



Capital Improvement Plan

FISCAL YEARS 2027 - 2032



A Welcome Message

FROM OLWS' PUBLIC WORKS DIRECTOR/DISTRICT ENGINEER

On behalf of Oak Lodge Water Services (OLWS), I am pleased to present our Fiscal Year 2027 – 2032 Capital Improvement Plan (CIP). OLWS' CIP is a foundational tool that enables us to provide customers with continued reliable and resilient services today and for generations. This document is a blueprint that ranks necessary capital improvement projects based on the most critical needs and then aligns those needs with available funding so we can effectively and efficiently meet our goals in the most fiscally responsible way. Finding a balance between exemplary customer service, compliance with shifting environmental policies, and rising costs is key to the continued success of public organizations like ours. As your Drinking Water, Wastewater, and Watershed Protection services provider, OLWS' leadership depends on our CIP to achieve this balance.

We hope this document gives you a better understanding of how your monetary investment is used to promote a healthy and vibrant community.

If you have any questions about this document, I encourage you to contact me at (503) 353-4212.

Sincerely,

Aaron Janicke

Aaron Janicke, PE

OAK LODGE WATER SERVICES

PUBLIC WORKS DIRECTOR/DISTRICT ENGINEER

“A CIP provides OLWS leadership with the information required to make strategic, sound decisions about infrastructure improvements that are backed by data.”

- Aaron Janicke, PE

Introduction

As a resource manager, OLWS is committed to sustaining and enhancing reliable water, wastewater, and watershed protection services while maintaining affordable rates for our customers. To realize this, planning ahead is vital. A CIP is a critical tool that assists leaders in making good short- and long-term planning decisions that sustain and improve our community's infrastructure. It is updated annually to reflect changing community needs, priorities, and funding opportunities.

OLWS CORE COMMITMENTS

- » *Protect Public Health*
- » *Provide Excellent Customer Service*
- » *Make Smart Investments and Work to Keep Rates Affordable*
- » *Keep Local Streams and Rivers Clean*



Overview

This CIP lays out the financing, location, and timing of specific capital improvements projects over six years. Through the CIP development process, projects are ranked based on critical need and then aligned with available funding. This allows OLWS to make fiscally responsible decisions that are backed by data. The list of projects included in this CIP are informed by the needs identified in OLWS’s Wastewater and Water Master Plans and Stormwater Management Plan.

Infrastructure refers to the structures, systems, and facilities that provide critical services to the community.

THE OLWS SYSTEMS

OLWS has two defined infrastructure systems—water and wastewater services—and additional water quality responsibilities:

Drinking Water

Safe, high-quality drinking water and a resilient system of delivery to every customer.

Wastewater

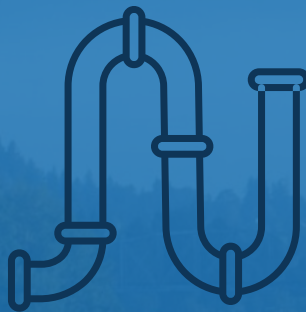
Protecting public health by collecting, treating, and cleaning approximately 1.5 billion gallons of wastewater a year.

Watershed Protection

Protecting local streams through managing the water quality of stormwater runoff from paved areas.

208

MILES OF WATER AND
WASTEWATER PIPES



773

FIRE HYDRANTS



5

LIFT STATIONS



1.5 billion

GALLONS OF WASTEWATER
TREATED ANNUALLY



4

BOOSTER PUMP
STATIONS



2

WATER RESERVOIR
SITES

The Process of a CIP Project

PRIORITIZING AND BUDGETING

Rate payer involvement is the cornerstone of this six-year CIP. Projects are verified through a multi-step process (see below) that includes public comment at several stages to ensure that projects meet the community's needs, in addition to expert analyses during plan development. Funding is not available for projects to begin until it is adopted into OLWS's budget.

PROJECT START

A project is first considered as part of the Master Planning process. Staff, with the assistance of expert consultants and Citizen Advisory Group members, draft Master Plans for community consideration.

Master Plans are subject to community meetings where citizens are invited to review the scope of the plan and the corresponding capital projects required to fulfill it.

The OLWS Board then reviews the Master Plan and adopts it. Once adopted, the Master Plan becomes the guiding document for that utility's function and the associated project list is required to fulfill the Master Plan.

As projects are pursued, plan review and other land use steps may bring the project before the Board for their additional review and approval. Citizen comment is vital to this process.

Some projects, such as those funded with general obligation bonds, require a public vote. All projects will appear in the Board agenda for contract review and approval.

As projects commence, public outreach efforts focus on impacted neighbors to ensure that project work has a minimal impact on services and the community.

PROJECT COMPLETION



Where Funding Comes From

Funding that contributes to this CIP comes from various sources. Funding sources for the CIP include:

UTILITY FUNDS

Supported by the rates paid monthly by customers. This operates much like a separate small business.

- The monies charged to customers can only be used for the specific service that is provided.
- Utility funds are the primary funding source for CIP projects.

FEES FROM DEVELOPERS (SYSTEM DEVELOPMENT CHARGES OR SDCS)

- New development within OLWS pays for its share into existing systems.
- Fees can pay for community amenities, but they cannot be used for OLWS' daily operating expenses.
- Funding from SDCs is highly variable based on current rates of development in our service area.

GRANTS

- OLWS leverages grants to ensure it can build and maintain assets in an economically efficient way that eases the burden on customers' rates.
- Individual grant programs specify the requirements for use of the funds.
- Grants come from outside agencies such as ODOT, Metro, DEQ, Oregon Parks, and others.

