



**Water Environment Services Advisory Committee
AGENDA**

Date: October 17, 2024
Time: 6:00 – 7:00 pm
Format: Zoom
Link to Zoom: <https://clackamascounty.zoom.us/j/81049648119>

Facilitator: Greg DiLoreto, WES Advisory Committee Chair

Time	Topic	Action
6:00 pm <i>2 minutes</i>	Call to Order & Welcome <i>Greg DiLoreto, Chair</i>	Roll Call
6:02 pm <i>7 minutes</i>	Director Updates <i>Greg Geist, Director</i>	Inform
6:09 pm <i>5 minutes</i>	Approve September Minutes <i>Greg DiLoreto, Chair</i>	Motion for Approval
6:14 pm <i>6 minutes</i>	Public Comment <i>Each public member who would like to speak will have 3 min. The meeting adjourn time may vary depending on public comments.</i>	Comment
6:20 pm <i>20 minutes</i>	RiverHealth Grant Annual Report <i>Presented by Gail Shaloum, Natural Resources Scientist & Rita Baker, WES Advisory Committee Member</i>	Inform
6:40 pm <i>15 minutes</i>	FY 24/25-28/29 Capital Improvement Plan (CIP) Summary <i>Presented by Jeff Stallard, Capital Program Manager & Erin Blue, Finance Manager</i>	Motion for Support
6:55 pm <i>5 minutes</i>	WES Advisory Committee Report-Outs <i>Greg DiLoreto, Chair</i>	Share
	Adjourn	



MEMORANDUM

TO: WES Advisory Committee

FROM: Jeff Stallard, Capital Program Manager
Erin Blue, Finance Manager

DATE: October 10, 2024

SUBJECT: WES Capital Improvement Plan for Fiscal Years 2025/26-2029/30

BACKGROUND

Clackamas Water Environment Services has completed our draft Capital Improvement Plan (CIP) for Fiscal Years 2025/26-2029/30. WES' CIP is a rolling five-year plan, which identifies and prioritizes wastewater and stormwater construction projects and major equipment purchases. Updated annually, the CIP provides planning level schedules, budget estimates, and identifies funding sources for projects. The CIP puts forward a prioritized plan that will maintain existing facilities, allow efficient, cost-effective operations and support service area growth while continuing to protect public health and water quality.

RECOMMENDATIONS AND NEXT STEPS

At the October 17 Advisory Committee meeting, WES will provide an additional update regarding any feedback received. Should the Advisory Committee have no further questions, a motion of support will be requested. Should the Advisory Committee support the motion, WES will present the CIP to the Board of Commissioners for adoption.



Minutes for Clackamas Water Environment Services (WES) Advisory Committee - DRAFT

Location: Zoom & In-person (Tri-City Water Resource Recovery Facility)

Video link: <https://www.youtube.com/watch?v=cGLTYhQt9jw>

Time: 6:00-7:00pm (optional Outfall Tour 7:00-7:30pm)

Date: September 12, 2024

Acting Chair: Greg DiLoreto, Secretary: Chris Koontz

Approval of previous meeting's minutes: Yes

Attendees:

Members in attendance: Rita Baker, Christina Brow, Carol Bryck, Greg DiLoreto, Anthony Fields, William Gifford, Renee Harber, Roseann Johnson, Adam Khosroabadi, Preston Korst, Denyse McGriff, Michael Milch, Michael Morrow

Quorum was established.

Members not in attendance: Christopher Bowker, Richard Craven, David Golobay, Brian Johnson, Kathryn Miller, Neil Schulman

Meeting called to order at 6:00PM by Chair DiLoreto.

Agenda items with timestamps from video linked above:

- **00:01:49** Director Updates – Presenter: Greg Geist, Director (Inform)
- **00:07:22** Approve July Minutes – Facilitator: Greg DiLoreto, Chair (Consensus Approval)
- **00:07:50** Public Comment – Facilitator: Greg DiLoreto, Chair (Comment)
- **00:08:20** FY24/25-28/29 Capital Improvement Plan (CIP) First Reading (1 of 2) – Presenter: Jeff Stallard, Capital Program Manager & Erin Blue, Finance Manager (Discuss)

Motions: None

Announcements: None

Meeting adjourned at 7:10pm by Chair DiLoreto

Respectfully submitted by:
Chris Koontz



WES Advisory Committee – October 17, 2024

Jeff Stallard, PE, Capital Manager

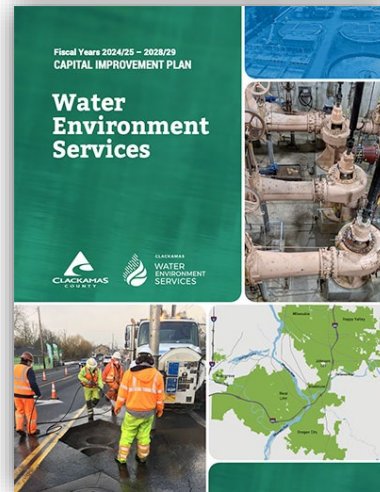
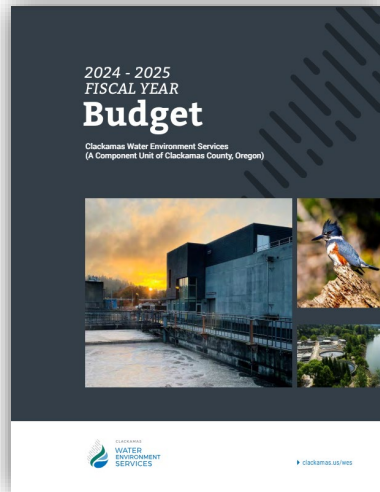
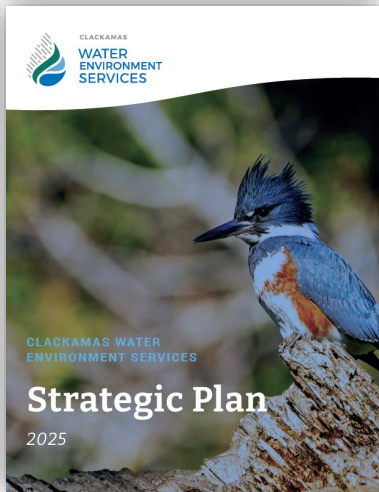
Erin Blue, Finance Manager



Capital Improvement Plan (CIP) FY25/26 – 29/30

Planning for the Future

Core Strategies



Summary of Major Updates to CIP

Updated all project cost estimates based on Engineering News Record Construction Cost Index (July 2024).

Adjusted the timing for the Upper and Lower Clackamas Interceptor Projects.

Adjusted the Timing of the Willamette Pump Station (PS) and Force Main (FM).

Updated the Cost of the Tri-City Influent Pump Station (IPS) to account for the additional Electrical Scope.

