will be required to meet compliance requirements due to the Nutrient General Permit.

T12 – Additional Secondary Clarifier – Study

Installation of a third secondary clarifier will be studied under this improvement project. A third clarifier was a recommendation from the hydraulic modeling of the WWTP completed with the current WWCP Update in 2024.

T13 – Grit System Upgrades

This project will include the demolition of the existing aerated grit chambers and installation of new grit chambers with new classifiers for each chamber. Modifications to the old headworks and the raw sewer line are also included. The existing lack of performance of grit chamber is resulting in overloading of grit to primary clarifiers and digester. The project will include an evaluation leading to the desired alternative, design, and construction.

T14 – Outfall Inspection

This project is study to inspect the existing WWTP outfall conditions. The outfall is original construction from the mid-1980s. The inspection results will support the City's evaluation to replace or upgrade the existing outfall system at the Westside WWTP.

T15 – Mixing Study

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This pre-design study aims to evaluate the key design parameters influencing the mixing of outfall discharge with the surrounding receiving waters at Sinclair Inlet. The findings will guide necessary outfall improvements by determining the optimal location, quantity, and size of the discharge ports.

T16 – WWTP Outfall Improvements – New Parallel Pipe to MH-4

This improvement will consist of new parallel pipe from the chlorine contact chambers effluent pipe to what is known as MH 4 in order to prevent a surcharging at upstream unit processes.

T17 – WWTP Outfall Improvements – New Outfall

This project will include installation of a new deepwater outfall to replace or parallel the existing outfall. The new outfall pipe will allow discharge of larger volumes of treated wastewater.

T18 – WWTP Disinfection System Improvements

This improvement project involves installing an additional chlorine contact chamber (CCC) for the disinfection process, along with modifications to the inlet and outlet channels. However, based on further discussions with city operations staff, converting to a UV disinfection system is the preferred approach versus adding an additional CCC due to costs and availability concerns of chemical. The costs outlined in the CIP are based on the installation of an additional CCC.

T19 – Primary Filtration Feasibility Study

This study will evaluate and make recommendations to improve the efficiency of the existing primary clarification process.

T20 – Arc Flash Testing

Arc flash testing will be done for the electrical equipment system at the treatment plant to evaluate the potential hazards from equipment arc flash and to evaluate the safety and performance of the personal protective equipment (PPE) when exposed to the intense energy of an arc flash event.

T21 – Nutrient General Permit Improvements Program

This program is an annual retainer for on-call consultant services to assist the City in navigating upcoming changes at the WWTP due to the Puget Sound Nutrient General Permit. This is listed as project WW00053 in the Wastewater CIP.

8.2.2 Collection System Improvement Projects

C1 – North PSIC Wastewater Improvements

Improvements in North PSIC will consist of the design and construction of new pump stations and conveyance infrastructure sized for 20-year projected build-out flows. The flow from PSIC will be pumped to existing pump station SB-3 in Gorst. The City anticipates that private or grant funding would be required for the construction of this infrastructure. A separate analysis of several alternatives for PSIC was performed and is available in Appendix H.

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C2 – South PSIC Wastewater Improvements

Improvements in South PSIC will consist of the design and construction of new pumping and conveyance infrastructure to send flows generated from this area to North PSIC and Mason County. An agreement with Mason County will be required to send flow to Mason County. The City anticipates that private or grant funding would be required in the near term for the construction of this infrastructure. A separate analysis of several alternatives for PSIC was performed and is available in Appendix H.

C3 – Crosstown Pipeline Improvements – Phase 1

Improvements on the Crosstown Pipeline will consist of installing a new pipeline to the WWTP beginning near the intersection of 9th Street and Montgomery Avenue. This new pipeline will increase the overall capacity of the Crosstown Pipeline and allow for additional redundancy. Loan or grant funding would be required for the construction of this new pipeline. A separate analysis of two (2) conceptual alternatives for the new pipeline was performed and is available in Appendix G.

C4 – Crosstown Pipeline Improvements – Phase 2

After construction of Phase 1 is complete, the new pipeline will be placed online while the existing pipeline will be taken offline to undergo rehabilitation. Loan or grant funding would be required for the construction of this project. A separate analysis of two (2) conceptual alternatives for the new pipeline and rehabilitation of the existing pipeline was performed and is available in Appendix G.

C5 – Oyster Bay Sewer Basin Upgrades

This upgrade includes design and construction of low-pressure sewer systems for properties along Shorewood Drive and part of Madrona Point Drive that front Ostrich Bay which will allow the City to decommission beach sewers or convert them to dedicated force mains with no lateral connections. The properties are between pump stations OB-5 and OB-2 and OB-3 and OB-2. Upgrading OB-2 is also part of this project and will allow the City to pump into the upland 4,000 foot, 12-inch HDPE force main installed in 2022 and abandon the existing 12-inch force main located along the bottom of Oyster Bay. The City anticipates loan funding for this work. Additionally, the City is considering extending the beach sewer decommissioning further north to OB-6 (on Navy property), which would require loan or grant funding. These projects are currently listed as individual projects in the Wastewater CIP (WW00011, W00012, and WW00065). A detailed technical memorandum is attached in Appendix I.

C6 – Central Bremerton Force Main Improvements

Sections of the Central Bremerton Force Main (CBFM) were determined to be failing in December 2023. This critical force main conveys sewage from downtown Bremerton and the east half of the Navy shipyard. This project will replace approximately 3,100 LF of the CBFM from Montgomery Avenue to the surge chamber at Gregory Way and High Avenue. The construction is funded by a grant and is listed as project WW00091 in the Wastewater CIP.

C7 – EB Beach Main Replacement (OF-4 to OF-3)

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The existing beach sewer between OF-3 and OF-4 is made of 18-inch ductile and located in an intertidal zone. Metallic pipe in this type of environment is more prone to failure from corrosion. The project will replace the existing 2500 feet of metallic pipe with a plastic pipe (e.g. HDPE) to increase the longevity and reduce the potential for a sanitary sewer discharge in the marine environment. It is anticipated that this project will be loan funded and is project WW00051 in the Wastewater CIP.

C8 – EB-2 Seawall

The existing seawall supporting the EB-2 wet well and an adjacent stormwater outfall is undermining and has cracked due to wave action. This project will design and replace the wall. This is project is WW00090 in the Wastewater CIP.

C9 – Decommission Beach Sewer in Manette (OF-4 to EB-2)

The existing 1,500 LF of 8-inch sanitary sewer buried along the beach between E. 16th Street and EB-2 (next to the Manette Bridge) is very difficult to access for maintenance and the City desires to remove sanitary sewers from the marine environment when feasible. The project will construct a municipal pump station at E. 16th Street and an upland low pressure sewer system for the properties that discharge to this sewer in order to decommission this beach sewer. The design and construction of this project is loan funded and is project WW00004 in the Wastewater CIP.

C10 – Force Main Corrosion Testing

This project will assess the condition of the force mains to identify corrosion risks, including the two critical siphon mains that are located along the bottom of Port Washington Narrows between East and West Bremerton. This is project WW00006 in the Wastewater CIP.

C11 – Sewer Main Replacement and Rehab Program

This is an annually funded program for replacement or rehabilitation of sewer mains that are determined to be failing or near failure. The work may be done by City staff or a contractor. This is project WW00014 in the Wastewater CIP.

C12 – Sewer Main Replacement with Pavement Reconstruction

This is an annually funded program for replacement or rehabilitation of sewer mains determined to be failing or near failure. The work is typically done in anticipation of a future road reconstruction project or the work will require significant roadway repair. The work may be done by City staff or a contractor. This is project WW00015 in the Wastewater CIP.

C13 – Tracyton Beach Main Conversion

In order to avoid surcharging, the existing gravity sewer along Tracyton Beach Road must be maintained nearly weekly by City staff due to poor velocity and flow through the pipe. The City will convert the existing gravity sewer along this road between NW Carter Farms Ct and Gerard Place to a standard force main with two pump stations and some gravity sewer. This is project WW00036 in the Wastewater CIP and is loan-funded.

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C14 – CIPP Rehabilitation Project

This is an annual program for rehabilitating sewer mains using the cure-in-place-pipe method. The work is done by a contractor and also includes video and inspection of additional mains to program for future rehabilitation projects. Typically 6,000 to 8,000 feet of pipe is rehabilitated each summer. This is project WW00003 in the Wastewater CIP.

8.2.3 Operations and Maintenance

M1 – PE Pump Room Controls Relocation/Improvements

Improvements related to the controls in primary effluent pump room are included in this project. The existing control panel is located in the same below-grade room as the PE pumps and could be exposed to flooding by sewage in the event of pump failure or a pipe break. The project will relocate the controls to a more secure location. This is project WW00072 in the Wastewater CIP.

M2 – Machinery/Equipment – Utility Operations Manager

This is an annual program for any machinery or equipment for operations and maintenance to be installed between the years 2025-2030.

M3 – Pump Station SCADA and Controls Upgrade

This is an annual program to continually improve and upgrade the SCADA system and controls at the pump stations.

M4 – Installation of Emergency Generator Program

This is an annual program to provide emergency power generation at the pump stations for resiliency.