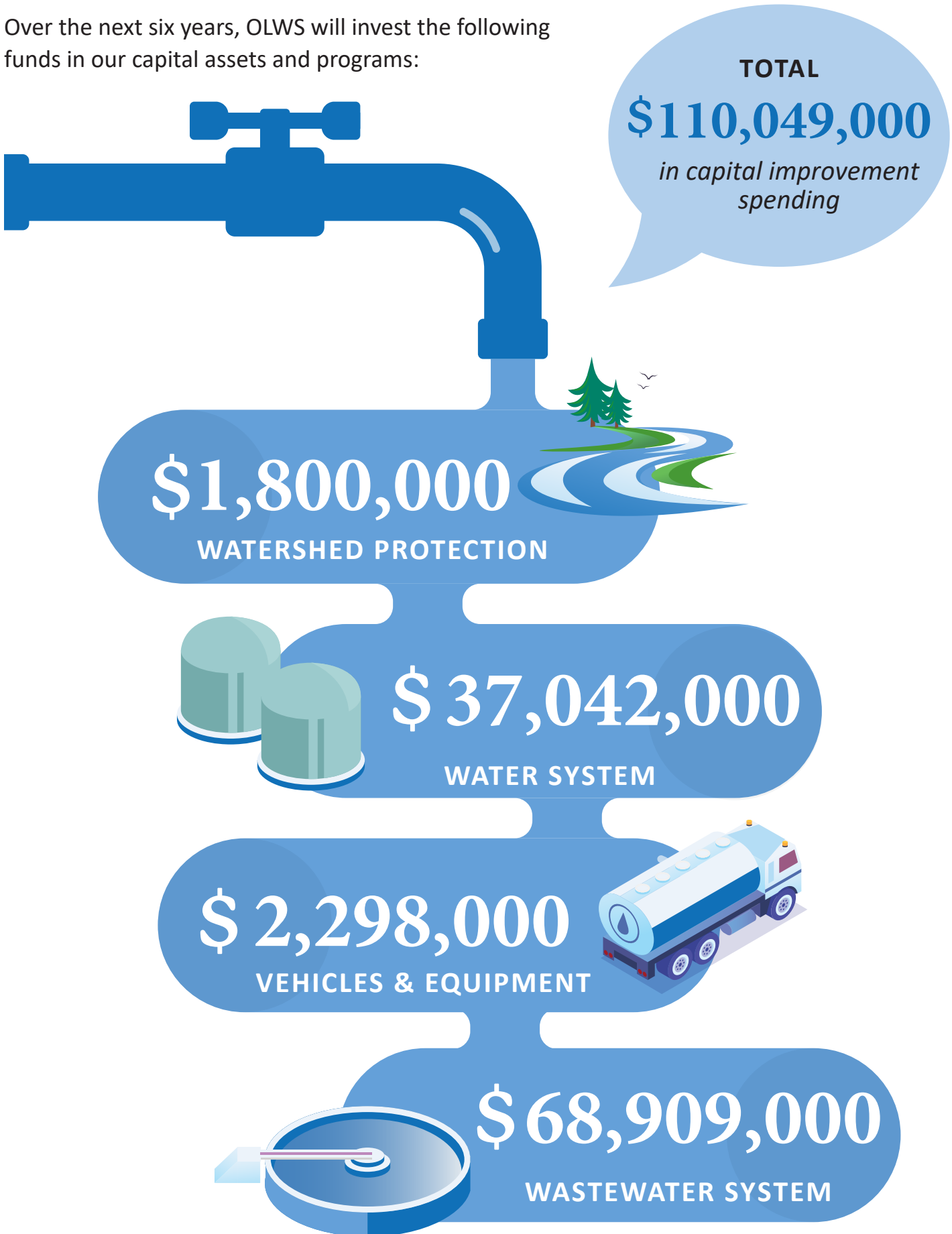
BONDS

- These are issued by states and local governments to raise funds for public works and infrastructure improvements.
- Bonds are a common way to finance long-term public capital improvement projects statewide.



How We Utilize Our Investments

Over the next six years, OLWS will invest the following funds in our capital assets and programs:



How to Use This Document

In this document we have included detailed descriptions about projects that are organized by fund. Each fund section begins with a summary overview of the function of the fund followed by funding and project information. Summary tables and graphs highlight the capital projects within each fund. Following the summary section are detailed breakdowns of each project, along with project schedules, cost estimates, and operating budget impacts.





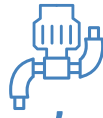
DRINKING WATER

OLWS provides safe and reliable drinking water services to approximately 29,000 residential and commercial customers. Raw water from the Clackamas River is drawn by the North Clackamas County Water Commission Water Treatment Plant, where it is treated, cleaned, and transformed into high-quality drinking water. OLWS operates and maintains a complex infrastructure responsible for storing and distributing drinking water to its customers.



1

WATER TREATMENT FACILITY



4

BOOSTER PUMP STATIONS



4

WATER STORAGE RESERVOIRS



108

MILES OF DISTRIBUTION PIPELINE FOR DRINKING WATER

Water Spotlight

22

Drinking Water Projects

\$37,042,000

Total Drinking Water Capital Investments over six years

Priorities:

- Replacing aging infrastructure
- Cross-agency intertie
- Required fire flow
- Seismic resiliency
- Service pressure





WASTEWATER

OLWS' wastewater system protects public health by collecting, treating, and cleaning approximately 1.5 billion gallons of wastewater a year. OLWS' Wastewater Treatment Plant operates 24 hours a day, seven days a week treating the community's wastewater before returning it to the Willamette River. The treatment plant is responsible for removing harmful pollutants in compliance with state and federal regulations. OLWS is in the process of upgrading and repairing several critical components of its wastewater system based on findings from the Wastewater Master Plan completed in 2023.



1

WASTEWATER
TREATMENT FACILITY



2166

MANHOLES



6

LIFT STATIONS



100

MILES OF COLLECTION
SYSTEM PIPELINES

Wastewater Spotlight

35

Wastewater Projects

\$68,909,000

Total Wastewater Capital
Investments over six years

Priorities:

- Prevention of sanitary sewer overflows
- Meeting new state discharge standards
- Building a new tertiary treatment facility on OLWS property

TAKE A TOUR OF THE
TREATMENT PLANT!





WATERSHED PROTECTION

Keeping our watersheds clean helps humans, animals, fish, and plants thrive. Runoff from storm water is the most significant source of water pollution in our state. OLWS' Surface Water Management Program strives to keep rivers clean and protect our local watershed from stormwater pollution. When rain washes over our streets, roofs, and lawns, pollutants such as trash, oil, bacteria, and pesticides wash into our waterways. OLWS cleans county-owned stormwater infrastructure within our boundary area, monitors water quality, and implements programs to reduce stormwater pollution.



3,000

CATCH BASINS



36

ACRES OF WETLANDS



197

STORMWATER AGREEMENTS



8

CREEKS

Watershed Protection Spotlight

2

Watershed Protection Projects

\$1,800,000

Total Watershed Protection Capital Investments over six years

Priorities:

- New regional stormwater treatment facilities
- Retrofits of existing facilities
- Natural resource restoration projects





FLEET

OLWS' vehicle fleet and heavy equipment are key to supporting its drinking water, wastewater, and watershed protection services. OLWS has 36 vehicles to support its services. Sixteen vehicles are primarily used for drinking water services, eighteen for wastewater services, one for stormwater, and one for technical services inspections. OLWS monitors its fleet and equipment assets (equipment could include a generator or biosolids loader) regularly to determine when each needs to be replaced, and the timing at which replacements should occur, to promote continued, reliable service to the community. Through proactive planning of the maintenance and replacements of these assets, the cost for major repairs are reduced in the long-term.



16

VEHICLES FOR
DRINKING WATER



18

VEHICLES FOR
WASTEWATER



1

VEHICLE FOR
STORMWATER



1

VEHICLE FOR TECHNICAL
SERVICE INSPECTIONS

Fleet Spotlight

12

Vehicles to support services

\$2,298,000

*Total Vehicle & Equipment
Investments over six years*

Priorities:

- Replacement of vehicles for operations



CAPITAL IMPROVEMENT PLAN - DRINKING WATER

Pr. No.	Project Name	FY27	FY28	FY29	FY30	FY31	FY32	Totals
C-2	Ranstad and Cinderella Courts					320,000		320,000
C-5	Oatfield Road	200,000	2,772,000	2,665,000	2,932,000			8,569,000
C-6	Round Oaks Court					219,000		219,000
C-7	Seal Coat Valley View Reservoir Domes	210,000						210,000
C-8	View Acres Recoat Tank Exterior and Interior		272,000					272,000
C-11	SCADA System Upgrades	50,000	50,000	50,000	50,000	50,000	50,000	300,000
C-12	Radio Telemetry Activation Study	26,000						26,000
C-13	Pressure Reducing Valve Rebuild (Every 5 years)				32,000			32,000
C-14	Large Meter Testing and Replacement	60,000	60,000	60,000	60,000	60,000	60,000	360,000
C-15	Vault Meter Bypass Installations	140,000						140,000
C-16	Hydrant Capital Repair and Replacement	100,000	100,000	100,000				300,000
E-2	Water System Master Plan - Update					213,000		213,000
F-2	River Rd, Torbank Rd, Maple St.		320,000	2,400,000	2,400,000			5,120,000
F-3	Vista Sunrise Court					219,000		219,000
F-4	Colina Vista, Clayson Avenues, Emerald Drive, Colony Circle	3,620,000						3,620,000
F-5	Alderway Avenue					576,000		576,000
F-6	View Acres Road					1,146,000		1,146,000
F-7	Glen Echo Avenue and Meldrum Avenue						746,000	746,000
F-8	Hull Avenue and Wilmont Street						1,920,000	1,920,000
F-9	McLoughlin Blvd., Maple St., Oak Grove Blvd., Risley Ave.					1,492,000	1,492,000	2,984,000
R-2	Milwaukie-OLWS Intertie Pump Station			111,000	4,605,000	4,775,000		9,491,000
W-3	Water Pump Station Generator at CRW		259,000					259,000
	TOTAL	4,406,000	3,833,000	5,386,000	10,079,000	9,070,000	4,268,000	37,042,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Pr. No.	Project Name	FY27	FY28	FY29	FY30	FY31	FY32	Totals
C-14	Lateral Repair Program	150,000	150,000	150,000	150,000	150,000	150,000	900,000
C-17	Manhole Repair Program	75,000	75,000	75,000	75,000	75,000	75,000	450,000
C-18	Mainline Repair Program	75,000	75,000	75,000	75,000	75,000	75,000	450,000
C-21	Lift Station 2 Generator	250,000						250,000
C-1	Lift Station 5 Basin RDII	175,000						175,000
C-2	Lift Station 2 Basin RDII	1,875,000	3,730,000	3,730,000				9,335,000
C-3	Lift Station 6 Basin RDII			32,000				32,000
C-4	Influent Lift Station Basin RDII	580,000	4,264,000		2,239,000	2,239,000		9,322,000
C-10	Trunk Main 2A Upsizing							-
C-5	Lift Station 4 Basin RDII					22,000	299,000	321,000
C-6	Lift Station 3 Basin RDII				1,141,000	2,665,000	2,665,000	6,471,000
C-8	Trunk Main A Upsizing				1,732,000	8,285,000		10,017,000
C-9	Trunk Main B Upsizing					1,599,000		1,599,000
C-11	Trunk Main C Upsizing					26,000	213,000	239,000
C-16	Lift Station 3 Rehabilitation	325,000	1,194,000	1,237,000				2,756,000
C-19	Lift Station 4 Rehabilitation					43,000	267,000	310,000
C-20	Lift Station 6 Rehabilitation					144,000	1,599,000	1,743,000
COLLECTIONS TOTAL		3,505,000	9,488,000	5,299,000	3,680,000	7,171,000	15,227,000	44,370,000
Pr. No.	Project Name	FY27	FY28	FY29	FY30	FY31	FY32	Totals
T-1	Aeration Instr. & Controls			48,000	373,000			421,000
T-2	Chemical Feed Systems			25,000	174,000			199,000
T-4	Aeration Basin Diffusers		25,000	186,000				211,000
T-5	Replace Mixers			168,000	1,434,000			1,602,000
T-6	Internal Mixed Liquor Recycle Piping			96,000	396,000	409,000		901,000
T-7	Replace 3 Internal Mixed Liquor Recycle Pumps			36,000	260,000			296,000
T-8	Foam Management/Wasting Facility		24,000	186,000				210,000
T-9	Secondary Clarifier 1 & 2 Refurbishment		2,302,000	2,388,000				4,690,000
T-11	Aeration Basin Baffle Walls			36,000	285,000			321,000
T-12	Tertiary Treatment at WWTP	11,000,000						11,000,000
T-14	UV Disinfection Rehabilitation		144,000	627,000	680,000			1,451,000
T-15	UV Disinfection Equipment	37,000	40,000	43,000	46,000	49,000	52,000	267,000
T-16	Influent Lift Stat. Reconstruct	130,000	608,000	650,000				1,388,000
T-19	Influent Screens Seals	90,000						90,000
T-24	GBT Refurbishment			298,000				298,000
T-25	TWAS Pump Replacement			90,000				90,000
T-29	Motor Control (VFD) Replacement and Upgrades	42,000	45,000	48,000	51,000	54,000	57,000	297,000
T-31	Backup Generator Switch Replacement		300,000					300,000
P-1	Wastewater Master Plan Update			320,000	187,000			507,000
WWTP SUBTOTAL		11,299,000	3,488,000	5,245,000	3,886,000	512,000	109,000	24,539,000
WASTEWATER TOTAL		14,804,000	12,976,000	10,544,000	7,566,000	7,683,000	15,336,000	68,909,000

CAPITAL IMPROVEMENT PLAN - WATERSHED PROTECTION

Pr. No.	Project Name	FY27	FY28	FY29	FY30	FY31	FY32	Totals
WP-3	Jennings Avenue Drainage Improvement	300,000						300,000
WP-2	Localized Enhancement Program		300,000	300,000	300,000	300,000	300,000	1,500,000
	TOTAL	300,000	300,000	300,000	300,000	300,000	300,000	1,800,000

CAPITAL IMPROVEMENT PLAN - FLEET

Vehicle No.	Vehicle/ Department	FY27	FY28	FY29	FY30	FY31	FY32	Total
17	Collections: Hydrocleaner		533,000					533,000
19	Collections: TV Van						426,000	426,000
23	WW Treatment Plant:			27,000				27,000
7	WW Treatment Plant: Plant				160,000			160,000
14	WW Treatment Plant: Dump					160,000		160,000
65	Water: Crane Truck	225,000						225,000
66	Water: Trackhoe			187,000				187,000
68	Water: Operations Truck			64,000				64,000
67	Water: Ditchwitch				43,000			43,000
43	Water: Backhoe				160,000			160,000
69	Water: Service Truck					213,000		213,000
	Water: Valve Turning Trailer	100,000						100,000
	TOTAL	325,000	533,000	278,000	363,000	373,000	426,000	2,298,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-2
Project Name: Ranstad and Cinderella Courts

Project Description

This project replaces 760 feet of 4-inch cast iron pipe with 6-inch ductile iron pipe.

Project Justification

During the Water System Master Plan, Operations Staff identified and prioritized six pipeline projects based on age and condition. This project was prioritized by staff to be the single most important project to OLWS when trying to avoid main breaks.

Operations and Maintenance Impact

Completion of this project would lessen overall main breaks and thus lower operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 320,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	320,000	-	320,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-5
Project Name: Oatfield Road

Project Description

This project replaces 16,000 feet of 6 and 8-inch cast iron pipe with 8-inch ductile iron pipe over three years.

Project Justification

During the Water System Master Plan, Operations Staff identified and prioritized six pipeline projects based on age and condition. This project was prioritized by staff to be the fifth most important project to OLWS when trying to avoid main breaks. Oatfield Road and its ADA ramps were also identified by Clackamas County to be replaced before 2030. This has since been delayed, but the project is still a high priority for replacement. Therefore, getting ahead of the paving will help OLWS avoid substantial paving requirements.

Operations and Maintenance Impact

Completion of this project would lessen overall main breaks and thus lower operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 8,569,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
200,000	2,772,000	2,665,000	2,932,000	-	-	8,569,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-6
Project Name: Round Oaks Court

Project Description

This project replaces 345 feet of 3-inch PVC pipe with 4-inch ductile iron pipe over three years.

Project Justification

During the Water System Master Plan, Operations Staff identified and prioritized six pipeline projects based on age and condition. This project was prioritized by staff to be the fifth most important project to OLWS when trying to avoid main breaks.

Operations and Maintenance Impact

Completion of this project would lessen overall main breaks and thus lower operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 219,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	219,000	-	219,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-7
Project Name: Seal Coat Valley View Reservoir Domes

Project Description

The Valley View tanks are prestressed concrete tanks and require a seal coat on the domed roofs of the two tanks to protect small surface cracks in the concrete from further deterioration. Timing of a seal coat will depend on continued monitoring of the tank roof condition through periodic inspections. Application of a seal coat is anticipated to be necessary within the next 5 to 10 years unless observed crack propagation indicates a more immediate need.

Project Justification

Preservation of OLWS's water storage tanks is vital to providing safe drinking water to our customers. These tanks also provide water to Clackamas River Water, Gladstone and Sunrise Water Authority customers.

Operations and Maintenance Impact

This project will not change current operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 210,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
210,000	-	-	-	-	-	210,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-8
Project Name: View Acres Recoat Tank Exterior and Interior

Project Description

The tall steel View Acres tanks require new coatings regularly to protect the steel structure from corrosion and deterioration. This project will coat both the outside of the tanks against weather-induced corrosion, and the inside of the tanks, which can corrode from the potable water and moist air within.