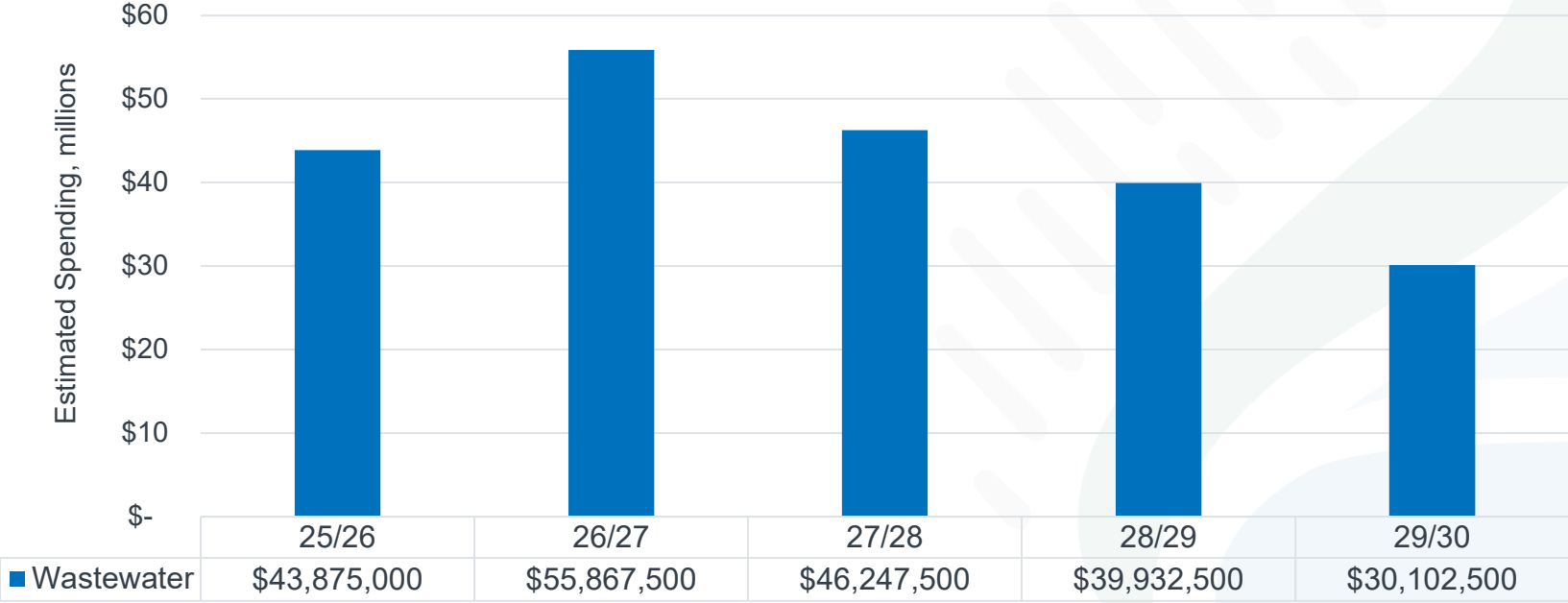
Created a new Project Detail Sheet Layout.

Fixed double counting of markups for the Kellogg Digester Project.



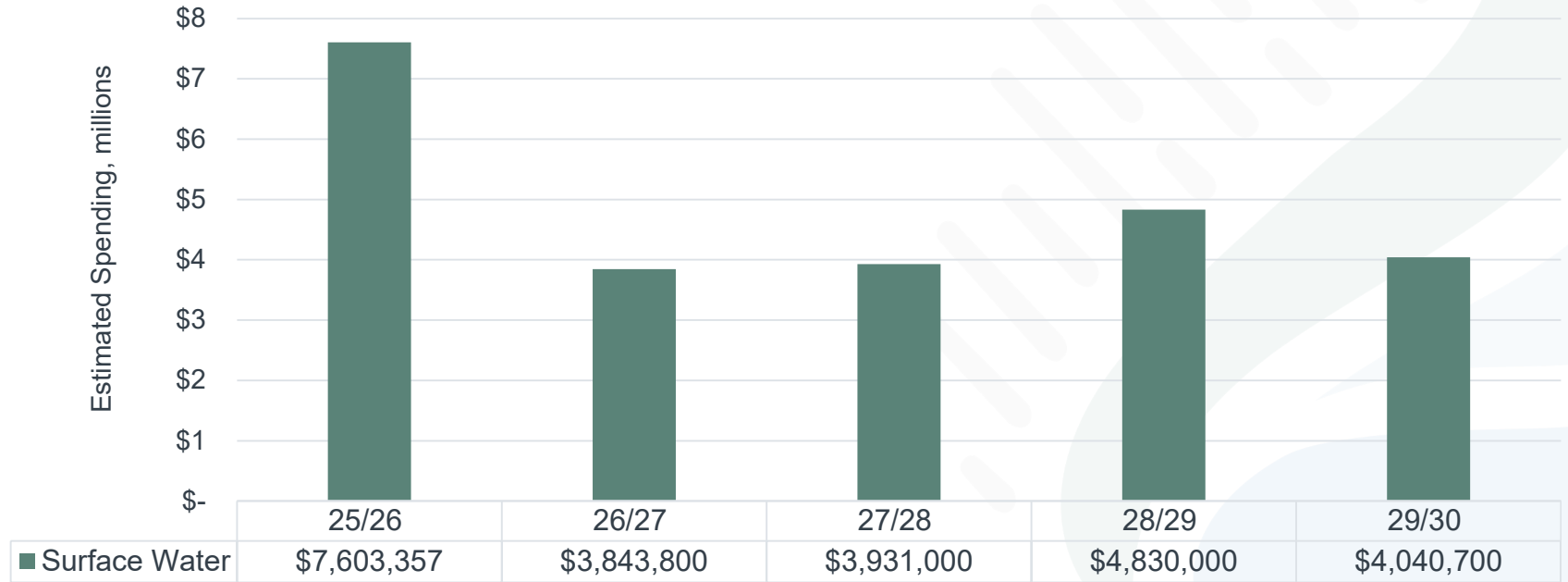
Wastewater CIP Projected Annual Spending

Water Environment Services
FY 25/26 - 29/30 CIP



Surface Water CIP Projected Annual Spending

Water Environment Services FY 25/26 - 29/30 CIP



Financial Planning and Rate Impact

Strategies:

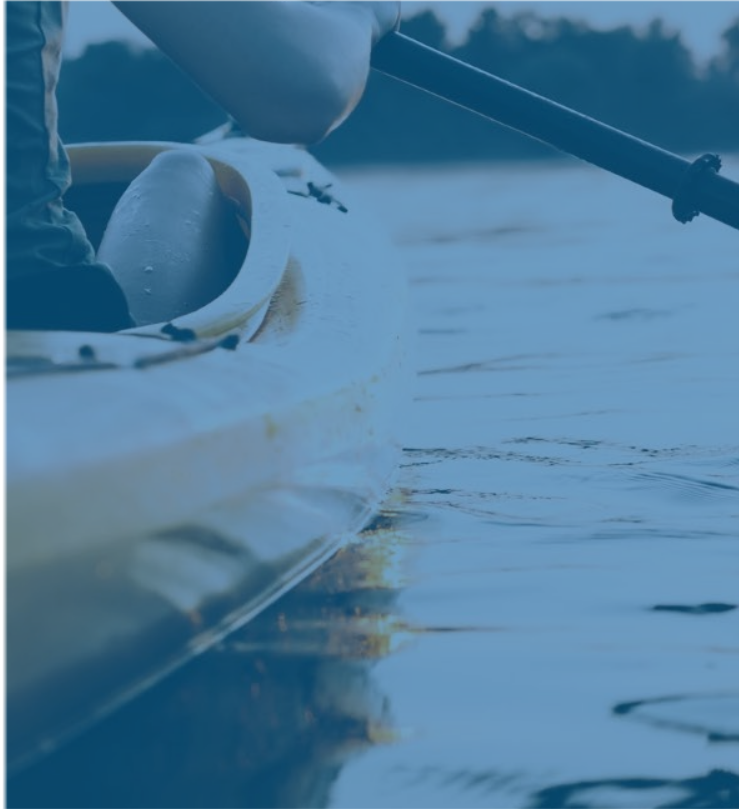
- Implement steady and predictable rate increases
- Limit annual increases in operating and maintenance costs
- Allocate existing construction reserves for capital financing
- Maintain target level of reserves
- Ensure financial health and resilience by maintaining a debt coverage ratio of at least 140% of annual debt service
- Utilize System Development Charges (SDCs) for eligible debt service payments
- Seek and secure external funding and grants



Financial Planning and Rate Impact

Planning Component	Proposed FY 25/26 – 29/30 CIP												
5-Year CIP	\$214.1 million Sewer / \$24.3 million Surface Water												
Economic Assumptions	~5% annual increase in O&M costs for 25/26 and 26/27; ~4.3% from 27/28 forward 3% Construction Index / 1% annual population growth												
Construction/SDC Reserves	Sewer – \$90.6 M / Surface Water – \$13.3 M												
Debt Financing and Assumptions	FY 26/27 30-Year Term, 3.5% Interest												
Funding Sources	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Category</th> <th>User Charges</th> <th>SDCs</th> <th>Debt Proceeds</th> </tr> </thead> <tbody> <tr> <td>Sewer</td> <td>47.2%</td> <td>15.3%</td> <td>37.5%</td> </tr> <tr> <td>Surface Water</td> <td>49.0%</td> <td>1.5%</td> <td>49.5%</td> </tr> </tbody> </table> <p style="text-align: center;"> ■ User Charges ■ SDCs ■ Debt Proceeds </p>	Category	User Charges	SDCs	Debt Proceeds	Sewer	47.2%	15.3%	37.5%	Surface Water	49.0%	1.5%	49.5%
Category	User Charges	SDCs	Debt Proceeds										
Sewer	47.2%	15.3%	37.5%										
Surface Water	49.0%	1.5%	49.5%										
Projected SDC Increases	Inflationary only												
Projected Annual Rate Increases	5%												

Summary and Next Steps



- FY 2025/26 – 2029/30 total Wastewater CIP of \$216 Million, Surface Water CIP of \$24.3 Million.
- Incorporated updates from WES AC input received.
- Motion of support requested.
 - The WES Advisory Committee recommends to the Board of County Commissioners, acting as the governing body of Water Environment Services, approval of the WES 2025/26-2029/30 Capital Improvement Plan, as presented.
- If motion of support received, CIP will be presented to the Board of County Commissioners for adoption in December or January.



Questions?

Jstallard@Clackamas.us
Eblue@Clackamas.us



Fiscal Years 2025/26 - 2029/30
CAPITAL IMPROVEMENT PLAN
DRAFT - 9/5/2024

Water Environment Services



CLACKAMAS
**WATER
ENVIRONMENT
SERVICES**



Clackamas Water Environment Services

Fiscal Years 2025/26 - 2029/30

Capital Improvement Plan

Board of Directors

Tootie Smith, Chair

Paul Savas, Commissioner

Martha Schrader, Commissioner

Mark Shull, Commissioner

Ben West, Commissioner

Gary Schmidt, District Administrator

Clackamas Water Environment Services Leadership Team

Greg Geist, Director

Ron Wierenga, Deputy Director

Jeff Stallard, Capital

Erin Blue, Financial Services

Matt House, Operations

Terrance Romaine, Environmental Services

Lauren Haney, Administration

Amanda Keller, Legal Counsel



CLACKAMAS

**WATER
ENVIRONMENT
SERVICES**

Clackamas Water Environment Services

Clackamas Water Environment Services (WES) produces clean water, protects water quality and recovers renewable resources. We do this by providing wastewater services, stormwater management, and environmental education. It is our job to protect public health and support the vitality of our communities, natural environment and economy.

WES lines of business and associated programs include the following:

Business Services

- Account Services
- Administrative Services
- Financial Management

Environmental Services

- Environmental Monitoring
- Permit Services
- Watershed Protection
- Resource Recovery

Operations

- Plant Operations and Maintenance
- Field Operations and Maintenance
- Asset Management

Capital

- Planning and Capital Delivery

Clackamas County Performance Clackamas

Performance Clackamas, the county strategic business plan focuses on five strategic priorities:

- **Build public trust through good government**
- **Grow a vibrant economy**
- **Build a strong infrastructure**
- **Ensure safe, healthy and secure communities**
- **Honor, utilize, promote and invest in our natural resources**

WES has developed strategic results specific to our business that align with the countywide strategic priorities. The Fiscal Year 2025/26 - 2029/30 (FY 25/26 - 29/30) Capital Improvement Plan (CIP) was developed to support WES in meeting our strategic results. The CIP puts forward a prioritized plan to maintain existing facilities, allow efficient, cost-effective operations and provide new infrastructure to protect human health and clean water, today and into the future.

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Appendix A

Sanitary Sewer Project Detail Sheets

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Surface Water Project Detail Sheets

CAPITAL IMPROVEMENT PROGRAM OVERVIEW

INTRODUCTION

The Water Environment Services Board of Directors adopts the annual budget for WES. The goal of the Capital Improvement Plan is to provide context and continuity for the budget and capital needs for the next five years.

A capital project is any physical asset acquired, constructed, financed, modified or replaced with a total capital cost of \$5,000 or more and a useful life of 1 year or more. All capital projects have a definitive beginning and end. All costs needed to acquire, construct, finance or modify a physical asset are included in the estimate of a capital project's total cost, including engineering and project implementation costs. Expenses must be directly related to and primarily benefit a single capital project to be considered project costs.