M5 – Pump Station Improvements Program

This is an annual program to continually upgrade and improve pump stations, including pumps, electrical systems, piping, and facilities.

M6 – I&I Reduction Program

This is an annual program to reduce the I&I in the City's sewer collection through disconnection of downspouts and catch basins, lateral lining, main lining, and manhole lining. Reducing I&I will reduce flow to pump stations and the treatment plant and reduce potential for surcharges in the sewer system.

M7 – Collection System Capacity Improvements

This is an annual program and includes collection system capacity improvements due to growth for the 20-year horizon.

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8.2.4 Facilities and Equipment

F1 – Installation of Emergency Generator Program

This is an annual program to provide emergency power generation at the pump stations for resiliency during power outages.

8.3 Project Prioritization

The risk scores developed as described in Chapter 4 of this WWCP update were leveraged in part to guide the prioritization of recommended improvements. The correlation between developed risk scores and identified areas for improvement can be seen in Figure 8-1. Some program-based recommendations are apparent through the entire collection system and are not assigned a specific asset area, including C11-C13, and M1-M7.

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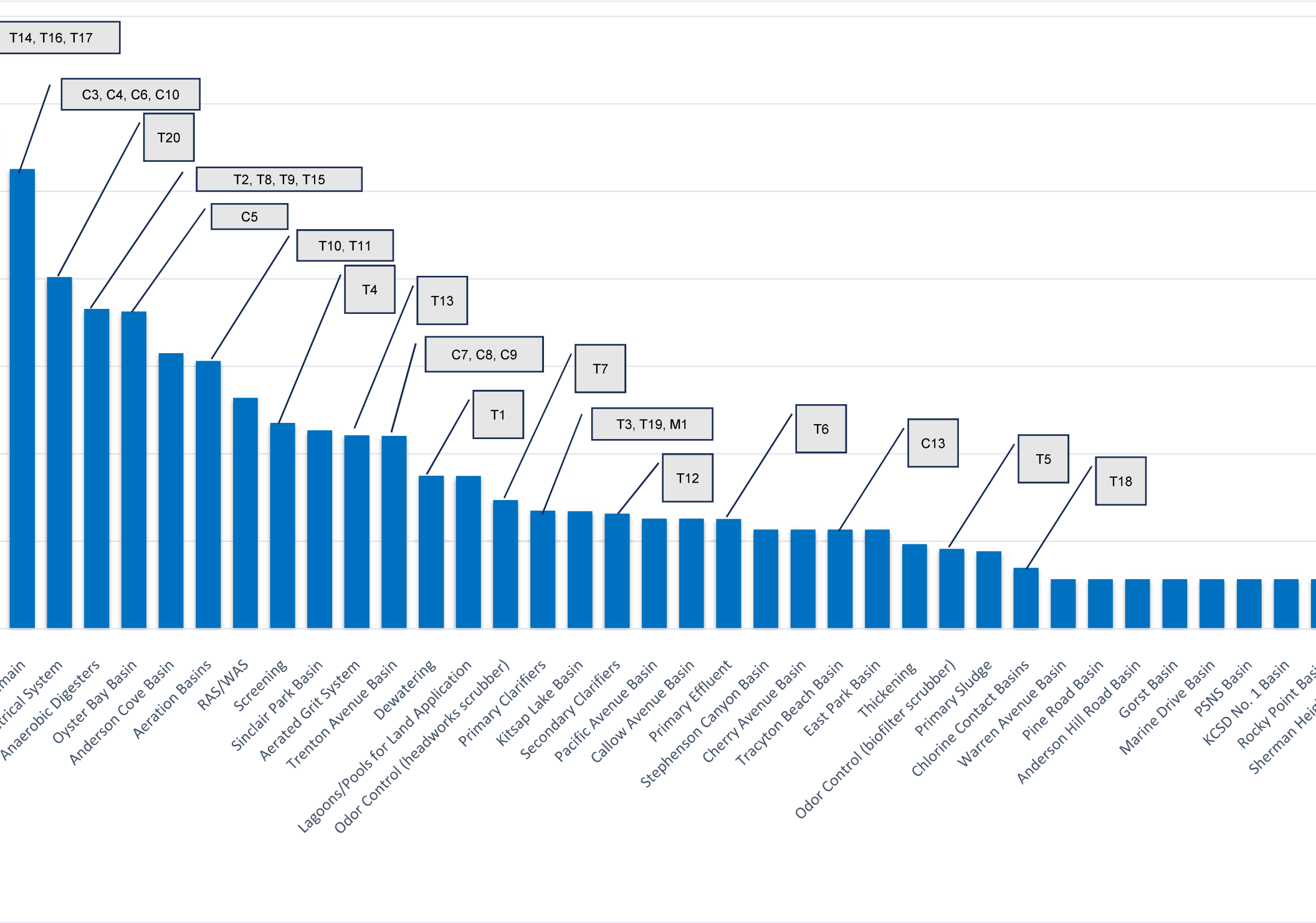

Figure 8-1: System Risk Evaluation and Identified CIP Improvements

8.4 CIP Development and Cost Estimates

The 20-year CIP schedule summary shown in Figure 8-2 below was developed to address infrastructure needs to meet growth, environmental regulations, and improvements in existing operations and reliability. Costs for each project are based on engineering estimates and actual costs from similar engineering and construction work. Costs include a construction contingency of 30% as well as allowances for engineering, construction management, owner's administration (where applicable), permitting, startup, taxes, administrative fees, and contractor overhead & profit. Estimated costs are in 2024 dollars and based on Engineering News Record (ENR) material and building cost indexes.

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	Location	Replacement	Upgrade	New	Opinion of Probable Project Cost[1]	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	20
	WWTP		☑		$ 1,400,000		$ 1,400,000														
	WWTP		☑		$ 2,478,000		$ 2,478,000														
ement	WWTP	☑			$ 476,000							$ 476,000									
	WWTP		☑		$ 2,410,000			$ 2,410,000													
	WWTP	☑			$ 391,000	$ 391,000															
	WWTP	☑			$ 1,000,000		$ 1,000,000														
	WWTP			☑	$ 2,344,000															$ 1,172,000	$ 1
	WWTP		☑		$ 7,993,000															$ 1,789,000	$ 3
	WWTP			☑	$ 300,000														$ 300,000		
ent and Improvements	WWTP	☑			$ 413,000		$ 413,000														
	WWTP			☑	$ 60,459,000									$ 4,000,000	$ 18,820,000	$ 18,820,000	$ 18,819,000				
	WWTP			☑	$ 200,000														$ 200,000		
	WWTP		☑		$ 8,707,000										$ 2,902,000	$ 2,902,000	$ 2,903,000				
	WWTP				$ 250,000	$ 250,000															
	WWTP				$ 250,000	$ 250,000															
allel Pipe to MH-4	WWTP		☑		$ 2,649,000		$ 2,649,000														
fall	WWTP			☑	$ 20,924,000							$ 6,975,000	$ 6,975,000	$ 6,974,000							
nts	WWTP		☑		$ 7,027,000																
	WWTP		☑		$ 200,000																
	WWTP		☑		$ 700,000						$ 700,000										
	S.L				$ 50,000,000													$ 5,000,000	$ 15,000,000	$ 15,000,000	$ 15,
	S.L			☑	$ 16,600,000	$ 500,000	$ 1,100,000										$ 2,000,000	$ 6,500,000	$ 6,500,000		
se I	S.L			☑	$ 13,000,000							$ 6,500,000	$ 6,500,000								
se II	S.L		☑		$ 7,000,000								$ 3,500,000	$ 3,500,000							
	S.L		☑		$ 5,500,000	$ 100,000	$ 300,000	$ 3,100,000	$ 2,000,000												
nent	S.L		☑		$ 7,200,000	$ 7,200,000															
F3)	S.L				$ 1,700,000					$ 300,000	$ 1,400,000										
	S.L		☑		$ 700,000		$ 200,000	$ 300,000	$ 200,000												
on Improvements	ETP		☑		$ 4,000,000	$ 1,000,000	$ 3,000,000														
	WWTP			☑	$ 500,000	$ 500,000															
provements	WWTP		☑		$ 1,500,000				$ 1,500,000												
(OF-4 to EB-2)	S.L		☑		$ 5,212,000	$ 4,170,000	$ 1,042,000														
	VAR			☑	$ 200,000	$ 200,000															
s Manager	WWTP			☑	$ 300,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000										
rogram	VAR	☑			$ 5,000,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$
nt Reconstruction	VAR	☑			$ 6,000,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$
	S.L	☑			$ 4,400,000	$ 4,400,000															
rade	VAR		☑		$ 3,300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000					
Program	WWTP			☑	$ 500,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000											
gram	VAR			☑	$ 600,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000										
	VAR		☑		$ 6,000,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$
	VAR	☑			$ 5,000,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$
	VAR	☑			$ 9,750,000	$ 750,000	$ 750,000	$ 750,000	$ 750,000	$ 750,000	$ 750,000	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$
nts	VAR		☑		$ 4,400,000										$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$
Totals					$ 278,933,000	$ 21,361,000	$ 15,982,000	$ 8,210,000	$ 6,100,000	$ 2,700,000	$ 4,400,000	$ 15,951,000	$ 18,975,000	$ 16,474,000	$ 24,122,000	$ 24,122,000	$ 25,472,000	$ 13,250,000	$ 23,750,000	$ 19,711,000	$ 20,

Figure 8-2: 20-Year CIP Schedule

8.5 Financial Plan

This section was prepared by FCS to provide a financial program that allows the City of Bremerton wastewater utility to remain financially viable during the planning period. This financial viability analysis considers the historical financial condition, current and identified future financial and policy obligations, operation and maintenance needs, and the financial impacts of the capital projects identified in this Wastewater Comprehensive Plan. Furthermore, this chapter provides a review of the wastewater utility's current rate structure with respect to rate adequacy and customer affordability.