Project Justification

Application of fresh coatings is essential for the long-term maintenance of steel structures.

Operations and Maintenance Impact

Regular recoatings will be needed in the future as coatings wear off over time.

Budget Information and Project Costs

Total Project Cost: \$ 272,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	272,000	-	-	-	-	272,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-11
Project Name: SCADA System Upgrades

Project Description

The supervisory control and data acquisition (SCADA) system is a network of computers that control pumps, valves, and other water delivery infrastructure in real time. This project will update the programmable logic controllers and other computer components.

Project Justification

Computerized controls regularly reach the end of their service life and need to be replaced.

Operations and Maintenance Impact

A well-functioning SCADA system saves countless hours of OLWS staff time by automating common tasks.

Budget Information and Project Costs

Total Project Cost: \$ 300,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
50,000	50,000	50,000	50,000	50,000	50,000	300,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-12
Project Name: Radio Telemetry Activation Study

Project Description

OLWS' Water System Master Plan identified a benefit to reactivating radio telemetry communications to serve as a backup communications system to the cellular modems. Radio telemetry units would be necessary at four OLWS facilities including Valley View, View Acres, the central operations shop, and the North Clackamas County Water Commission Water Treatment Plant.

Project Justification

Staff are constantly monitoring a number of variables that relate to serving safe drinking water. One example of this would be the level in a water reservoir. Radio telemetry allows staff to monitor this data remotely. During emergencies radio telemetry helps staff stay focused on fixing main breaks and fueling generators rather than making sure the tanks are at an appropriate level.

Operations and Maintenance Impact

Annual User License Fees would apply to the telemetry system.

Budget Information and Project Costs

Total Project Cost: \$ 26,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	26,000	-	-	-	-	-	26,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-13
Project Name: Pressure Reducing Valve Rebuild (Every 5 years)

Project Description

OLWS operates three pressure-reducing valves within the water distribution system. PRVs protect low-lying pipes and plumbing by reducing the pressure of potable water being delivered. OLWS has indicated that each of the PRVs should be rebuilt every five years. Typically this work is performed by an outside contractor.

Project Justification

Rebuilding these valves every 5 years ensures that OLWS can control operating pressures throughout the system. Failure of these valves could cause both private property damage as well as damage to the public infrastructure if pressure gets too high.

Operations and Maintenance Impact

These valves should be inspected at least once per year and rebuilt every 5 years to prevent failures.

Budget Information and Project Costs

Total Project Cost: \$ 32,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	32,000	-	-	32,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-14
Project Name: Large Meter Testing and Replacement

Project Description

This project aims to keep up with testing of large meters throughout the service area. Testing will be conducted to make sure the meter is reading within an acceptable range. If it is not, it will be repaired to ensure proper readings.

Project Justification

By testing and repairing meters, OLWS can ensure that it is collecting correct revenues for usage.

Operations and Maintenance Impact

This project is the operating cost for making sure correct revenues are collected.

Budget Information and Project Costs

Total Project Cost: \$ 360,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
60,000	60,000	60,000	60,000	60,000	60,000	360,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-15
Project Name: Vault Meter Bypass Installations

Project Description

During the creation of OLWS' Water System Master Plan, Staff raised awareness to the fact that some of OLWS' (older) larger meters do not have a bypass. Not having a bypass makes it difficult for staff to test and/or replace a customer's meter without putting them out of service.

Project Justification

This project would speed up the process of testing and/or larger meters throughout the service area. Accurate measurement of water consumed by each customer is vital to OLWS' ability to properly bill.

Operations and Maintenance Impact

This project would speed up the process of testing and/or larger meters throughout the service area. Accurate measurement of water consumed by each customer is vital to OLWS' ability to properly bill.

Budget Information and Project Costs

Total Project Cost: \$ 140,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
140,000	-	-	-	-	-	140,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: C-16
Project Name: Hydrant Capital Repair and Replacement

Project Description

Over the next 20- years OLWS plans to replace all 4 ½-inch hydrants to meet the current standard. Replacements are likely to occur in conjunction with condition based replacements as described in the previous section and with fire flow projects described in the previous chapter. There will still be a remaining number of hydrants outside of the scope of the condition and fire flow projects that will also need to be replaced within the next 20 years.

Project Justification

OLWS' current potable water system standards require each fire hydrant to use a 5 ¼-inch valve. Older hydrants exist throughout the distribution system that have a 4 ½-inch valve.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 300,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	100,000	100,000	100,000	-	-	-	300,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: E-2
Project Name: Water System Master Plan - Update

Project Description

This project would update OLWS' Water System Master Plan. Specific updates would be removing completed CIP's from the list, updating population demand forecasts and re-running the water model to confirm OLWS is staying ahead of growth and failures within the system.

Project Justification

Planning capital improvements beyond 5 years can be a challenge for water utilities; however, a targeted update to the master plan on a 5-year cycle can dramatically improve the utility of the WSMP.

Operations and Maintenance Impact

This project would identify projects to be completed, but has not direct impact on future operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 213,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	213,000	-	213,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-2
Project Name: River Rd, Torbank Rd, Maple St.

Project Description

This project designs the replacement of 6,800 feet of 4, 6, and 8-inch ductile iron pipe with 8 and 12-inch ductile iron pipe.

Project Justification

Identified by the Master Plan as a high priority backbone project that would help fire flows and meet future demand near River Road.

Operations and Maintenance Impact

Completion of this project would lessen the chance of main breaks which in turn would lower operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 5,120,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	320,000	2,400,000	2,400,000	-	-	5,120,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-3
Project Name: Vista Sunrise Court

Project Description

Replace 400 feet of 6" pipe with 8" DI pipe along SE Vista Sunrise Court north of SE Oetkin Road.

Project Justification

Identified by the Master Plan as a high priority project that would help fire flows and meet future demand.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 219,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		-	-	-	219,000	-	219,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-4
Project Name: Colina Vista, Clayson Avenues, Emerald Drive, Colony Circle

Project Description

Replace 8,300 feet of 6" pipe with 8" DI pipe along Emerald Drive, Colina Vista Avenue, Clayson Avenue, and Colony Circle.

Project Justification

Identified by the Master Plan as a high priority project that would help fire flows and meet future demand.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 3,620,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	3,620,000	-	-	-	-	-	3,620,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-5
Project Name: Alderway Avenue

Project Description

Replace 1,070 feet of 4" pipe with 8" DI pipe along Alderway Avenue between Wallace Road and Hillwood Avenue.

Project Justification

Identified by the Master Plan as a high priority project that would help fire flows and meet future demand.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 576,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
				576,000	-	576,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-6
Project Name: View Acres Road

Project Description

Replace 2,130 feet of 6" pipe with 8" DI pipe along View Acres Road.

Project Justification

Identified by the Master Plan as a high priority project that would help fire flows and meet future demand.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 1,146,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	1,146,000	-	1,146,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-7
Project Name: Glen Echo Avenue and Meldrum Avenue

Project Description

Replace 1,310 feet of 6" pipe with 8" DI pipe along Glen Echo Avenue and Meldrum Avenue.

Project Justification

Identified by the Master Plan as a high priority project that would help fire flows and meet future demand.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 746,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
-	-	-	-	-	746,000	746,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-8
Project Name: Hull Avenue and Wilmont Street

Project Description

Replace 3,565 feet of 6" pipe with 8" DI pipe along Hull Avenue and Wilmot Street

Project Justification

Identified by the Master Plan as a high priority project that would help fire flows and meet future demand.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 1,920,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	-	-	1,920,000	1,920,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: F-9
Project Name: McLoughlin Blvd., Maple St., Oak Grove Blvd., Risley Ave.