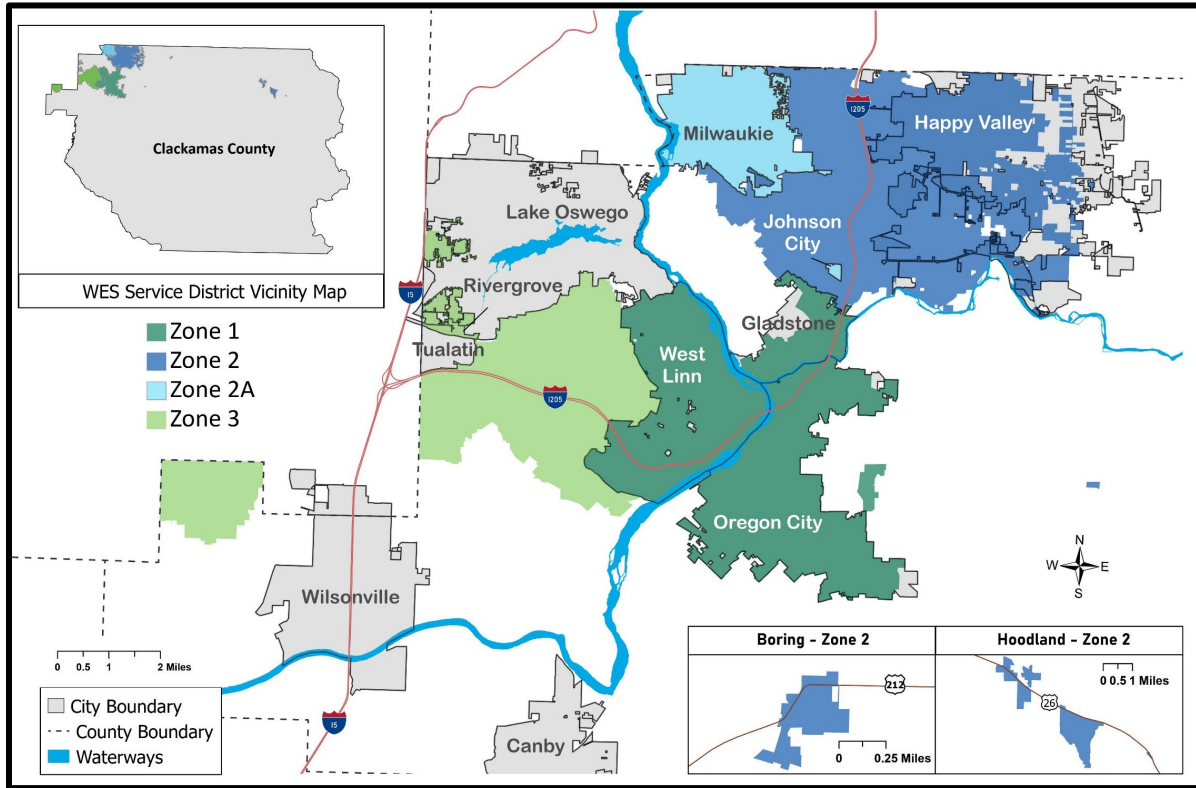
BACKGROUND

On behalf of our customers, WES operates and maintains more than 360 miles of sanitary sewer pipelines, interceptors and force mains, 23 wastewater pumping stations, five Water Resource Recovery Facilities (WRRFs), and the local collection system in Happy Valley and unincorporated areas within the service area. Each of the treatment facilities hold individual permits, four of which are National Pollutant Discharge Elimination System (NPDES) permits that allow wastewater that is treated and cleaned to be discharged to rivers in the state of Oregon. WES treats more than 7 billion gallons of wastewater per year and complies with all of the terms of its permits.

WES is also responsible for surface water management facilities. Although WES constructs a limited amount of surface water infrastructure, it operates the vast majority of public surface water infrastructure constructed with transportation systems and residential subdivisions. This includes hundreds of miles of storm pipelines, thousands of inlets, and over 300 water quality treatment facilities, in public right-of-way and on private property. State and federal water quality regulations require that the public surface water system be adequately inspected, maintained, expanded and repaired.

The WES service area is shown in Figure 1. The service area encompasses 65 square miles.

Figure 1. WES Service Area



RATE ZONE 1

Rate Zone 1 includes the Cities of Gladstone, Oregon City, West Linn and a small number of retail customers.

RATE ZONE 2 / 2A

Rate Zone 2 includes four separate, noncontiguous sewer service areas including the unincorporated areas of Clackamas County, the City of Happy Valley, the western edges of Damascus, the communities of Hoodland, Boring, and Fischer’s Forest Park, as well as a surface water management service area within the City of Happy Valley and in unincorporated Clackamas County. Rate Zone 2A includes the Cities of Milwaukie and Johnson City as wholesale customers.

RATE ZONE 3

Rate Zone 3 includes the City of Rivergrove and portions of unincorporated Clackamas County draining into the Tualatin River.

Sanitary Sewer and Wastewater Treatment

WES provides retail sanitary sewer services (administration, operation, and maintenance of the collection and conveyance systems including pipes and pump stations), to the cities of Happy Valley and Boring, to unincorporated portions of North Clackamas County, a portion of the former city of Damascus, the communities of the Highway 26 Hoodland Recreational Corridor including Wemme and Welches, Fischer's Forest Park near Redland and a small retail population outside of Oregon City. WES provides wholesale services (operation and maintenance of the regional collection system and WRRFs that treat and clean wastewater and return it to the rivers and streams) to the cities of Milwaukie, Johnson City, Oregon City, West Linn and Gladstone. Revenues derived from customer rates and development fees fund WES services. WES operates five wastewater treatment facilities: Tri-City WRRF, Kellogg Creek WRRF, Hoodland WRRF, Boring Treatment System and Fischer's Forest Park Treatment System.

Tri-City WRRF, located in Oregon City in operation since 1986, provides treatment for wastewater from the Zone 1 service area and for wastewater flow diverted from the Zone 2 service area, and then discharges effluent into the Willamette River. The liquid capacity of the treatment facility was expanded with a state-of-the-art membrane bioreactor system in 2011 to treat some wastewater diverted from the Zone 2 service area and is capable of producing effluent that meets Oregon's highest reclaimed water standards. The solids processing capacity of the facility was expanded in 2020. Digested sludge from the Kellogg Creek WRRF is also dewatered at the Tri-City WRRF until dewatering facilities are constructed at the Kellogg Creek WRRF.

Kellogg Creek WRRF, located in Milwaukie, began operation in 1974. Due to site constraints, the facility cannot expand as its Zone 2 and Zone 2A service areas grow. Between 2008 and 2012, WES spent \$124 million to construct an intertie pump station and pipeline to convey new wastewater flow to the Tri-City WRRF and expanded liquids handling capacity at the Tri-City WRRF. Currently, up to 12.5 million gallons per day (MGD) can be diverted from the Kellogg Creek WRRF Zone 2 service area to the Tri-City WRRF with the Intertie 2 Force Main and Pump Station Expansion Project underway to increase that diversion capacity to 30 MGD.