8.5.1 Past Financial Performance

This section includes a historical summary of financial performance as reported by the City, including fund resources and uses arising from cash transactions.

8.5.1.1 Comparative Financial Statements

The City legally owns and operates a wastewater utility. Transactions shows a summary of wastewater fund resources and uses arising from cash transactions for the 6-year period of 2017 through 2022. The 2023 and 2024 financial statements were not available at the time the chapter was developed. Table 8-2 shows a summary of assets and liabilities, with the difference between the two reported as "net position". Increases and decreases in net position are useful indicators of the financial position of the City's utility. Noteworthy findings and trends for the historical performance and condition of the City's wastewater utility are then discussed.

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Table 8-1: Summary of Historical Fund Resources and Uses Arising from Cash Transactions

Description	2017	2018	2019	2020	2021	2022
OPERATING REVENUES						
Charges for Services	$ 14,879,928	$ 15,544,747	$ 15,266,217	$ 15,963,782	$ 16,454,900	$ 17,913,394
Other Operating Revenues	17,636	17,079	15,829	6,889	-	29,088
Total Operating Revenues	$ 14,897,564	$ 15,561,826	$ 15,282,046	$ 15,970,671	$ 16,454,900	$ 17,942,482
OPERATING EXPENSES						
Operations and Maintenance	$ 9,306,135	$ 10,743,147	$ 10,761,240	$ 10,078,565	$ 10,783,182	$ 11,629,604
Customer Service and Marketing	160,259	175,447	206,800	198,885	301,952	390,093
General Administration	73,393	138,470	198,985	726,266	157,941	218,661
Depreciation and Amortization	3,694,103	3,626,201	4,125,945	4,202,688	4,376,318	4,407,876
Total Operating Expenses	$ 13,233,890	$ 14,683,265	$ 15,292,970	$ 15,206,404	$ 15,619,393	$ 16,646,234
Operating Income (Loss)	$ 1,663,674	$ 878,561	$ (10,924)	$ 764,267	$ 835,507	$ 1,296,248
NONOPERATING REVENUES (EXPENSES)						
Interest and Investment Revenue	$ 92,723	$ 231,648	$ 241,156	$ 54,704	$ 3,167	$ (49,917)
Interest Expense	(514,674)	(405,010)	(353,208)	(310,470)	(261,045)	(305,640)
Gain (loss) on Capital Asset Disposal	(147,218)	(17,880)	(12,838)	(15,273)	-	-
Other Nonoperating Revenue/Expense	141,656	89,990	365,312	78,133	102,543	5,148
Total Nonoperating Revenues (Expenses)	$ (427,513)	$ (101,252)	$ 240,422	$ (192,906)	$ (155,335)	$ (350,409)
Income (Loss) Before Contributions and Transfers	$ 1,236,161	$ 777,309	$ 229,498	$ 571,361	$ 680,172	$ 945,839
Capital Contributions	1,614,984	2,144,398	95,062	1,454,741	2,000,664	1,328,946
Transfers From Other Funds	-	114,543	-	-	-	-
Change In Net Position	$ 2,851,145	$ 3,036,250	$ 324,560	$ 2,026,102	$ 2,680,836	$ 2,274,785
Total Net Position - Beginning	87,578,789	90,429,934	93,466,184	93,790,745	97,640,845	100,488,922
Prior Period Adjustment	-	-	-	1,824,000	167,242	-
Total Net Position - Ending	$ 90,429,934	$ 93,466,184	$ 93,790,744	$ 97,640,847	$100,488,923	$102,763,707
O&M Coverage Ratio	112.6%	106.0%	99.9%	105.0%	105.3%	107.8%
Net Operating Income as a % of Operating Revenue	11.2%	5.6%	-0.1%	4.8%	5.1%	7.2%
Debt Service Coverage Ratio	2.30	2.09	1.92	2.79	4.58	3.98

Note: Table may include minor differences from statements due to rounding.

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8.5.1.2 Table 8-1 Findings and Trends

- The City's sewer charges for services increased from $14.9M in 2017 to $17.9M in 2022. The average annual increase was approximately 3.8 percent per year, with a total increase of 20.4 percent from 2017 to 2022. Charges for service increased each year, except for 2019 where revenues fell by 1.8 percent. Operating expenditures increased by $3.4M across the six years with an average annual increase of 4.7 percent. Expenditures increased each year except for 2020 where expenses fell by 0.6 percent. While the growth in operating expenses has outpaced growth in operating revenues, the operating income has been positive in five of the last six years, with 2019 being the exception, where the utility posted an operating loss of $11,000.

- The O&M coverage ratio (total operating revenues divided by total operating expenses) was 112.6 percent in 2017. With relatively stable revenues and expenses, this metric has maintained its stability, ending 2022 at 107.8 percent. A ratio of 100.0 percent or greater shows that operating revenue will successfully cover operating expenses, and the utility has remained above this ratio for 5 of the last 6 years. With 2019 being the exception when the ratio decreased to 99.9 percent.

- Net operating income as a percentage of operating revenue was 11.2 percent in 2017, decreasing to negative 0.1 percent in 2019, before recovering back to 7.2 percent by 2022. Similar to the O&M coverage ratio, these trends show how successfully operating revenue actually covered operating expenses, with higher positive numbers being the best and negative numbers showing a need for improvement. In addition, these trends demonstrate the ability of the utility to invest in capital, whether through direct cash transfers or the issuance and servicing of debt.

- The debt service coverage ratio measures the amount of cash flow available to meet principal and interest payments. Typically, revenue bond debt service coverage requires a minimum factor of 1.25 during the life of the loans. This ratio is calculated by dividing cash or net operating income (operating revenues less operating expenses) by annual revenue bond debt service. The City's annual reports did not separate the debt service between revenue bond debt and junior lien debt; therefore, the coverage ratios were calculated on total debt, which is a more conservative comparison. The total debt service coverage ratio for all outstanding debt ended 2017 at 2.3, decreased to 1.9 in 2019 as operating revenues decreased and operating expenses increased before rebuilding to 4.0 in 2022. The fact that this ratio has sustained levels higher than the minimum target of 1.25 indicates a stable capacity for new debt and will likely result in favorable terms when entering the bond market.

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Table 8-2: Summary of Historical Comparative Statements of Net Position