Project Description

Replace 5,455 feet of 4" and 6" pipe with 8" DI pipe along McLoughlin Blvd., Maple St., Oak Grove Blvd., and Risley Ave.

Project Justification

Identified by the Master Plan as a high priority project that would help fire flows and meet future demand.

Operations and Maintenance Impact

This project will not increase operating costs.

Budget Information and Project Costs

Total Project Cost: \$ 2,984,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
-	-	-	-	1,492,000	1,492,000	2,984,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: R-2
Project Name: Milwaukie-OLWS Intertie Pump Station

Project Description

This project would include construction of a pump station and pipe connection between the Oak Lodge and Milwaukie's water distribution system.

Project Justification

With a single source of supply through the 24-inch pipeline from the NCCWC, the District is vulnerable to an outage caused by an unplanned pipe break. Portions of the pipeline closer to the Clackamas River are expected to have an increased risk of breakage due to lateral spreading and liquefaction-induced settlement.

Operations and Maintenance Impact

This emergency intertie would be an addition to the OLWS drinking water system. Pumps will need to be maintained, staff will need to be trained and power will be consumed when it is in use.

Budget Information and Project Costs

Total Project Cost: \$ 9,491,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	111,000	4,605,000	4,775,000	-	9,491,000

CAPITAL IMPROVEMENT PLAN - WATER

Project Number: W-3
Project Name: Water Pump Station Generator at CRW

Project Description

This project provides a backup power source for the potable water pump station at Clackamas River Water (CRW) water treatment plant. In the event OLWS's primary water source, North Clackamas County Water Commission (NCCWC), cannot deliver water as usual, the station at CRW can instead pump treated water from CRW up to OLWS's Valley View Reservoirs, as well as to reservoirs within Sunrise Water Authority.

Project Justification

Many of the events that can interrupt the delivery of treated drinking water to OLWS can be regional, such as grid-wide power failure following a storm. Resiliency to such events is upheld with redundant water sources and independent backup power. These measures keep fresh water flowing for drinking and fire suppression when the water supply may be needed the most.

Operations and Maintenance Impact

This generator will need to be inspected regularly and maintained annually.

Budget Information and Project Costs

Total Project Cost: \$ 259,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	259,000	-	-	-	-	259,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-1
Project Name: Lift Station 5 Basin RDII

Project Description

This project will complete follow-up data gathering after completion construction to reduce RDII in the Lift Station 5 Basin with post-rehabilitation flow monitoring at 5 locations.

Project Justification

Rainfall-derived Infiltration and Inflow (RDII) occurs after heavy rains when rainwater makes its way into the collections system and mixes with the wastewater. The full combined flow then needs to be transported and treated. By shoring up the collections system against RDII, all downstream conveyance and treatment infrastructure can be right-sized to treat customer's wastewater only without also conveying and treating rainwater.

Operations and Maintenance Impact

OLWS has commissioned past studies showing how the cost of RDII reductions is far less expensive than upgrading downstream infrastructure to handle combined flows.

Budget Information and Project Costs

Total Project Cost: \$ 175,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
175,000	-	-	-	-	-	175,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-2
Project Name: Lift Station 2 Basin RDII

Project Description

This project will enact the following measures to reduce RDII in the Lift Station 2 Basin:

Flow metering at 17 locations (pre- and post-rehab); rehab of 11,145 LF of 8” pipe, 304 LF of 12” pipe, 4 LF of 14” pipe, 251 LF of 18” pipe, 752 LF of 20” pipe, and 338 LF of 21” pipe; rehab of 9 manholes (95 VF); and rehab of 198 laterals from the main to the property connection.

Project Justification

Rainfall-derived Infiltration and Inflow (RDII) occurs after heavy rains when rainwater makes its way into the collections system and mixes with the wastewater. The full combined flow then needs to be transported and treated. By shoring up the collections system against RDII, all downstream conveyance and treatment infrastructure can be right-sized to treat customer's wastewater only without also conveying and treating rainwater.

Operations and Maintenance Impact

OLWS has commissioned past studies showing how the cost of RDII reductions is far less expensive than upgrading downstream infrastructure to handle combined flows.

Budget Information and Project Costs

Total Project Cost: \$ 9,335,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	1,875,000	3,730,000	3,730,000	-	-	-	9,335,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-3
Project Name: Lift Station 6 Basin RDII

Project Description

This project will complete follow-up data gathering after completion construction to reduce RDII in the Lift Station 6 Basin with post-rehabilitation flow monitoring at 2 locations.

Project Justification

Rainfall-derived Infiltration and Inflow (RDII) occurs after heavy rains when rainwater makes its way into the collections system and mixes with the wastewater. The full combined flow then needs to be transported and treated. By shoring up the collections system against RDII, all downstream conveyance and treatment infrastructure can be right-sized to treat customer's wastewater only without also conveying and treating rainwater.

Operations and Maintenance Impact

OLWS has commissioned past studies showing how the cost of RDII reductions is far less expensive than upgrading downstream infrastructure to handle combined flows.

Budget Information and Project Costs

Total Project Cost: \$ 32,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	32,000	-	-	-	32,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-4
Project Name: Influent Lift Station Basin RDII

Project Description

This project will enact the following measures to reduce RDII in the Influent Lift Station Basin:

Smoke testing 207,930 LF of pipe; flow metering at 21 locations (pre- and post-rehab); rehab of 270 LF of 6" pipe, 12,725 LF of 8" pipe, 500 LF of 10" pipe, 250 LF of 12" pipe, 250 LF of 15" pipe, and 1,430 LF of 21" pipe; rehab of 17 manholes (179 VF); and rehab of 326 laterals from the main to the property connection.

Project Justification

Rainfall-derived Infiltration and Inflow (RDII) occurs after heavy rains when rainwater makes its way into the collections system and mixes with the wastewater. The full combined flow then needs to be transported and treated. By shoring up the collections system against RDII, all downstream conveyance and treatment infrastructure can be right-sized to treat customer's wastewater only without also conveying and treating rainwater.

Operations and Maintenance Impact

OLWS has commissioned past studies showing how the cost of RDII reductions is far less expensive than upgrading downstream infrastructure to handle combined flows.

Budget Information and Project Costs

Total Project Cost: \$ 9,322,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	580,000	4,264,000	-	2,239,000	2,239,000	-	9,322,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-5
Project Name: Lift Station 4 Basin RDII

Project Description

This project will enact the following measures to reduce RDII in the Lift Station 4 Basin:

Smoke testing 2,335 LF of pipe; flow metering at 1 location (pre- and post-rehab); rehab of 490 LF of 8” pipe; rehab of 1 manhole (11 VF); and rehab of 4 laterals from the main to the property connection.

Project Justification

Rainfall-derived Infiltration and Inflow (RDII) occurs after heavy rains when rainwater makes its way into the collections system and mixes with the wastewater. The full combined flow then needs to be transported and treated. By shoring up the collections system against RDII, all downstream conveyance and treatment infrastructure can be right-sized to treat customer's wastewater only without also conveying and treating rainwater.

Operations and Maintenance Impact

OLWS has commissioned past studies showing how the cost of RDII reductions is far less expensive than upgrading downstream infrastructure to handle combined flows.

Budget Information and Project Costs

Total Project Cost: \$ 321,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		-	-	-	22,000	299,000	321,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-6
Project Name: Lift Station 3 Basin RDII

Project Description

This project will enact the following measures to reduce RDII in the Lift Station 3 Basin:

Smoke testing 51,310 LF of pipe; flow metering at 5 locations (pre- and post-rehab); rehab of 19,500 LF of 8" pipe, 1,010 LF of 10" pipe, 1,790 LF of 12" pipe, and 1,000 LF of 15" pipe; rehab of 168 manholes (179 VF); and rehab of 428 laterals from the main to the property connection.