Hoodland WRRF, located in Welches, began operation in 1982 and serves the Highway 26 Hoodland Recreational Corridor including Wemme and Welches. The service area includes six pump stations, 22 miles of pipeline and serves a population of approximately 4,000. The facility provides secondary treatment with a capacity of 0.9 MGD and discharges effluent to the Sandy River.

Boring Treatment Facility, serves 60 households and businesses within the Community of Boring began operation in 1986. The facility consists of lagoons and a sand filter to provide tertiary treatment for up to 20,000 gallons per day.

Fischer's Forest Park Treatment Facility, began operation in 1971. It is the smallest of the treatment facilities serving 26 single-family homes in a subdivision in the Redland area. Unlike the other WES treatment facilities, this facility does not discharge to a river, but has a permitted sub-surface discharge via a drip distribution system.

Surface Water

WES performs surface and stormwater management for the purpose of providing nonpoint source pollution controls to meet state and federal regulations. This includes the construction of capital improvements to address surface water quality and quantity, conducting basin analyses and other studies to locate and prioritize necessary capital improvements, and to engage in non-structural solutions including, but not limited to; maintenance of surface water facilities, public education, water quality monitoring programs, and preparation of intergovernmental agreements for a regional approach to surface water quality and quantity matters.

WES administers a surface water program to protect surface water and groundwater resources from polluted storm runoff, and to coordinate compliance with state and federal water pollution regulations and remediation plans. Primary responsibilities of this program include planning and building stormwater control facilities, water quality monitoring of stormwater runoff and streams, public education and outreach on watershed health, development and enforcement of water quality regulations, coordination with other municipalities and maintenance of the public stormwater systems within the WES service area.

As the service area's population continues to increase, WES is committed to provide responsible stormwater management to keep waterways clean for people, fish, and wildlife. Many past drainage and stormwater management practices and regulations have proven inadequate to prevent runoff impacts to streams and groundwater and need rehabilitation or enhancements. Thousands of developed acres in Clackamas County currently contribute to problems in streams, lakes, and rivers. Expanding and improving the stormwater management infrastructure are the primary means of controlling runoff from areas of new growth and for improving problems caused by uncontrolled runoff from existing developed areas.

Impacts of stormwater runoff on surface water are well-documented and widespread. In Clackamas County, runoff contributes to impaired stream health, diminished fish populations and degraded habitat conditions. These impacts have been observed in the WES Watershed Action Plans, in various environmental studies over the past 10 years and documented in Oregon's list of impaired water bodies.

Stormwater runoff impacts water bodies in two critical ways; water quality and water quantity. Stormwater runoff from roads, fields, rooftops, parking lots, and yards carries a variety of pollutants deposited by everyday activities. Fertilizers, oil, grease, heavy metals, pesticides, chemicals, soil, and animal waste can make their way to water bodies via stormwater runoff. These pollutants degrade stream water quality, posing risks to both human health and stream life. Hard surfaces and cleared areas increase the amount and speed of runoff flowing into streams. The result is often streams that have too much flow during storms and too little flow during non-storm periods. Left unchecked, this leads to increased erosion during storms, decreased habitat quality, and negative impacts to groundwater recharge, stream life, and overall water quality. Keeping existing stormwater facilities in good repair, updating old facilities, constructing new projects to remove pollutants or slow down runoff, planting trees, preserving intact forested or streamside habitats and rehabilitating stream channels are ways WES and our performance partners can help reduce the impacts of stormwater runoff. These activities and projects are the WES Stormwater Capital Program.

Index of Capital Funds

Capital expenditures are attributed to one or more capital funds depending on the purpose and location of the asset.

Fund	Fund Title	Description
632	WES Sanitary Sewer System Development Charge (SDC) Fund	Provides for construction of sanitary sewer projects attributable to growth and therefore eligible for SDC funding.
639	WES Sanitary Sewer Construction Fund	Provides for construction of sanitary sewer projects financed either by bond proceeds, grants, operating fund revenues (e.g. monthly service rate revenue) or other resources.
642	WES Surface Water System Development Charge Fund	Provides for construction of surface water projects attributable to growth and therefore eligible for SDC funding.
649	WES Surface Water Construction Fund	Provides for construction of surface water projects financed either by bond proceeds, grants, operating fund revenues (e.g. monthly service rate revenue) or other resources.

Funding for capital projects that benefit both WES's Sanitary Sewer/Wastewater Treatment and Surface Water programs is proportionately split between the Sanitary Sewer and Surface Water Construction and/or SDC funds based on the relative benefit to each program. Projects with shared Sanitary Sewer and Surface Water funding include improvements to, or rehabilitation of, shared facilities (e.g., Tri-City Administration Building and Water Quality Lab), as well as shared equipment.

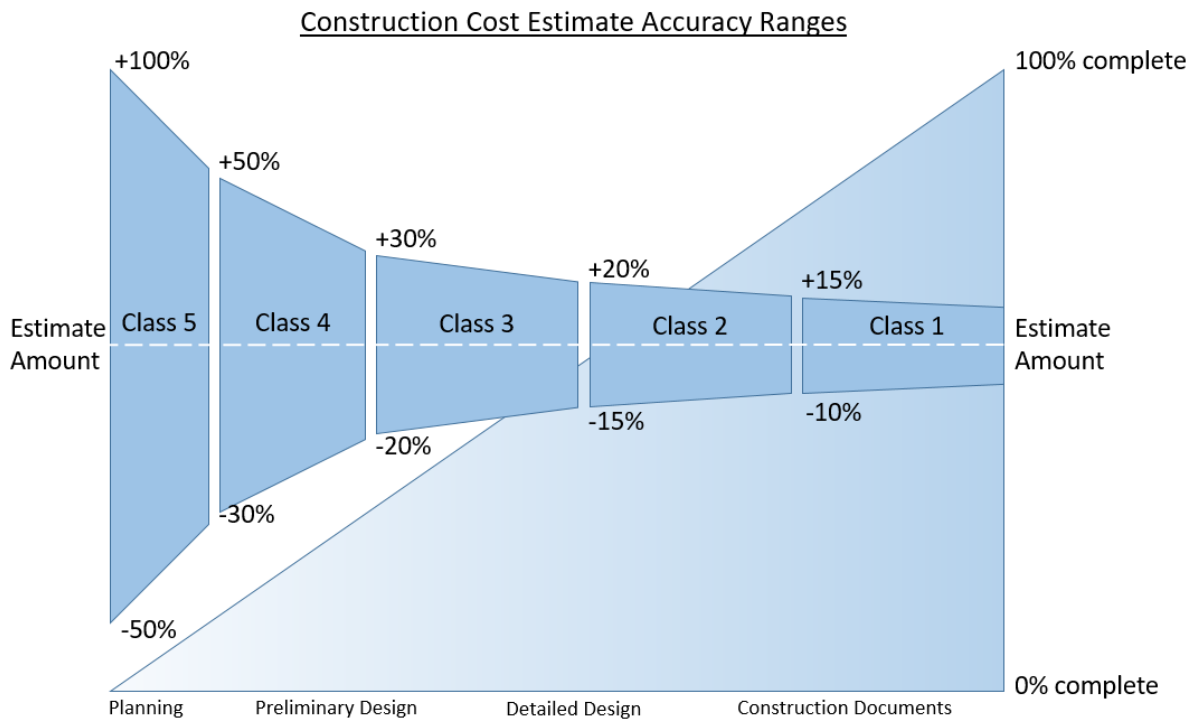
WES utilizes a cost-pool model for fleet management in which the capital expenditures for vehicles are initially attributed to the Sanitary Sewer Construction Fund and the full annual costs for those vehicles, including asset replacement costs, are charged to the Sanitary Sewer or Surface Water programs based on each program's use of the vehicles.