Description	2017	2018	2019	2020	2021	2022
ASSETS AND DEFERRED OUTFLOWS						
Current Assets:						
Cash and Cash Equivalents	$ 5,609,732	$ 4,798,123	$ 2,981,649	$ 3,360,451	$ 2,912,178	$ 4,939,491
Restricted Cash	641,128	678,214	307,478	384,329	378,416	131,966
Investments	6,566,614	6,551,413	3,126,643	2,528,042	1,392,100	3,555,558
Restricted Investments	898,543	886,389	799,332	683,720	554,332	659,093
External Receivables	2,730,833	2,613,478	2,745,349	2,694,635	2,238,938	2,162,103
Interest Receivables	19,722	23,821	17,072	12,589	4,856	19,108
Due From Other Funds	430,916	53,320	318,439	2,982,127	5,621,471	3,510,952
Inventories	582,295	577,021	577,710	587,758	629,782	662,540
Total Current Assets	$ 17,479,783	$ 16,181,779	$ 10,873,672	$ 13,233,651	$ 13,732,073	$ 15,640,811
Noncurrent Assets:						
Net Pension Asset	$ -	$ -	$ -	$ -	$ 1,736,303	$ 658,724
Capital Assets Not Being Depreciated	-	-	8,466,819	3,150,523	7,500,113	11,379,780
Capital Assets Net of Depreciation	94,061,888	96,522,265	92,126,926	96,065,525	93,213,617	92,704,550
Total Noncurrent Assets	$ 94,061,888	$ 96,522,265	$100,593,745	$ 99,216,048	$102,450,033	$104,743,054
Total Assets	$111,541,671	$112,704,044	$111,467,417	$112,449,699	$116,182,106	$120,383,865
Deferred Outflows of Resources	$ 168,046	$ 190,330	$ 253,900	$ 261,796	$ 232,171	$ 693,638
Total Assets and Deferred Outflows	$111,709,717	$112,894,374	$111,721,317	$112,711,495	$116,414,277	$121,077,503
LIABILITIES AND DEFERRED INFLOWS						
Current Liabilities:						
Accounts/Contract Payable	$ 280,677	$ 930,317	$ 1,483,081	$ 616,828	$ 468,842	$ 483,508
Due to Other Funds	348,620	446,195	514,601	574,100	837,923	206,017
Employee Wages Payable	195,547	220,543	129,463	121,678	128,376	118,646
Other Accrued Liabilities	72,078	61,631	129,111	111,026	90,233	147,350
Current Portion of Long-Term Debt	2,327,106	2,156,563	2,142,795	1,778,608	1,137,512	1,434,378
Custodial Accounts	-	30,292	-	36,235	34,310	34,310
Other Current Liabilities	-	-	58,170	5,611	13,990	55,270
Total Current Liabilities	$ 3,224,028	$ 3,845,541	$ 4,457,221	$ 3,244,086	$ 2,711,186	$ 2,479,479
Noncurrent Liabilities:						
Bonds, Notes and Loans Payable	$ 16,614,318	$ 14,419,022	$ 12,236,698	$ 10,791,514	$ 11,150,085	$ 14,710,616
Net Pension Liability	1,071,868	585,488	659,063	715,402	173,138	367,851
Compensated Absences	155,423	150,187	114,421	101,889	86,450	76,376
Total Noncurrent Liabilities	$ 17,841,609	$ 15,154,697	$ 13,010,182	$ 11,608,805	$ 11,409,673	$ 15,163,622
Total Liabilities	$ 21,065,637	$ 19,000,238	$ 17,467,403	$ 14,852,891	$ 14,120,859	$ 17,643,101
Deferred Inflows of Resources	$ 214,146	$ 427,952	$ 463,170	$ 217,759	$ 1,804,496	$ 670,695
Total Liabilities and Deferred Inflows	$ 21,279,783	$ 19,428,190	$ 17,930,573	$ 15,070,650	$ 15,925,355	$ 18,313,796
NET POSITION						
Net Investment in Capital Assets	$ 75,847,117	$ 79,946,680	$ 86,214,252	$ 86,645,925	$ 88,426,133	$ 87,930,545
Restricted for Capital Assets	726,654	-	-	-	-	-
Restricted for Debt Service	1,541,784	1,476,711	1,507,371	1,068,049	932,748	791,059
Restricted for Pension	-	-	-	-	316,955	697,172
Unrestricted	12,314,379	12,042,793	6,069,122	9,926,872	10,813,086	13,344,931
Total Net Position	$ 90,429,934	$ 93,466,184	$ 93,790,745	$ 97,640,846	$100,488,922	$102,763,707
Current Ratio	5.42	4.21	2.44	4.08	5.06	6.31
Debt to Net Position Ratio	0.21	0.18	0.15	0.13	0.12	0.16
Debt to Noncurrent Capital Asset Ratio	0.20	0.17	0.14	0.13	0.12	0.16

Note: Table may include minor differences from statements due to rounding.

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8.5.1.3 Table 8-2 Findings and Trends

- The current ratio is calculated by dividing unrestricted current assets by current liabilities and measures an entity's ability to pay short-term obligations. This ratio ranges from a low of 2.4 in 2019 to a high of 6.3 in 2022. Anything above 2.0 for this liquidity ratio is good.

- The Debt to Net Position Ratio compares total debt to total net position, which is the difference between total assets and liabilities. This ratio ranged from a high of 0.21 or 21 percent in 2017 to a low of 0.12 or 12 percent in 2021. For utilities, a ratio of 40 to 60 percent helps to moderate rate impacts by spreading costs over a longer period of time. Based on these results, the City may consider utilizing debt service for future capital investments, especially if it benefits system expansion. At 40 to 60 percent the wastewater utility's total borrowing would range between $38 million to $59 million based on historical metrics.

- The Debt to Noncurrent Capital Asset Ratio compares total debt to noncurrent capital assets, which are also known as property, plant and equipment. This ratio begins at 0.20 or 20 percent debt to 80 percent noncurrent assets in 2017. Noncurrent capital assets increase by $10.0 million throughout the six-year history while debt decreased by $1.9 million, and the ratio decreased to 16 percent by 2022. Similar to the debt to net position ratio, these results indicate the utility has ample borrowing capacity and may consider utilizing debt service for future capital investments, especially if it benefits system expansion. A ratio of 40 percent debt to 60 percent equity or below is a general industry target. At 40 percent the wastewater utility's total borrowing would be approximately $38 million based on historical metrics.

8.5.2 Financial Plan

The wastewater utility is responsible for generating sufficient revenue to meet all of its costs. The primary source of funding is derived from ongoing monthly service charges, with additional revenue coming from miscellaneous non-rate revenues and interest earnings. The City controls the level of user charges and, with City Council approval, can adjust user charges as needed to meet financial objectives.

The financial plan can only confirm financial feasibility if it considers the total system costs of providing wastewater services, both operating and capital. To meet these objectives, the following elements have been completed.

1. **Capital Funding Plan**. Identifies the total capital improvement plan (CIP) obligations of the planning period. The plan defines a strategy for funding the CIP, including an analysis of available resources from rate revenues, existing reserves, connection charge revenues, debt financing, and any special resources that may be readily available (e.g., grants, developer contributions, etc.). The capital funding plan impacts the financial plan through the use of debt financing (resulting in annual debt service) and the assumed rate revenue made available for capital funding.

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2. **Financial Forecast**. Identifies future annual non-capital costs associated with the operation, maintenance, and administration of the wastewater system. Included in the financial plan is a reserve analysis that forecasts cash flow and fund balance activity, along with testing for satisfaction of actual or recommended minimum fund balance policies. The financial plan ultimately evaluates the sufficiency of utility revenues in meeting all obligations, including cash uses such as operating expenses, debt service, capital outlays, and reserve contributions, as well as any coverage requirements associated with long-term debt. The plan also identifies the future adjustments required to fully fund all utility obligations in the planning period.

8.5.2.1 Capital Funding Plan

To properly evaluate future capital funding needs, capital costs were escalated by 4.00 percent annually to the year of planned spending. The CIP developed for this WWCP identifies $178.1M in escalated project costs over the 2024 budget year and 10-year planning horizon from 2025-2034. The budget year and 20-year period, through 2044, includes $429.3M in total escalated project costs.

A summary of the 2024 budget year and 10-year and 20-year CIPs are shown in Table 8-3. As shown, each year has varied capital cost obligations depending on construction schedules and infrastructure planning needs.

Table 8-3: Budget and 10-Year and 20-Year CIPs

Year	2024 $	Escalated $
2024	$ 7,246,253	$ 7,246,253
2025	21,361,000	22,215,440
2026	15,982,000	17,286,131
2027	8,210,000	9,235,133
2028	6,100,000	7,136,137
2029	2,700,000	3,284,963
2030	4,400,000	5,567,404
2031	15,951,000	20,990,428
2032	18,975,000	25,968,598
2033	16,474,000	23,447,639
2034	24,122,000	35,706,453
Total	**$ 141,521,253**	**$ 178,084,578**
2035-2044	144,658,000	251,171,346
Total	**$ 286,179,253**	**$ 429,255,925**

Table 8-4 provides more detail for the 2024 budget year and 10-year CIP.

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Table 8-4: Budget Year and 10-Year CIP

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Centrifuge Addition			$ 1,514,240								
Boiler System Reliability Improvements			2,680,205								
Primary Clarifier Recycle Pumps Replacement								626,384			
Headworks Screen Improvements				2,710,922							
Odor Control Stack Reinstallation		406,640									
Primary Effluent Line Rehabilitation			1,081,600								
Aeration Basin Supply Piping Replacement and Improvements for Selector			446,701								
New Aeration Basins										5,693,247	27,858,197
Grit System Upgrades											4,295,669
Outfall Inspection		260,000									
Mixing Study		260,000									
WWTP Outfall Improvements - New Parallel Pipe to MH-4			2,865,158								
WWTP Outfall Improvements - New Outfall								9,178,624	9,545,769	9,926,177	
Arc Flash Testing							885,723				
South PSIC Wastewater Improvements		520,000	1,189,760								
Crosstown Pipeline Improvements - Phase I								8,553,557	8,895,699		
Crosstown Pipeline Improvements - Phase II									4,789,992	4,981,591	
Oyster Bay Sewer Basin Upgrades		104,000	324,480	3,487,078	2,339,717						
Central Bremerton Force Main Improvement	800,000	7,488,000									
EB Beach Main Replacement (OF4 to OF3)						364,996	1,771,447				
EB-2 Seawall			216,320	337,459	233,972						
Eastside Treatment Plant - UV Disinfection Improvements		1,040,000	3,244,800								
WWTP Facility Plan		520,000									
PE Pump Room Controls Relocation/Improvements					1,754,788						
Decommission Beach Sewer in Manette (OF-4 to EB-2)	500,000	4,336,800	1,127,027								
Force Main Corrosion Testing	200,000	208,000									
Machinary/Equipment - Utility Operations Manager	50,000	52,000	54,080	56,243	58,493	60,833	63,266				
Sewer Main Replacement and Rehab Program	340,000	260,000	270,400	281,216	292,465	304,163	316,330	328,983	342,142	355,828	370,061
Sewer Main Replacement with Pavement Reconstruction	210,000	312,000	324,480	337,459	350,958	364,996	379,596	394,780	410,571	426,994	444,073
Tracyton Beach Main Conversion	500,000	4,576,000									
Pump Station SCADA and Controls Upgrade	400,000	312,000	324,480	337,459	350,958	364,996	379,596	394,780	410,571	426,994	444,073
Nutrient General Permit Improvements Program	150,000	104,000	108,160	112,486	116,986	121,665					
Installation of Emergency Generator Program	100,000	104,000	108,160	112,486	116,986	121,665	126,532				
Pump Station Improvements Program	300,000	312,000	324,480	337,459	350,958	364,996	379,596	394,780	410,571	426,994	444,073
I&I Reduction Program		260,000	270,400	281,216	292,465	304,163	316,330	328,983	342,142	355,828	370,061
CIPP Rehabilitation Program	900,000	780,000	811,200	843,648	877,394	912,490	948,989	789,559	821,141	853,987	888,147
Collection System Capacity Improvements											592,098
Salinity Impact Study	45,330										
Wastewater Comp Plan	635,910										
Eastside Treatment Plant UV Replacement	500,000										
Non-Potable Pump Replacements	106,531										
West Side Treatment Plant Upgrade	730,644										
PSIC Sewer Design & Construction	25,000										
E11th Street and Perry Avenue Reconstruction	247,887										
Quincy Square on 4th Street	75,000										
6th Street Phase III	195,275										
Washington Avenue Roundabout	164,706										
View Ridge Elementary (Almira SRTS) Phase 1	19,970										
Naval Avenue Road Diet	50,000										
Total Escalated	**$ 7,246,253**	**$22,215,440**	**$17,286,131**	**$ 9,235,133**	**$ 7,136,137**	**$ 3,284,963**	**$ 5,567,404**	**$20,990,428**	**$25,968,598**	**$23,447,639**	**$35,706,453**