Project Justification

Rainfall-derived Infiltration and Inflow (RDII) occurs after heavy rains when rainwater makes its way into the collections system and mixes with the wastewater. The full combined flow then needs to be transported and treated. By shoring up the collections system against RDII, all downstream conveyance and treatment infrastructure can be right-sized to treat customer's wastewater only without also conveying and treating rainwater.

Operations and Maintenance Impact

OLWS has commissioned past studies showing how the cost of RDII reductions is far less expensive than upgrading downstream infrastructure to handle combined flows.

Budget Information and Project Costs

Total Project Cost: \$ 6,471,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		-	-	1,141,000	2,665,000	2,665,000	6,471,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-8
Project Name: Trunk Main A Upsizing

Project Description

Trunk Main A conveys over half of all wastewater collected in OLWS from Lift Station 2 to the Wastewater Treatment Plant. This project includes the installation of 3,516 LF of 24", 240 LF of 27", and 3,202 LF of 30" gravity wastewater main. Depending on the effectiveness of RDII reductions, this scope may be reduced.

Project Justification

Trunk Main A is currently undersized to convey both normal wastewater flows and the surges of rainfall-derived inflow and infiltration (RDII) experienced after heavy rainfall.

Operations and Maintenance Impact

This project would reduce the likelihood of sanitary sewer overflow events at Lift Station 2.

Budget Information and Project Costs

Total Project Cost: \$ 10,017,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	1,732,000	8,285,000	10,017,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-9
Project Name: Trunk Main B Upsizing

Project Description

Trunk Main B conveys a majority of wastewater collected in the Influent Pump Station Basin. This project includes the installation of 360 LF of 15", 4,600 LF of 18", and 3,730 LF of 24" gravity wastewater main. Depending on the effectiveness of RDII reductions, this scope may be reduced.

Project Justification

Trunk Main B is currently undersized to convey both normal wastewater flows and the surges of rainfall-derived inflow and infiltration (RDII) experienced after heavy rainfall.

Operations and Maintenance Impact

This project will reduce the likelihood of sanitary sewer overflow events in the Influent Pump Station Basin.

Budget Information and Project Costs

Total Project Cost: \$ 1,599,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
-	-	-	-	-	1,599,000	1,599,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-11
Project Name: Trunk Main C Upsizing

Project Description

This project includes the installation of 290 LF of 10" gravity wastewater main. Depending on the effectiveness of RDII reductions, this scope may be reduced.

Project Justification

Rainfall-derived Infiltration and Inflow (RDII) occurs after heavy rains when rainwater makes its way into the collections system and mixes with the wastewater. The full combined flow then needs to be transported and treated. By shoring up the collections system against RDII, all downstream conveyance and treatment infrastructure can be right-sized to treat customer's wastewater only without also conveying and treating rainwater.

Operations and Maintenance Impact

OLWS has commissioned past studies showing how the cost of RDII reductions is far less expensive than upgrading downstream infrastructure to handle combined flows.

Budget Information and Project Costs

Total Project Cost: \$ 239,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		-	-	-	26,000	213,000	239,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-14
Project Name: Lateral Repair Program

Project Description

The focus of this program is to repair and replace the public portion (the portion in the right-of-way) of wastewater laterals. Priority will be given to laterals allowing stormwater inflow and infiltration through breaks and which cause the greatest impacts to the operating budget.

Project Justification

OLWS is responsible for wastewater laterals from the mainline to the property line or easement boundary. Currently there are 7550 laterals in the service area and the replacement of each is averaging around \$10,000 per lateral. If each lateral were to be replaced once every 100 years, the cost would be \$755,000 per year on this program.

Operations and Maintenance Impact

This project will decrease operating expenditures by reducing the total amount of inflow and infiltration into the wastewater system. Replacement of these laterals also help minimize risk to OLWS before failures cause damage to private property.

Budget Information and Project Costs

Total Project Cost: \$ 900,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	150,000	150,000	150,000	150,000	150,000	150,000	900,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-16
Project Name: Lift Station 3 Rehabilitation

Project Description

This project will largely reconstruct Wastewater Lift Station 3. The mechanical and electrical components of the station will be completely overhauled. Several configurations for the wetwell are being considered, including refurbishing the existing wetwell or building a new one. Either way, the station will feature a submersible pump configuration that is safer and easier to maintain.

Project Justification

The pumps and other mechanics of this station are aged, difficult to maintain, and awkwardly located in multiple chambers below ground. Recent Tri-Met transportation improvements around Lift Station 3 have created an urban-style construction challenge as a light rail terminal, the Trolley Trail, and Park Avenue all intersect next to Lift Station 3.

Operations and Maintenance Impact

The rebuilt station will demand fewer resources to keep running smoothly, both in terms of OLWS staff time and vendor-provided services.

Budget Information and Project Costs

Total Project Cost: \$ 2,756,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
325,000	1,194,000	1,237,000	-	-	-	2,756,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-17
Project Name: Manhole Repair Program

Project Description

This program was created to ensure the replacement of all manholes within the wastewater network over a 150-year period. In the case of a manhole having satisfactory structural integrity, manhole rehabilitation (i.e., manhole lining or grouting) will be done in lieu of full manhole replacement. Manholes to be replaced or rehabilitated will be identified by staff on an annual basis.

Project Justification

While manholes are relatively low-maintenance and last quite some time, they are vital to conveying sewage and providing access for inspections of mainlines. Keeping good records in the District's asset management database, staff will stay ahead of failures by rehabilitating when needed rather than complete replacement.

Operations and Maintenance Impact

This project will not increase operating expenditures. These projects will replace or repair manholes one-for-one and will not increase the number of wastewater assets system-wide.

Budget Information and Project Costs

Total Project Cost: \$ 450,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	75,000	75,000	75,000	75,000	75,000	75,000	450,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-18
Project Name: Mainline Repair Program

Project Description

The focus of this program is to repair and replace wastewater main lines, 8-inch diameter or smaller. Priority will be given to broken mainlines at risk of collapse and allowing stormwater inflow and infiltration into the collection system.

Project Justification

Stormwater seeps into the ground and makes its way into collection system through cracks in buried sewer pipe. This unwelcomed stormwater overwhelms the system's capacity to transport domestic wastewater from homes and businesses.

Operations and Maintenance Impact

Avoids fines and penalties from DEQ resulting from non-compliance with permit.

Budget Information and Project Costs

Total Project Cost: \$ 450,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	75,000	75,000	75,000	75,000	75,000	75,000	450,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-19
Project Name: Lift Station 4 Rehabilitation

Project Description

This project will replace electrical and control equipment at Wastewater Lift Station 4. Work will include adding a gravel access driveway to provide vehicle access to the wet well and driveway and replacement of lift station pipe, valves and fittings.

Project Justification

With the completion of the Lift Station 4 Rainfall Derived Infiltration and Inflow reduction project, flow through the lift station will more accurately reflect the amount of wastewater in the system. The rehabilitation project will determine seismic resiliency and standby power elements to improve the ability to continue wastewater conveyance during and after unexpected natural hazard events, such as earthquakes or large power outages from winter storms.

Operations and Maintenance Impact

The rebuilt station will demand fewer resources to keep running smoothly, both in terms of OLWS staff time and vendor-provided services.

Budget Information and Project Costs

Total Project Cost: \$ 310,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	43,000	267,000	310,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-20
Project Name: Lift Station 6 Rehabilitation

Project Description

This project will replace electrical and control equipment at Wastewater Lift Station 6. Work will include adding a gravel surfacing, lift station structural modifications, epoxy coating the wetwell and discharge manhole, electrical upgrades, replacement of lift station pipe, valves and fittings, and fencing around the lift station.