Project Cost Updates

Project cost estimates change over time due to inflation and during the design phase as the details of the project are refined. Over the last several years, the economy has experienced historic inflation that had a significant impact on project delivery costs. The costs presented in this CIP plan are total project costs that have been escalated to the Engineering News Record (ENR) Construction Cost Index of July 2024.

In addition to escalating the project costs to the construction index, this capital plan is utilizing the most recent costs estimates for each project. WES uses a structured approach to estimating costs for capital improvements and infrastructure investments, utilizing different estimate classes to align with the various stages of project development.

In the initial phases of a project 5-year capital plan, a Class 5 estimate might be employed to outline broad budgetary needs. This early-stage estimate helps WES identify potential financial requirements and prioritize projects but comes with a broader range of uncertainty. As projects move through delivery and become more defined, more detailed estimates are calculated with more certainty. The below figure identifies estimate classifications, range of uncertainty, and associated project phase. The Project Detail sheets for each project identify the Class of the most recent estimate WES has developed for that project.



SANITARY SEWER PROJECTS

SANITARY SEWER PROJECT SUMMARY

WES has a wastewater comprehensive plan to set forth capital needs for the next 20 years, consolidating recommendations from the following planning efforts: Storm System Master Plan (2023), Willamette Facility Plan (2022), Boring Facility Plan (2020), Sanitary Sewer Master Plan (2019) and the Hoodland Master Plan (2017). Future five-year CIPs will reflect the results of those plans. The FY 25/26 - FY 29/30 CIP was developed and projects prioritized as a result of coordination between the capital planning team and operations and maintenance staff.

SANITARY SEWER CIP

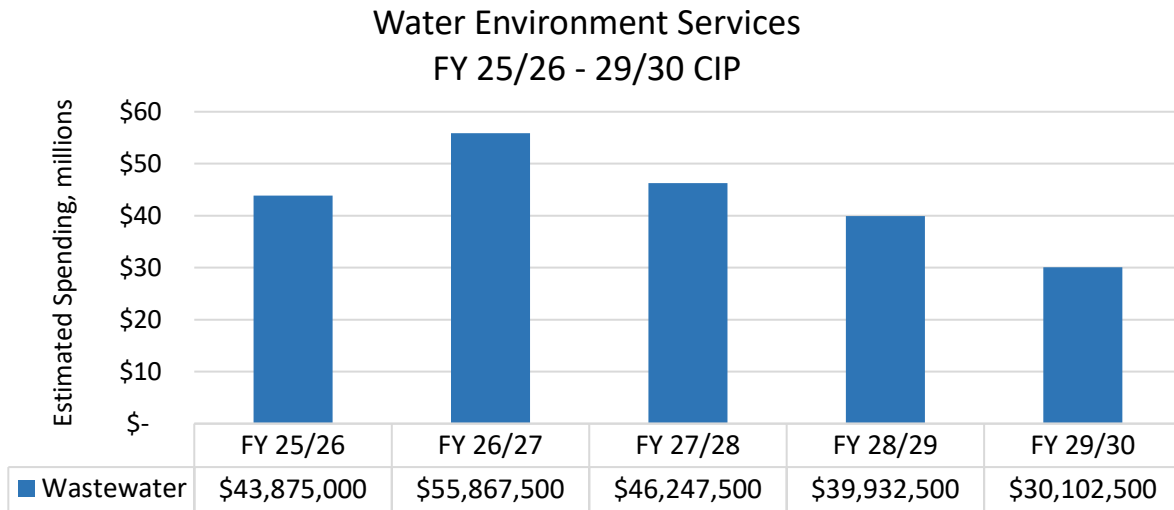
Sanitary sewer projects are organized according to their location and/or function. Project types are Treatment (Tri-City, Kellogg Creek, Hoodland, Boring, Fischer’s Forest Park), Collection System, Fleet, Water Quality Lab (WQL), Asset Management and Pump Stations. Collection System projects include those for facilities designed, owned and maintained by WES. Asset Management projects include itemizing and characterizing the condition of our assets and prioritizing replacement needs.

Categories of projects and their corresponding projected costs for the next five fiscal years are shown in Table 1 and Figure 2.

Table 1. Sanitary Sewer Capital Spending by Project Type/Location

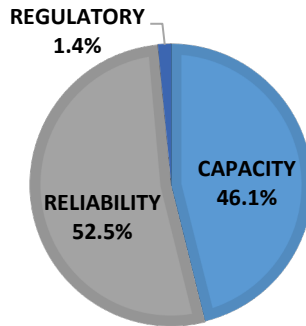
Project Type		Capital Spending, \$ Million					5-Year Total
		25/26	26/27	27/28	28/29	29/30	
Tri-City WRRF		\$ 15.90	\$ 10.90	\$ 13.27	\$ 16.35	\$ 18.29	\$ 74.71
Water Quality Lab		1.28	0.00	0.42	1.27	0.00	2.97
Kellogg Creek WRRF		2.75	1.75	1.75	1.00	3.00	10.25
Hoodland WRRF		0.30	0.00	0.00	0.00	0.50	0.80
Boring Treatment System		0.00	0.00	0.00	0.00	0.00	0.00
Fischer Forest Park Treatment System		0.00	0.00	0.00	0.00	0.00	0.00
Collection System		20.45	40.71	28.15	18.60	5.80	113.71
Recurring Projects	Flow Metering Program	0.00	0.00	0.05	0.00	0.00	0.05
	Pipe/Manhole R&R	1.50	1.00	1.00	1.00	1.00	5.50
	Pump Stations	0.10	0.10	0.10	0.10	0.10	0.50
	Development Review	0.10	0.10	0.10	0.10	0.10	0.50
	Fleet	0.70	0.47	0.61	0.67	0.51	2.96
	WQL Equipment	0.00	0.04	0.00	0.04	0.00	0.08
	WRRF: Small Projects	0.80	0.80	0.80	0.80	0.80	4.00
Total		\$ 43.88	\$ 55.87	\$ 46.25	\$ 39.93	\$ 30.10	\$ 216.03

Figure 2. Sanitary Sewer Capital Spending (\$ Million)



Some CIP projects will provide capacity for growth and are eligible to be funded, in whole or part, by system development charges (SDCs). Some projects are required to maintain the reliability and operability of WES’s infrastructure, and are not funded by SDC dollars. Figure 3 shows the breakdown of the CIP by project driver. SDC-eligible project expenses may initially be funded with debt proceeds from the construction fund and the principal and interest on the debt subsequently paid from the SDC fund.