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8.5.3 Available Funding Assistance and Financing Resources

8.5.3.1 City Resources

Resources appropriate for funding capital needs include accumulated cash in the capital fund, rate revenues designated for capital spending purposes, developer contributions, and capital-related charges such as general facilities charges. The first two resources will be discussed in the **Fiscal Policies** section of the **Financial Forecast**. Capital-related charges are discussed below.

8.5.3.1.1 General Facilities Charges

A connection charge such as the City's general facilities charge (GFC) refers to a one-time charge imposed on new customers as a condition of connecting to the wastewater system. The purpose of the GFC is two-fold: 1) to promote equity between new and existing customers; and 2) to provide a source of revenue to fund capital projects necessary for meeting growth. This revenue can only be used to fund utility capital projects or to pay debt service incurred to finance those projects. In the absence of a connection charge, growth-related capital costs would be borne in large part by existing customers. In 2024, the City charged all new customers a GFC of $8,103 per meter capacity equivalent (MCE) and has adopted a charge of $8,411 for 2025. MCEs are defined by the American Water Works Association and represent the maximum safe operating flow capacity in gallons per minute, relative to the base meter size.

8.5.3.1.2 Local Facilities Charges

While a connection charge is the manner in which new customers pay their share of system investment costs, local facilities charge funding is used to pay the costs of local facilities that connect each property to the system's infrastructure. Local facilities funding is often overlooked in rate forecasting because it is funded upfront by either connecting customers and developers, or through an assessment to properties, but never from rates.

A number of mechanisms can be considered toward funding local facilities. One of the following scenarios typically occurs: (a) the utility charges a connection fee based on the cost of the local facilities (under the same authority as the facilities assessment fee); (b) a developer funds an extension of the system to its development and turns those facilities over to the utility (contributed capital); or (c) a local assessment is set up called a Utility Local Improvement District (ULID/LID) or a Local Utility District (LUD), which collects tax revenue from benefited properties.

A local facilities charge (LFC) is a variation of the connection charge. It is a city-imposed charge to recover the cost related to service extension to local properties. Often called a front-footage charge and imposed on the basis of footage of the main "fronting" a particular property, it is usually implemented as a reimbursement mechanism to a city for the cost of a local facility that directly serves a property. It is a form of a connection charge and thus can accumulate up to 10 years of interest. It typically applies in instances when no developer-installed facilities are needed through developer extension due to the prior existence of available mains already serving the developing property.

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The developer extension is a requirement that a developer install on-site and sometimes off-site improvements as a condition of extending service. These are in addition to the connection charge required and must be built to City standards. Part of the agreement between the City and the developer planning to extend service might include a latecomer agreement (also called reimbursement agreements), resulting in a latecomer charge to new connections for the developer extension.

Latecomer charges are a variation of developer extensions, whereby new customers connecting to a developer-installed improvement make a payment to the City based on their share of the developer's cost. The City passes this charge on to the developer who installed the facilities. As part of the developer extension process, this defines the allocation of costs and records latecomer obligations on the title of affected properties. No interest is allowed, and the reimbursement agreement cannot exceed 20 years in duration.

ULID/LID is another mechanism for funding infrastructure that assesses benefited properties based on the special benefit received by the construction of specific facilities. Most often used for local facilities, some ULIDs also recover related general facilities costs. Substantial legal and procedural requirements can make this a relatively expensive process, and there are mechanisms by which a ULID can be rejected.

8.5.3.2 Outside Resources

This section outlines various grant, loan, and bond opportunities available to the City through federal and state agencies to fund the CIP identified in the WWCP.

8.5.3.2.1 Grants and Low-Cost Loans

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, substantially reduced in scope and amount, or replaced by loan programs. Remaining grant programs are generally lightly funded and heavily subscribed. Nonetheless, the benefit of low-interest loans makes the effort of applying worthwhile.

The State of Washington's Department of Commerce maintains a document currently entitled "*Funding Programs for Drinking Water and Wastewater Projects; Updated 9-17-2024*", which contains details on government programs, eligibility requirements, and contact information, should the City wish to inquire about program offerings and eligibility requirements.

8.5.3.2.2 Bond Financing

General Obligation Bonds – General obligation (G.O.) bonds are bonds secured by the full faith and credit of the issuing agency, committing all available tax and revenue resources to debt repayment. With this high level of commitment, G.O. bonds have relatively low interest rates and few financial restrictions. However, the authority to issue G.O. bonds is restricted in terms of the amount and use of the funds, as defined by the Washington constitution and statute. Specifically, the amount of debt that can be issued is linked to assessed valuation.

The Revised Code of Washington (RCW) 39.36.020 states:

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(2)(a)(ii) Counties, cities, and towns are limited to an indebtedness amount not exceeding one- and one-half percent of the value of the taxable property in such counties, cities, or towns without the assent of three-fifths of the voters therein voting at an election held for that purpose.

(b) In cases requiring such assent counties, cities, towns, and public hospital districts are limited to a total indebtedness of two and one-half percent of the value of the taxable property therein.

While bonding capacity can limit the availability of G.O. bonds for utility purposes, these can sometimes play a valuable role in project financing. A utility rate savings may be realized through two avenues: the lower interest rate and related bond costs, and the extension of repayment obligation to all tax-paying properties (not just developed properties) through the authorization of an ad valorem property tax levy.

Revenue Bonds – Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility. With this limited commitment, revenue bonds typically bear higher interest rates than G.O. bonds and require security conditions related to the maintenance of dedicated reserves (a bond reserve) and financial performance (added bond debt service coverage). The City agrees to satisfy these requirements by resolution as a condition of bond sale.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of the utility's ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing revenue bonds problematic.

8.5.3.2.3 Capital Financing Strategy

An ideal capital financing strategy would include the use of grants and low-cost loans when debt issuance is required. However, these resources are very limited and competitive in nature and do not provide a reliable source of funding for planning purposes. It is recommended that the City pursue these funding avenues but assume revenue bond financing to meet the needs which can't be met by available cash resources. The capital financing strategy developed to fund the CIP identified in this WWCP assumes the following funding resources:

- Accumulated cash reserves,
- Transfers of excess cash (over minimum balance targets) from the Operating Fund,
- General facilities charge revenue,
- Interest earned on Capital Fund balances,
- Contributions in aid of construction such as grants and / or developer donations,
- Low interest loan financing, and
- Revenue bond financing.

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The cash resources described above are anticipated to fund 52.1 percent of the budget year and 10-year CIP and 57.4 percent of the budget year and 20-year CIP. The remaining funding is assumed to be from new debt obligations of $85.3M in the budget year and next 10-year planning period and an additional $97.5M between 2035-2043. Table 8-5 presents the budget year and 10-year and 20-year capital financing strategy.