Project Justification

With the completion of the Lift Station 6 Rainfall Derived Infiltration and Inflow reduction project, flow through the lift station will more accurately reflect the amount of wastewater in the system. The rehabilitation project will determine seismic resiliency and standby power elements to improve the ability to continue wastewater conveyance during and after unexpected natural hazard events, such as earthquakes or large power outages from winter storms.

Operations and Maintenance Impact

The rebuilt station will demand fewer resources to keep running smoothly, both in terms of OLWS staff time and vendor-provided services.

Budget Information and Project Costs

Total Project Cost: \$ 1,743,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	-	-	144,000	1,599,000	1,743,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: C-21
Project Name: Lift Station 2 Generator

Project Description

This project will replace the generator at Lift Station 2.

Project Justification

The existing generator at Lift Station 2 has reached the end of its useful life. This generator is a critical component to prevent wastewater overflows into the Willamette River during power failures. The generator is over 30 years old. Replacement ensures reliable backup power in the even of a power outage.

Operations and Maintenance Impact

Unreliable equipment created burdens on staff through repair costs, on-call responses, and emergency response to bypasses. Replacing the generator will reduce operations and maintenance costs.

Budget Information and Project Costs

Total Project Cost: \$ 250,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	250,000	-	-	-	-	-	250,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-1
Project Name: Aeration Instr. & Controls

Project Description

Instrumentation and controls for the aeration basins will need to be replaced or upgraded to meet the requirements for implementing and maintaining the proposed Simultaneous Nitrification Denitrification/Anaerobic-Anoxic-Oxic (SND/A2O) process in the aeration basins.

Project Justification

Modifications are required for secondary treatment of wastewater in consideration of future regulatory drivers, potential cost savings, and aging equipment. These modifications were identified and recommended in the 2022 Wastewater Master Plan.

Operations and Maintenance Impact

Implementation of the SND/A2O process will provide energy savings by reducing oxygen demand from the blowers. Additional instrumentation will require staff time for monitoring and replacement.

Budget Information and Project Costs

Total Project Cost: \$ 421,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	48,000	373,000	-	-	421,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-2
Project Name: Chemical Feed Systems

Project Description

Chemical feed systems for the aeration basins will likely need to be added to meet the requirements for implementing and maintaining the proposed Anaerobic-Anoxic-Oxic (SND/A2O) process in the aeration basins.

Project Justification

Modifications are required for secondary treatment of wastewater in consideration of future regulatory drivers, potential cost savings, and aging equipment. These modifications were identified and recommended in the 2022 Wastewater Master Plan.

Chemical feed systems may be required depending on effluent phosphorus levels and corresponding regulatory limits, and would only be considered for implementing the A2O process.

Operations and Maintenance Impact

Additional costs are expected for purchasing chemical additives. Additional staff time is required for monitoring and maintenance of equipment.

Budget Information and Project Costs

Total Project Cost: \$ 199,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	25,000	174,000	-	-	199,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-4
Project Name: Aeration Basin Diffusers

Project Description

Aeration basin diffusers will need to be reconfigured to meet the requirements for implementing and maintaining the proposed Simultaneous Nitrification Denitrification/Anaerobic-Anoxic-Oxic (SND/A2O) process in the aeration basins.

Project Justification

Modifications are required for secondary treatment of wastewater in consideration of future regulatory drivers, potential cost savings, and aging equipment. These modifications were identified and recommended in the 2022 Wastewater Master Plan.

Operations and Maintenance Impact

Improvements to the diffusers will help maximize efficiency in the Aeration Basins, ultimately assisting in lowering blower operation speed.

Budget Information and Project Costs

Total Project Cost: \$ 211,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		25,000	186,000	-	-	-	211,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-5
Project Name: Replace Mixers

Project Description

Mixers will need to be replaced and/or added to meet the requirements for implementing and maintaining the proposed Simultaneous Nitrification Denitrification/Anaerobic-Anoxic-Oxic (SND/A2O) process in the aeration basins.

Project Justification

Modifications are required for secondary treatment of wastewater in consideration of future regulatory drivers, potential cost savings, and aging equipment. These modifications were identified and recommended in the 2022 Wastewater Master Plan.

Operations and Maintenance Impact

Additional equipment will inherently increase maintenance requirements.

Budget Information and Project Costs

Total Project Cost: \$ 1,602,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	168,000	1,434,000	-	-	1,602,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-6
Project Name: Internal Mixed Liquor Recycle Piping

Project Description

Piping will need to be replaced and/or added to meet the requirements for implementing and maintaining the proposed Simultaneous Nitrification Denitrification/Anaerobic-Anoxic-Oxic (SND/A2O) process in the aeration basins.

Project Justification

Modifications are required for secondary treatment of wastewater in consideration of future regulatory drivers, potential cost savings, and aging equipment. These modifications were identified and recommended in the 2022 Wastewater Master Plan.

Operations and Maintenance Impact

There is no measurable impact to maintenance or operations.

Budget Information and Project Costs

Total Project Cost: \$ 901,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		-	96,000	396,000	409,000	-	901,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-7
Project Name: Replace 3 Internal Mixed Liquor Recycle Pumps

Project Description

Mixed Liquor Recycle pumps will need to be replaced and/or added to meet the requirements for implementing and maintaining the proposed Simultaneous Nitrification Denitrification/Anaerobic-Anoxic-Oxic (SND/A2O) process in the aeration basins.

Project Justification

Modifications are required for secondary treatment of wastewater in consideration of future regulatory drivers, potential cost savings, and aging equipment. These modifications were identified and recommended in the 2022 Wastewater Master Plan.

Operations and Maintenance Impact

There is no measurable impact to maintenance or operations.

Budget Information and Project Costs

Total Project Cost: \$ 296,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	36,000	260,000	-	-	296,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-8
Project Name: Foam Management/Wasting Facility

Project Description

Installation of water sprays, a classifying selector, and a foam wasting station at the aeration basins to manage excess foaming.

Project Justification

Excess foaming often occurs at the aeration basins and has the potential to affect effluent quality. Adding a foam management system would further improve WTP performance.

Operations and Maintenance Impact

Additional equipment will inherently increase maintenance requirements.

Budget Information and Project Costs

Total Project Cost: \$ 210,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	24,000	186,000	-	-	-	210,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-9
Project Name: Secondary Clarifier 1 & 2 Refurishment

Project Description

This project primarily replaces the internal mechanisms of secondary clarifiers 1 and 2, which are reaching the end of their lifespan. These two older clarifiers will be rebuilt to perform as well as secondary clarifiers 3 and 4, which came online in 2012. Additional improvements will be made to walkways, safety railings, power supply, plant drain system, and return activated sludge control equipment.

Project Justification

The steel and fiberglass components are losing their structural strength, drive mechanisms are breaking down, and the two old clarifiers perform poorly at their main task of clarifying water. These clarifiers pre-date the plant's rebuild around 2011.

Operations and Maintenance Impact

Reduces the risk of critical down time by replacing steel components deteriorating from rust. Provides long-term value by reinstalling mechanisms with corrosion-resistant materials. Enhances clarifier performance. Reduces need for mechanical repairs.

Budget Information and Project Costs

Total Project Cost: \$ 4,690,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	2,302,000	2,388,000	-	-	-	4,690,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-11
Project Name: Aeration Basin Baffle Walls

Project Description

Baffle walls will need to be added between the aeration basins to separate anoxic and aerobic processes. This process change is necessary to meet the requirements for implementing and maintaining the proposed Simultaneous Nitrification Denitrification/Anaerobic-Anoxic-Oxic (SND/A2O) process in the aeration basins.

Project Justification

Modifications are required for secondary treatment of wastewater in consideration of future regulatory drivers, potential cost savings, and aging equipment. These modifications were identified and recommended in the 2022 Wastewater Master Plan.

Operations and Maintenance Impact

There is no measurable impact to maintenance or operations.