Figure 3. Sanitary Sewer Capital Spending Breakdown by Project Driver



FISCAL YEAR 2025-26 MAJOR PROJECTS

Of the \$43.9 million in FY 25/26 planned capital spending, \$22.7 million is expected to be spent on the following projects:

Tri-City WRRF Outfall Project - \$5.5 million (\$64 million total)

Projected flows to the Tri-City WRRF were developed as part of the Sanitary Sewer Master Plan (SSMP) and are expected to be approximately 176 MGD under build-out conditions if inflow and infiltration (I/I) reductions recommended in the SSMP are achieved. The capacity of the existing Tri-City WRRF outfall is

approximately 75 MGD and is expected to be exceeded as flows increase as projected in the SSMP. The capacity of the new outfall will be increased, and new location will provide improved mixing, allowing sufficient capacity for decades to come. At buildout, peak wet weather capacity will be met using both the new and existing outfall. The project is expected to be completed in 2026.

Intertie 2 Pump Station and 30-inch Force Main Project - \$9.0 million (\$23 million total)

The Intertie 2 Pump Station diverts flow from the Kellogg Creek WRRF drainage basin to the Tri-City WRRF. The pump station was constructed in 2012 and is now at capacity. The station was constructed with plans to add a pump to increase capacity. The 30-inch force main from the pump station to Tri-City WRRF was partially constructed during the original construction of the pump station and force main. The purpose of this project is to construct the remaining segments of the 30-inch force main to increase the pumping capacity of the Intertie 2 Pump station to accommodate future peak flows as identified in the SSMP. The force main and pump station upgrades will be completed in 2027, with one more expansion of this pump station planned for 2035.

Willamette Pump Station and Force Main Project - \$3.0 million (\$38 million total)

The Willamette Pump Station and Force Main were constructed in 1986 and convey sanitary sewer flows from areas west of the Willamette River, including portions of southwest West Linn, to the Tri-City WRRF. The pump station and force main were analyzed as part of the SSMP, and it was determined that, in addition to targeted I/I reduction upstream of the pump station, a new pump station and force main are necessary to increase capacity to meet future wet-weather flows. The portion of the force main crossing the Willamette River is being constructed as part of the Oregon Department of Transportation (ODOT) Abernethy Bridge project. Design of the remaining force main and a new pump station is now underway with the entire project to be brought online by 2030.

Clackamas Area Interceptor Improvements Project - \$2.5 million (\$63.7 million total)

The SSMP identified the Clackamas Area Interceptor system upstream of the Intertie 2 Pump Station, which serves Clackamas County and portions of the City of Happy Valley, is nearing its peak wet weather capacity and needing to be upsized. The Clackamas Area Interceptor Project will advance the conceptual design developed from the SSMP through final design and construction. The project includes approximately five miles of capacity upgrades along the Clackamas Interceptor, reconfiguring the confluence of the Clackamas, Mt. Talbert, and Lower Phillips Interceptors, and capacity upgrades in the portion of the Mt. Scott Interceptor upstream of the Intertie 2 Pump Station. This project is being designed as a single project to ensure the segments are coordinated, but will be constructed over the next 10 years using multiple bid packages.

Regional Infiltration/Inflow (I/I) Control Cost Share - \$2.7 million (\$13.7 million 5-year total)

The WES sanitary sewer capital plan is based on a 65% reduction of I/I in 19 key sewer basins. To help achieve this reduction, WES has Intergovernmental Agreements (IGAs) with five partner cities to provide 33% funding for approved I/I reduction projects. At this time, projects within the following member cities have been approved for funding through the IGAs: Oregon City, Gladstone, and Milwaukie.

ACTIVE PROJECT PROGRESS

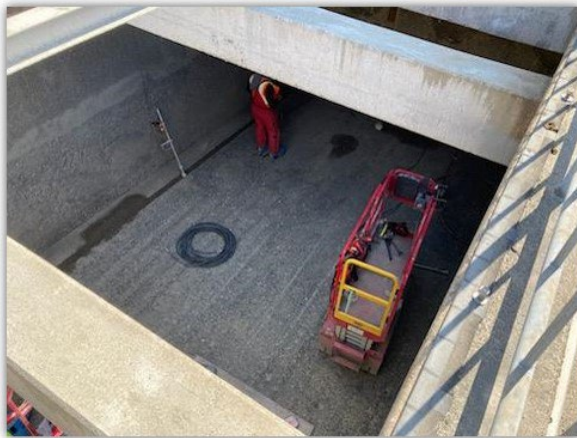
WES staff is continuously looking at future needs. The WES capital team is also concurrently managing the design and construction of numerous projects. Below are several highlights of our work:

Multi Pump Station Improvements Project - Estimated Spent to Date \$6.3 million (\$12 million total)

During SSMP efforts, a condition assessment of the 23 pump stations that WES owns and operates was conducted. The outcome of this assessment was a recommendation to rehabilitate a large number of pump stations. The rehabilitation of each station is unique, so this work is delivered using multiple bid packages. The work generally includes condition assessment related to pumps, wet well concrete and coatings, Variable Frequency Drive (VFD), controls and emergency power. This work will be completed in 2027 and is addressing condition issues at 11 different pump stations.



Tri City Primary Clarifier Rehabilitation - Estimated Spent to Date \$6.3 million (\$14.4 million total)



The Primary Clarifier Condition Assessment performed in 2017 determined that a number of assets at the primary clarifiers were in poor or very poor condition, requiring rehabilitation of the concrete basins, gates, sludge collectors, and scum skimmers. Primary treatment at the Tri-City WRRF is provided by six rectangular primary clarifiers. The project includes rehabilitation of corroded concrete, full mechanism replacement, and miscellaneous mechanical and electrical improvements to the Primary Building situated on top of a portion of the basins. This project will be

completed in summer of 2025.

Tri-City WRRF Outfall Project - Estimated Spent to Date \$14.8 million (\$64 million total)

Work began on a project to build a new outfall for the Tri-City WRRF in 2019. The initial phase of this project included a routing study, significant environmental permitting, and detailed design development. This project is being delivered using a progressive design build approach and construction started in February of 2024. The new outfall will be completed and put in service in early 2026.



SANITARY SEWER PROJECT LIST BY PROJECT AREA

The following table summarizes funded projects listed in the CIP by project area. Individual project detail sheets for all projects are included in Appendix A. As a part of WES’s annual budget and CIP development process, project planning estimates are updated to reflect the most current information and market conditions. Total Project Costs include estimated project expenditures through the end of FY 24/25 and projected spending beyond the next five years, which may be subject to change. Subtotals by project area include spending only for projects included in the FY 25/26 – 29/30 CIP, and do not include projects with spending anticipated to commence in FY 29/30 or later.