Table 8-5: Budget Year and 10-Year and 20-Year Capital Financing Strategy

Year	Capital (Escalated)	GFC Revenue	Low Interest Loans	CIAC	Revenue Bonds	Cash / Reserves	Total Financing
2024	$ 7,246,253	$ 1,056,859	$ 1,844,305			$ 4,345,089	$ 7,246,253
2025	22,215,440	1,208,518	9,986,620	7,804,000		3,216,302	22,215,440
2026	17,286,131	1,272,731	7,934,593	1,424,480		6,654,327	17,286,131
2027	9,235,133	1,340,355	3,504,000	3,487,078		903,700	9,235,133
2028	7,136,137	546,420	4,250,000	2,339,717			7,136,137
2029	3,284,963	534,963	2,750,000				3,284,963
2030	5,567,404	3,382,325				2,185,079	5,567,404
2031	20,990,428	1,648,744		8,553,557	10,000,000	788,127	20,990,428
2032	25,968,598	1,736,347		13,685,691		10,546,560	25,968,598
2033	23,447,639	1,828,605		4,981,591	16,637,442		23,447,639
2034	35,706,453	1,925,765			28,362,558	5,418,130	35,706,453
Total	**$178,084,578**	**$ 16,481,634**	**$ 30,269,518**	**$ 42,276,114**	**$ 55,000,000**	**$ 34,057,312**	**$178,084,578**
2035-2044	251,171,346	26,163,226		114,690,325	97,500,000	12,817,795	251,171,346
Total	**$429,255,925**	**$ 42,644,861**	**$ 30,269,518**	**$156,966,439**	**$152,500,000**	**$ 46,875,107**	**$429,255,925**

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8.5.4 Financial Forecast

The financial forecast, or revenue requirement analysis, forecasts the amount of annual revenue that needs to be generated by user rates. The analysis incorporates operating revenues, O&M expenses, debt service payments, rate-funded capital needs, and any other identified revenues or expenses related to operations. The objective of the financial forecast is to evaluate the sufficiency of the current level of rates. In addition to annual operating costs, the revenue needs also include debt covenant requirements and specific fiscal policies and financial goals of the City.

For this analysis, two revenue sufficiency tests have been developed to reflect the financial goals and constraints of the City: cash needs must be met; and debt coverage requirements must be realized. In order to operate successfully with respect to these goals, both tests of revenue sufficiency must be met.

Cash Test – The cash flow test identifies all known cash requirements for the City in each year of the planning period. Typically, these include O&M expenses, debt service payments, rate-funded system reinvestment funding or directly funded capital outlays, and any additions to specified reserve balances. The total annual cash needs of the City are then compared to projected cash revenues using the current rate structure. Any projected revenue shortfalls are identified, and the rate increases necessary to make up the shortfalls are established.

Coverage Test – The coverage test is based on a commitment made by the City when issuing revenue bonds and some other forms of long-term debt. For the purposes of this analysis,

revenue bond debt is assumed for any needed debt issuance starting in 2030, outside of the City's internally planned low interest loan assumptions for 2024 through 2029. As a security condition of issuance, the City would be required per covenant to agree that the revenue bond debt would have a higher priority for payment (a senior lien) compared to most other expenditures; the only outlays with a higher lien are O&M expenses. Debt service coverage is expressed as a multiplier of the annual revenue bond debt service payment. For example, a 1.00 coverage factor would imply that no additional cushion is required. A 1.25 coverage factor means revenue must be sufficient to pay O&M expenses, annual revenue bond debt service payments, and an additional 25.0 percent of annual revenue bond debt service payments. The excess cash flow derived from the added coverage, if any, can be used for any purpose, including funding capital projects. Targeting a higher coverage factor can help the City achieve a better credit rating and provide lower interest rates for future debt issues.

8.5.4.1 Current Financial Structure

The City maintains a fund structure and implements financial policies that target management of a financially viable and fiscally responsible wastewater system.

8.5.4.1.1 Fiscal Policies

A summary of the key financial policies employed by the City, as well as those recommended and incorporated in the financial program, are discussed below.

Operating Reserve – Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to deal with significant cash balance fluctuations, such as seasonal fluctuations in billings and receipts, unanticipated cash expenses, or lower than expected revenue collections. Like other types of reserves, operating reserves also serve another purpose: they help smooth rate increases over time. Target funding levels for an operating reserve are generally expressed as a certain number of days of O&M expenses, with the minimum requirement varying with the expected revenue volatility. Industry practice for utility operating reserves ranges from 30 days (8.0 percent) to 120 days (33.0 percent) of O&M expenses, with the lower end more appropriate for utilities with stable revenue streams and the higher end more appropriate for utilities with significant seasonal or consumption-based fluctuations. The City's current goal is to maintain a minimum balance in the Operating Fund equal to 12 percent of O&M expenses (approximately 44 days).

Capital Reserve – A capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve also could be used for other unanticipated capital needs, including capital project cost overruns. Industry practices range from maintaining a balance equal to 1.0 to 2.0 percent of fixed assets, an amount equal to a 5-year rolling average of CIP costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry practices with the risk level of the City.

The City does not have a formal policy for a Capital Reserve target. Referencing industry practices in conjunction with historic City practice, this analysis utilized a target of 2.0 percent of fixed assets.

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System Reinvestment – System reinvestment funding promotes system integrity through ongoing repair and replacement of system infrastructure. Ideally, a detailed asset management plan would guide the level of rate funded system reinvestment, however, in absence of this level of effort, annual depreciation expense is commonly used as a measure of the decline in asset value associated with routine use of the system. Particularly for utilities that do not already have an explicit system reinvestment policy in place, implementing a funding level based on full depreciation expense could significantly impact rates. An alternative benchmark is annual depreciation expense net of debt principal payments on outstanding debt. This approach recognizes that customers are still paying for certain assets through the debt component of their rate and intends to avoid simultaneously charging customers for an asset and its future replacement. The specific benchmark used to set system reinvestment funding targets is a matter of policy that must balance various objectives, including managing rate impacts, keeping long-term costs down, and promoting "generational equity" (i.e., not excessively burdening current customers with paying for facilities that will serve a larger group of customers in the future).

The City does not currently have a policy in place for system reinvestment funding. No dedicated system reinvestment funding is assumed in this financial plan; however, current practice is to transfer cash above the minimum operating target balance to the capital fund as cash-funded capital. On average, the study assumed an annual transfer of approximately $2.7 million per year within the budget and 10-year planning period.

Debt Management – It is prudent to consider policies related to debt management as part of a broader utility financial policy structure. Debt management policies should be evaluated and formalized, including the level of acceptable outstanding debt, debt repayment, bond coverage, and total debt coverage targets. The City has two outstanding wastewater revenue bonds, four Public Works Trust fund loans, and fifteen other low interest loans. The City's existing bond covenants require a 1.25 debt coverage target.

Because the City intends to continue using revenue bonds as a significant source of capital funding, the City's policy and this financial plan targets coverage at a minimum of 1.50. Targeting a higher than required coverage factor helps the City maintain its credit rating and may provide lower interest.

8.5.4.1.2 Financial Forecast

The financial forecast is primarily based upon the City's budgets for 2024, 2025 and 2026 and takes into consideration other key factors and assumptions needed to develop a complete portrait of the City's annual wastewater utility financial obligations. The following is a list of the key revenue and expense factors and assumptions used to develop the financial forecast.

- **Growth –** Rate revenue is escalated utilizing a 1.3 percent average annual growth rate developed based on the forecasted sewer flow projections identified in this WWCP.

- **Revenue –** The City has two general revenue sources: 1) wastewater service charges (rate revenue); and 2) miscellaneous (non-rate) revenue. In the event of a forecasted annual shortfall, rate revenue can be increased to meet the annual revenue requirement. For the purpose of this financial forecast, rate revenues are tied to budget for 2024

through 2026 and are forecasted to increase with growth starting in 2027. Non-rate revenues are forecast to increase with general cost inflation or growth with the exception of interest earnings which are calculated based on projected balances and assumed investment rates.

- **General Facilities Charges Revenue –** based on existing City practice, the general facilities charges are escalated annually by an accredited construction cost inflation index. The analysis assumes the 2025 adopted charges of $8,411 per meter capacity equivalent are increased by 4.0 percent per year and are applied to the projected new meter capacity equivalent connections to forecast the future revenue. General facilities charge revenues are forecast to generate an average of $1.5 million annually from 2024 through 2034. This equates to an average of 150 new meter capacity equivalents per year. General facilities charge revenue is directed towards annual capital needs.

- **Expenses –** O&M expense projections are based on the City's budgets through 2026 with general cost inflation increases of 3.5 percent, labor cost inflation of 3.0 percent and benefit cost inflation increases of 10.0 percent per year thereafter.

- **Taxes –** Budget figures were used for taxes in 2024 through 2026. Future taxes are calculated based on forecasted revenues and prevailing tax rates. Taxes are assessed utilizing a 3.85 percent state excise tax rate applicable to the collection share of rate revenue, approximately 17.0 percent, and 1.75 percent business and occupation tax rate applicable to the treatment and transmission share of rate revenue, approximately 87.0 percent, non-rate revenues and general facilities charges revenues. In addition, the City assesses a utility tax on the wastewater rate and non-rate revenues of 20.0 percent.

- **Existing Debt –** The wastewater utility has twenty-one (21) outstanding debt issues: two (2) revenue bonds, four (4) Public Works Trust Fund (PWTF) loans and fifteen (15) other low interest loans. Total annual existing debt service obligations begin 2024 at $1.7 million, decreasing to $1.0 million by 2034 as sixteen (16) of the twenty-one (21) loans are fully repaid.