Budget Information and Project Costs

Total Project Cost: \$ 321,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	36,000	285,000	-	-	321,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-12
Project Name: Tertiary Treatment at WWTP

Project Description

OLWS Wastewater Treatment Plant (WWTP) has primary and secondary treatment. This project will add a tertiary level of treatment to the first two. This third phase of water purification polishes clarified wastewater with filters, removing microscopic particles that would otherwise get released to the Willamette River. When the WWTP was redesigned around 2009, space was left open for a tertiary treatment facility.

Project Justification

Through the new NPDES Permit, the Environmental Protection Agency has set stricter limits for the purity of water leaving the plant. The addition of tertiary treatment helps meet the more stringent requirements all year round.

Operations and Maintenance Impact

This additional stage of wastewater treatment demands additional power and maintenance. Although the power demand of tertiary filters is relatively low, maintenance time will be increased for OLWS staff, and new parts and materials will be needed to maintain the new filters.

Budget Information and Project Costs

Total Project Cost: \$ 11,000,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	11,000,000	-	-	-	-	-	11,000,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-14
Project Name: UV Disinfection Rehabilitation

Project Description

This project makes permanent improvements to the UV channels that disinfect treated wastewater before releasing it to the river. The project will replace effluent flow meters, complex gate maneuvering and level control with a new level control system, and influent gates with simple actuated slide gates. The project also inspects and modernizes the UV bulb control system itself.

Project Justification

The intent of the rebuild is to simplify maintenance, make level control more reliable, and increase the redundancy of the UV disinfection system, which is vital to permit compliance.

Operations and Maintenance Impact

This project will reduce the time needed by OLWS staff in maintaining the water level control system of the UV channels.

Budget Information and Project Costs

Total Project Cost: \$ 1,451,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		144,000	627,000	680,000	-	-	1,451,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-15
Project Name: UV Disinfection Equipment Replacement

Project Description

This project replaces ultraviolet (UV) disinfection equipment.

Project Justification

UV disinfection equipment is reaching the end of its service life. The UV disinfection bulbs are replaced every 4 years and OLWS replaces on quarter of them each year.

Operations and Maintenance Impact

This project imparts no material change to daily operations.

Budget Information and Project Costs

Total Project Cost: \$ 267,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	37,000	40,000	43,000	46,000	49,000	52,000	267,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-16
Project Name: Influent Lift Stat. Reconstruct

Project Description

This project will reconfigure the Wastewater Treatment Plant’s (WWTP’s) Influent Pump Station Wetwell. The existing wetwell has a sharp boxy shape that collects grit and debris. This project will reshape the well to direct influent wastewater directly to the pumps, add security enhancements, and provide tools for managing the surface of the wastewater.

Project Justification

During the construction of the WWTP, certain items at the Influent Pump Station were value engineered out. These items have caused for more maintenance on behalf of the treatment plant staff. Fixing these items will allow for staff to focus on other operational tasks.

Operations and Maintenance Impact

This project will reduce maintenance for the plant staff.

Budget Information and Project Costs

Total Project Cost: \$ 1,388,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	130,000	608,000	650,000	-	-	-	1,388,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-19
Project Name: Influent Screens Seals

Project Description

This project will keep the existing Huber Multi-Rake influent screens and adjust the channel fit.

Project Justification

Debris including floating material can pass through the fine screening system and cause operational problems such as becoming trapped on mixer blades in the aeration basins. There appear to be gaps in the seal between the equipment frame and concrete channel where the screens are installed that may be the reason for the lack of capture.

Operations and Maintenance Impact

This project will reduce maintenance for the plant staff.

Budget Information and Project Costs

Total Project Cost: \$ 90,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
90,000	-	-	-	-	-	90,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-24
Project Name: GBT Refurbishment

Project Description

The gravity belt thickener (GBT) thickens the sludge during the treatment process. This project would refurbish the existing GBT as a part of plant maintenance.

Project Justification

The GBT is reaching the end of its service life and will need to be refurbished to continue operating reliably.

Operations and Maintenance Impact

Refurbishing equipment will decrease staff maintenance time and increase plant efficiency.

Budget Information and Project Costs

Total Project Cost: \$ 298,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		-	298,000	-	-	-	298,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-25
Project Name: TWAS Pump Replacement

Project Description

Thickened waste activated sludge (TWAS) is pumped from the secondary clarifiers to the aerobic digesters. This project would replace these pumps.

Project Justification

The TWAS pumps are reaching the end of their service life and will need to be refurbished to continue operating reliably.

Operations and Maintenance Impact

Refurbishing equipment will decrease staff maintenance time and increase plant efficiency.

Budget Information and Project Costs

Total Project Cost: \$ 90,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
		-	90,000	-	-	-	90,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-29
Project Name: Motor Control (VFD) Replacement and Upgrades

Project Description

This project replaces existing variable frequency drive (VFD) motor controllers. VFDs manipulate the shape of electrical power being supplied to large electric motors as a means to adjust the rotational speed of pumps, blower, and other powerful machines.

Project Justification

The existing VFDs are reaching the end of their service life.

Operations and Maintenance Impact

This project imparts no material change to daily operations.

Budget Information and Project Costs

Total Project Cost: \$ 297,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	42,000	45,000	48,000	51,000	54,000	57,000	297,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: T-31
Project Name: Backup Generator Switch Replacement

Project Description

Replace the backup generator switch.

Project Justification

PGE has identified the backup generator switch as nearing the end of it's service life. Replacement is recommended before the switch fails.

Operations and Maintenance Impact

This project will replace parts before potential failure in the next few years.

Budget Information and Project Costs

Total Project Cost: \$ 300,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	300,000	-	-	-	-	300,000

CAPITAL IMPROVEMENT PLAN - WASTEWATER

Project Number: P-1
Project Name: Wastewater Master Plan Update

Project Description

This project revisits the Wastewater Master Plan initially published in 2023 and provides an update to the big-picture direction of the entire wastewater collections and treatment system.

Project Justification

The Wastewater Master Plan is a continuously active plan that is most helpful when maintained and kept up to date.

Operations and Maintenance Impact

Master planning reduces operational costs in the long run by aiding prudent decision making.

Budget Information and Project Costs

Total Project Cost: \$ 507,000

EXPENSES

FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	320,000	187,000	-	-	507,000

CAPITAL IMPROVEMENT PLAN - WATERSHED PROTECTION

Project Number: WP-3
Project Name: Jennings Avenue Drainage Improvement

Project Description

Reconstruct the ditch that OLWS is responsible to maintain adjacent to 5212 SE Jennings Avenue.

Project Justification

Prior ditch maintenance at this location is causing to erode the ditch banks near property infrastructure.

Operations and Maintenance Impact

Budget Information and Project Costs

Total Project Cost: \$ 300,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	300,000	-	-	-	-	-	300,000

CAPITAL IMPROVEMENT PLAN - WATERSHED PROTECTION

Project Number: WP-2
Project Name: Localized Enhancement Program

Project Description

This program aims to fix small to medium scale localized issues throughout the service area. Projects will include replacement of damaged stormwater pipes owned by OLWS, create new roadside surface water treatment and address issues brought forth by OLWS customers.

Project Justification

The Board as well as staff often hear about issues throughout the service area related to flooding. By programming money to either solve these issues or participate in multi-jurisdictional projects, OLWS can start to alleviate these issues for our rate-payers.

Operations and Maintenance Impact

These projects will both decrease Staff's time reporting to localized flooding and increase maintenance of OLWS owned facilities.

Budget Information and Project Costs

Total Project Cost: \$ 1,500,000

EXPENSES

	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL (in CIP)
	-	300,000	300,000	300,000	300,000	300,000	1,500,000

Contact Us

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“Investing in resilient infrastructure today will help keep our community healthy for generations.”

- BRAD ALBERT, PE
GENERAL MANAGER



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