- **Future Debt –** The capital financial strategy developed for this WWCP forecasts the need for $89.2M in new debt proceeds in eleven (11) separate instances throughout the budget year and 10-year forecast period. Based on discussion with the City, the analysis assumes nine (9) of the new debt issuances will utilize low interest loan financing, such as, the Clean Water State Revolving Fund (CWSRF) program, or equivalent. The remaining debt issuances will be through revenue bond financing. Annual debt service obligations are forecasted to begin in 2024 at $22,100, increasing to $6.7 million by 2034.

- **Transfers to Capital** - Operating fund balance above the minimum requirement is assumed to be available to fund capital projects and projected to be transferred to the Capital Fund each year, if needed. In total, the utility is forecast to fund $30.1 million in capital projects from excess operating fund cash within the budget year and 10-year forecast period.

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Although the financial plan is completed through 2044, the rate strategy focuses on the shorter-term planning period of 2024 through 2034. It is recommended that the City revisit the proposed rates every 3 to 4 years to ensure that the rate projections developed remain adequate. Any significant changes should be incorporated into the financial plan and future rates should be adjusted as needed.

Table 8-6, following, summarizes the annual revenue requirements based on the forecast of revenues, expenditures, fund balances, and fiscal policies.

Table 8-6: Budget Year and 10-Year Financial Forecast

Revenue Requirement	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Revenues											
Rate Revenues Under Existing Rates	$ 19,500,000	$ 19,000,000	$ 19,000,000	$ 19,239,935	$ 19,482,900	$ 19,728,933	$ 19,978,073	$ 20,230,359	$ 20,485,831	$ 20,744,529	$ 21,006,494
Non-Rate Revenues	487,459	388,000	360,000	288,236	274,433	260,760	246,563	211,211	225,284	230,663	276,136
Total Revenues	**$ 19,987,459**	**$ 19,388,000**	**$ 19,360,000**	**$ 19,528,171**	**$ 19,757,333**	**$ 19,989,693**	**$ 20,224,635**	**$ 20,441,570**	**$ 20,711,114**	**$ 20,975,192**	**$ 21,282,630**
Expenses											
Cash Operating Expenses	$ 15,217,323	$ 16,942,066	$ 16,978,380	$ 17,398,430	$ 17,990,693	$ 18,611,536	$ 19,262,870	$ 19,946,420	$ 20,665,683	$ 21,422,096	$ 22,219,181
Existing Debt Service	1,717,104	1,523,536	1,496,160	1,429,100	1,181,270	1,143,160	1,100,145	1,021,397	1,024,153	1,017,858	1,019,010
New Debt Service	22,132	446,599	846,787	1,301,607	1,527,178	1,771,800	1,901,790	2,772,202	2,755,718	6,730,267	6,713,783
Total Expenses	**$ 16,956,558**	**$ 18,912,201**	**$ 19,321,328**	**$ 20,129,137**	**$ 20,699,141**	**$ 21,526,496**	**$ 22,264,805**	**$ 23,740,019**	**$ 24,445,553**	**$ 29,170,220**	**$ 29,951,975**
Net Surplus (Deficiency)	**$ 3,030,901**	**$ 475,799**	**$ 38,672**	**$ (600,966)**	**$ (941,808)**	**$ (1,536,803)**	**$ (2,040,170)**	**$ (3,298,449)**	**$ (3,734,439)**	**$ (8,195,028)**	**$ (8,669,345)**
Annual Rate Adjustment	**0.00%**	**3.50%**	**3.50%**	**3.50%**	**3.50%**	**3.50%**	**8.40%**	**8.40%**	**8.40%**	**8.40%**	**8.40%**
Cumulative Annual Rate Adjustment	**0.00%**	**3.50%**	**7.12%**	**10.87%**	**14.75%**	**18.77%**	**28.75%**	**39.56%**	**51.28%**	**63.99%**	**77.77%**
Rate Revenues After Rate Increase	$ 19,500,000	$ 19,665,000	$ 20,353,275	$ 21,331,660	$ 22,357,075	$ 23,431,783	$ 25,720,809	$ 28,233,446	$ 30,991,541	$ 34,019,071	$ 37,342,357
Additional Taxes from Rate Increase	-	147,012	299,169	462,418	635,394	818,589	1,269,547	1,769,243	2,322,497	2,934,603	3,611,369
Net Cash Flow After Rate Increase	**$ 3,030,901**	**$ 993,787**	**$ 1,092,779**	**$ 1,028,341**	**$ 1,296,974**	**$ 1,347,458**	**$ 2,433,020**	**$ 2,935,396**	**$ 4,448,774**	**$ 2,144,911**	**$ 4,055,149**
Coverage After Rate Increases	17.21	14.56	15.74	15.87	16.35	17.05	19.37	8.56	9.67	2.93	3.36

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The financial forecast indicates that at existing rate levels the utility will become deficient in 2027 by $601,000 as growth in expenses outpaces growth in revenues and new debt is issues to meet capital needs. The deficiency is projected to increase up to $8.7 million by 2034 as the utility begins to incur additional new debt to help fund the capital improvement plan contained in this WWCP and keep up with inflationary pressures from operating and maintenance expenses. The City has adopted a 3.50 percent rate increase for 2025 and is anticipating additional 3.50 percent annual rate increases through 2029. In order to address the remaining projected deficiencies, an annual increase of 8.4 percent is projected from 2030 through 2034. The higher increases starting in 2030 may be conservative utilizing revenue bond financing, assuming no low interest loans will be available. Historically, the City has been successful in acquiring a combination of grants and low interest loans and should revisit the rate strategy as better information becomes available.

8.5.4.1.1 City Funds and Reserves

Table 8-7 shows a summary of the projected Operating Fund and Capital Fund ending balances through 2034 based on the rate forecasts presented above. The Operating Fund is maintained at a minimum of 12 percent, or 44 days, of O&M expenses, and the Capital Fund balance

continues to meet or exceed the minimum targeted of 2.00 percent of fixed assets in every year of the forecast.

Table 8-7: Ending Cash Balance Summary

Ending Fund Balances	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Operating Fund	$ 1,834,417	$ 2,042,331	$ 2,046,709	$ 2,097,345	$ 2,168,741	$ 2,243,582	$ 2,322,099	$ 2,404,500	$ 2,491,206	$ 2,582,390	$ 2,678,477
Capital Fund	13,429,165	11,299,237	6,185,780	6,476,788	8,762,322	11,206,108	9,783,390	11,946,593	5,882,067	36,357,673	6,900,124
Total	**$15,263,582**	**$13,341,568**	**$ 8,232,489**	**$ 8,574,133**	**$10,931,063**	**$13,449,691**	**$12,105,490**	**$14,351,093**	**$ 8,373,273**	**$38,940,063**	**$ 9,578,601**
Combined Target	*$ 5,115,454*	*$ 5,767,677*	*$ 6,117,778*	*$ 6,353,116*	*$ 6,567,235*	*$ 6,707,776*	*$ 6,897,641*	*$ 7,399,850*	*$ 8,005,928*	*$ 8,566,064*	*$ 9,376,280*

8.5.5 Current and Projected Rates

8.5.5.1 Current Rates

The existing wastewater rates consist of a monthly fixed rate and a commodity charge per hundred cubic feet (HCF). Fixed charges vary by class of service and apply on a per account basis, with the exception of duplex and multi-family accounts, where the charges apply on a per unit basis. Commodity charges also vary by class of service, increasing with the assumed concentration of influent for commercial classes of service. A low-income senior and low-income disabled citizen discount of 40.0 percent is available. Customers located outside the City limits pay a rate that is 1.50 times the in-City rate based on class of service.

Table 8-8 provides the existing wastewater rate schedule.

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Table 8-8: Existing Schedule of Rates

Description	2024 Inside City
Single Family	
Base Charge (per acc.)	$ 39.98
Commodity Charge (per HCF)	5.37
Duplex on 1 Meter or 2 Bldgs. On 1 Meter	
Base Charge (per unit)	$ 31.66
Commodity Charge (per HCF)	5.37
Mulit-Family	
Base Charge (per unit)	$ 31.66
Commodity Charge (per HCF)	5.37
Low-Income Senior and Low Income Disabled Citizen	
Base Charge (per acc.)	$ 23.99
Commodity Charge (per HCF)	3.22
Commercial I	
Base Charge (per acc.)	$ 59.10
Commodity Charge (per HCF)	5.53
Commercial II	
Base Charge (per acc.)	$ 59.53
Commodity Charge (per HCF)	7.08
Commercial III	
Base Charge (per acc.)	$ 60.12
Commodity Charge (per HCF)	8.64
Commercial IV	
Base Charge (per acc.)	$ 60.71
Commodity Charge (per HCF)	10.22
Commercial V	
Base Charge (per acc.)	$ 66.78
Commodity Charge (per HCF)	12.77
Commercial VI	
Base Charge (per acc.)	$ 73.45
Commodity Charge (per HCF)	15.95
Commercial VII	
Base Charge (per acc.)	$ 80.80
Commodity Charge (per HCF)	18.63
Commercial Special	
Base Charge (per acc.)	$ 88.88
Commodity Charge (per HCF)	24.93
Beverage Production	
Base Charge (per acc.)	$ 60.12
Commodity Charge (per HCF)	5.62
Commercial Fountains - Separately Metered	
Base Charge (per acc.)	$ 59.10
Commodity Charge (per HCF)	1.82
Septage Disposal	
Per gallon of tank capacity	$ 0.30
Individual Residential Grinder Pumps	
Standard	$ 12.89
Low-Income Senior and Low Income Disabled Citizen	7.73

***Note**: a 1.50 multiplier applies to customers Outside City limits.*

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8.5.5.2 Projected Rates

The financial forecast discussed above indicates the need for annual rate adjustments in order to satisfy all forecasted financial obligations. The City has adopted a 3.50 percent rate increase for 2025 and is anticipating additional 3.50 percent annual increases through 2029. Additional increases of 8.4 percent annually are forecasted from 2030 through 2034. Table 8-9 shows the projected rates with increases applied uniformly to the wastewater fixed and commodity components of all classes, where applicable.

Table 8-9: Proposed Schedule of Rates

Description	Inside City									
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Single Family										
Base Charge (per acc.)	$ 41.38	$ 42.83	$ 44.33	$ 45.88	$ 47.49	$ 51.48	$ 55.80	$ 60.49	$ 65.57	$ 71.08
Commodity Charge (per HCF)	5.56	5.75	5.95	6.16	6.38	6.92	7.50	8.13	8.81	9.55
Duplex on 1 Meter or 2 Bldgs. On 1 Meter										
Base Charge (per unit)	$ 32.77	$ 33.92	$ 35.11	$ 36.34	$ 37.61	$ 40.77	$ 44.19	$ 47.90	$ 51.92	$ 56.28
Commodity Charge (per HCF)	5.56	5.75	5.95	6.16	6.38	6.92	7.50	8.13	8.81	9.55
Mulit-Family										
Base Charge (per unit)	$ 32.77	$ 33.92	$ 35.11	$ 36.34	$ 37.61	$ 40.77	$ 44.19	$ 47.90	$ 51.92	$ 56.28
Commodity Charge (per HCF)	5.56	5.75	5.95	6.16	6.38	6.92	7.50	8.13	8.81	9.55
Low-Income Senior and Low Income Disabled Citizen										
Base Charge (per acc.)	$ 24.83	$ 25.70	$ 26.60	$ 27.53	$ 28.49	$ 30.88	$ 33.47	$ 36.28	$ 39.33	$ 42.63
Commodity Charge (per HCF)	3.34	3.46	3.58	3.71	3.84	4.16	4.51	4.89	5.30	5.75
Commercial I										
Base Charge (per acc.)	$ 61.17	$ 63.31	$ 65.53	$ 67.82	$ 70.19	$ 76.09	$ 82.48	$ 89.41	$ 96.92	$ 105.06
Commodity Charge (per HCF)	5.72	5.92	6.13	6.34	6.56	7.11	7.71	8.36	9.06	9.82
Commercial II										
Base Charge (per acc.)	$ 61.61	$ 63.77	$ 66.00	$ 68.31	$ 70.70	$ 76.64	$ 83.08	$ 90.06	$ 97.63	$ 105.83
Commodity Charge (per HCF)	7.33	7.59	7.86	8.14	8.42	9.13	9.90	10.73	11.63	12.61
Commercial III										
Base Charge (per acc.)	$ 62.22	$ 64.40	$ 66.65	$ 68.98	$ 71.39	$ 77.39	$ 83.89	$ 90.94	$ 98.58	$ 106.86
Commodity Charge (per HCF)	8.97	9.28	9.60	9.94	10.29	11.15	12.09	13.11	14.21	15.40
Commercial IV										
Base Charge (per acc.)	$ 62.83	$ 65.03	$ 67.31	$ 69.67	$ 72.11	$ 78.17	$ 84.74	$ 91.86	$ 99.58	$ 107.94
Commodity Charge (per HCF)	10.58	10.95	11.33	11.73	12.14	13.16	14.27	15.47	16.77	18.18
Commercial V										
Base Charge (per acc.)	$ 69.12	$ 71.54	$ 74.04	$ 76.63	$ 79.31	$ 85.97	$ 93.19	$ 101.02	$ 109.51	$ 118.71
Commodity Charge (per HCF)	13.22	13.68	14.16	14.66	15.17	16.44	17.82	19.32	20.94	22.70
Commercial VI										
Base Charge (per acc.)	$ 76.02	$ 78.68	$ 81.43	$ 84.28	$ 87.23	$ 94.56	$ 102.50	$ 111.11	$ 120.44	$ 130.56
Commodity Charge (per HCF)	16.51	17.09	17.69	18.31	18.95	20.54	22.27	24.14	26.17	28.37
Commercial VII										
Base Charge (per acc.)	$ 83.63	$ 86.56	$ 89.59	$ 92.73	$ 95.98	$ 104.04	$ 112.78	$ 122.25	$ 132.52	$ 143.65
Commodity Charge (per HCF)	19.28	19.95	20.65	21.37	22.12	23.98	25.99	28.17	30.54	33.11
Commercial Special										
Base Charge (per acc.)	$ 91.99	$ 95.21	$ 98.54	$ 101.99	$ 105.56	$ 114.43	$ 124.04	$ 134.46	$ 145.75	$ 157.99
Commodity Charge (per HCF)	25.80	26.70	27.63	28.60	29.60	32.09	34.79	37.71	40.88	44.31
Beverage Production										
Base Charge (per acc.)	$ 62.22	$ 64.40	$ 66.65	$ 68.98	$ 71.39	$ 77.39	$ 83.89	$ 90.94	$ 98.58	$ 106.86
Commodity Charge (per HCF)	5.82	6.02	6.23	6.45	6.68	7.24	7.85	8.51	9.22	9.99
Commercial Fountains - Separately Metered										
Base Charge (per acc.)	$ 61.17	$ 63.31	$ 65.53	$ 67.82	$ 70.19	$ 76.09	$ 82.48	$ 89.41	$ 96.92	$ 105.06
Commodity Charge (per HCF)	1.88	1.95	2.02	2.09	2.16	2.34	2.54	2.75	2.98	3.23
Septage Disposal										
Per gallon of tank capacity	$ 0.31	$ 0.32	$ 0.33	$ 0.34	$ 0.35	$ 0.38	$ 0.41	$ 0.44	$ 0.48	$ 0.52
Individual Residential Grinder Pumps										
Standard	$ 13.34	$ 13.81	$ 14.29	$ 14.79	$ 15.31	$ 16.60	$ 17.99	$ 19.50	$ 21.14	$ 22.92
Low-Income Senior and Low Income Disabled Citizen	8.00	8.28	8.57	8.87	9.18	9.95	10.79	11.70	12.68	13.75

Note : a 1.50 multiplier applies to customers Outside City limits.

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8.5.6 Affordability

A common affordability metric used by the Environmental Protection Agency (EPA) to measure the relative financial impact wastewater rates have on a community as a whole considers whether rates exceed 2.50 percent of a community's median household income. The average median household income for the City was $74,399 between 2013 and 2023, expressed in 2023 dollars, according to the U.S. Census Bureau. The 2023 value is escalated based on the actual rate of inflation in 2024 (January through November month to month average based on data available) of 2.96 percent and the 3.50 percent inflation rate used in the financial forecast to project the median household income in future years. Table 8-10 presents the City's monthly wastewater bill projected to 2034 and tested against the 2.50 percent monthly affordability threshold.

Table 8-10: Community Affordability Test

Year	Inflation	Median HH Income	2.5% Monthly Threshold	Projected Monthly Bill	% of Median HH Income
2023		$ 74,399			
2024	2.96%	76,599	159.58	$ 72.20	1.13%
2025	3.50%	79,280	165.17	74.74	1.13%
2026	3.50%	82,055	170.95	77.33	1.13%
2027	3.50%	84,927	176.93	80.03	1.13%
2028	3.50%	87,900	183.12	82.84	1.13%
2029	3.50%	90,976	189.53	85.77	1.13%
2030	3.50%	94,160	196.17	93.00	1.19%
2031	3.50%	97,456	203.03	100.80	1.24%
2032	3.50%	100,867	210.14	109.27	1.30%
2033	3.50%	104,397	217.49	118.43	1.36%
2034	3.50%	108,051	225.11	128.38	1.43%

Applying the 2.50 percent monthly affordability test, the City's rates are forecasted to remain within the indicated affordability range through 2034.

8.5.7 Conclusion

The results of this analysis indicate that at existing rate levels the utility will be deficient beginning in 2027. The City has adopted a 3.50 percent rate increase for 2025 and is anticipating additional 3.50 percent annual rate increases through 2029. In order to address the remaining projected deficiencies, an annual increase of 8.4 percent is projected from 2030 through 2034. The higher increases starting in 2030 may be conservative utilizing revenue bond financing, assuming no low interest loans will be available. Historically, the City has been successful in acquiring a combination of grants and low interest loans and should revisit the rate strategy as better information becomes available. It is recommended that the City regularly review and update the key underlying assumptions that compose the multi-year financial plan to ensure that adequate revenues are collected to meet the City's total financial obligations.

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