TABLE 2. SEWER CAPITAL PROJECT LIST

PROJECT DESCRIPTION	Projected					5-Year CIP Total	Total Project Cost*	SDC Eligibility
	2025-26	2026-27	2027-28	2028-29	2029-30			
Tri-City Water Resource Recovery Facility								
Outfall	\$ 5,500,000	\$ -	\$ -	\$ -	\$ -	\$ 5,500,000	\$ 64,000,000	22%
Wet Weather Expansion		500,000	2,500,000	13,000,000	16,000,000	32,000,000	58,000,000	50%
Influent Pump Station (IPS) Expansion	4,500,000	6,100,000	6,000,000			16,600,000	18,350,000	50%
Primary Clarifier Rehabilitation	4,000,000					4,000,000	14,350,000	
Rossman Landfill Mitigation Project	500,000	3,500,000	3,500,000			7,500,000	7,500,000	100%
Administration Building Remodel (15% split with SW)			212,500	1,700,000	1,487,500	3,400,000	3,400,000	
Aeration Basin Improvements	400,000	800,000	800,000	800,000	800,000	3,600,000	4,000,000	
Headworks Rehabilitation	1,000,000					1,000,000	3,200,000	
Maintenance Building Relocation (15% split with SW)			255,000	850,000		1,105,000	1,105,000	
Rehabilitate Chlorine Contact Basins and Replace Gates						-	1,080,000	
Subtotal	15,900,000	10,900,000	13,267,500	16,350,000	18,287,500	74,705,000	174,985,000	
Water Quality Laboratory								
Lab Remodel (15% Split with SW)	1,275,000		425,000	1,275,000		2,975,000	3,400,000	
Subtotal	1,275,000	-	425,000	1,275,000	-	2,975,000	3,400,000	
Kellogg Creek Water Resource Recovery Facility								
Digester Improvements and Dewatering				500,000	3,000,000	3,500,000	27,800,000	
Administration Building Remodel	2,000,000					2,000,000	4,200,000	
UV Replacement	750,000	1,200,000				1,950,000	2,250,000	
Headworks and Grit Loading Improvements		250,000	1,250,000			1,500,000	1,500,000	
Primary Clarifier Rehabilitation		300,000	500,000	500,000		1,300,000	1,300,000	
Subtotal	2,750,000	1,750,000	1,750,000	1,000,000	3,000,000	10,250,000	37,050,000	
Hoodland Water Resource Recovery Facility								
Secondary Treatment Upgrade					500,000	500,000	10,500,000	50%
Facility Plan	300,000					300,000	300,000	100%
Subtotal	300,000	-	-	-	500,000	800,000	10,800,000	
Boring Water Resource Recovery Facility								
Upgrades						-	10,230,000	
Subtotal	-	-	-	-	-	-	10,230,000	

*Total Project Costs are rounded to nearest \$10,000, and include projected spending after FY 2029-30 and estimated spent-to-date through the end of FY 2024-25.

TABLE 2. SEWER CAPITAL PROJECT LIST

PROJECT DESCRIPTION	Projected					5-Year CIP Total	Total Project Cost*	SDC Eligibility
	2025-26	2026-27	2027-28	2028-29	2029-30			
Collection System								
Clackamas Area Interceptor Improvements	2,500,000	12,500,000	14,000,000	4,000,000	500,000	33,500,000	63,660,000	50%
Willamette Pump Station and Force Main Capacity	3,000,000	11,000,000	3,000,000	8,000,000	3,000,000	28,000,000	38,090,000	50%
Inflow & Infiltration (I&I) Reduction Program	2,700,000	3,975,000	3,000,000	2,000,000	2,000,000	13,675,000	N/A	100%
Intertie 2 Pump Station Expansion and 30-inch Force Main	9,000,000	4,000,000				13,000,000	23,060,000	50%
Rock Creek Interceptor Extension	1,000,000	5,050,000	5,050,000			11,100,000	12,190,000	100%
Multiple Pump Station Upgrades	1,300,000	2,000,000				3,300,000	12,010,000	
Timberline Rim and Sandy River Lane Pump Station with Force Main			500,000	2,000,000		2,500,000	8,500,000	
Linwood Ave Pump Station and Force Main	600,000					600,000	6,800,000	100%
Bolton Force Main Evaluation and Replacement		1,180,000	2,600,000	2,600,000		6,380,000	6,500,000	
Oregon City Interceptor Rehabilitation					300,000	300,000	1,800,000	50%
Clackamas Force Main 10-inch Upsize	100,000	1,000,000				1,100,000	1,250,000	50%
Mt. Talbert Realignment	250,000					250,000	900,000	
Subtotal	20,450,000	40,705,000	28,150,000	18,600,000	5,800,000	113,705,000	174,760,000	
Recurring / Programmatic Capital Project Costs								
Collection System: Permanent Flow Metering Program			50,000			50,000		
Collection System: Pipe and Manhole Rehabilitation and Replacement	1,500,000	1,000,000	1,000,000	1,000,000	1,000,000	5,500,000		50%
Collection System: Pump Station Improvements	100,000	100,000	100,000	100,000	100,000	500,000		
Collection System: Developer-Installed Assets	100,000	100,000	100,000	100,000	100,000	500,000	N/A	
Fleet: Vehicle Replacement	210,000	260,000	605,000	165,000	515,000	1,755,000		
Fleet: Heavy Equipment	490,000	210,000		500,000		1,200,000		
Water Quality Lab: Equipment (15% split with SW)		42,500		42,500		85,000		
Water Resource Recovery Facilities: Small Projects	800,000	800,000	800,000	800,000	800,000	4,000,000		
Subtotal	3,200,000	2,512,500	2,655,000	2,707,500	2,515,000	13,590,000		
TOTAL - ALL SEWER PROJECTS	\$ 43,875,000	\$ 55,867,500	\$ 46,247,500	\$ 39,932,500	\$ 30,102,500	\$ 216,025,000	\$ 411,225,000	

*Total Project Costs are rounded to nearest \$10,000, and include projected spending after FY 2029-30 and estimated spent-to-date through the end of FY 2024-25.

SURFACE WATER PROJECTS

SURFACE WATER SUMMARY

The Policy for the stormwater capital program is to:

- Meet the Phase 1 Municipal Stormwater Permit requirements through stormwater capital planning and capital construction.

WES's goals for stormwater capital projects include:

- Protect and enhance streams and wetlands through planning and constructing modifications to the stormwater infrastructure.
- Minimize the degradation of receiving waters from impacts attributable to stormwater runoff in existing developed areas.
- Maximize benefits of public land where appropriate by providing multiple uses including recreation, and by leveraging funding from multiple sources.
- Provide stormwater facilities for future development and redevelopment.

In support of WES policies and goals, the capital planning process strives to:

- Prioritize projects with the greatest potential to support multiple programs and goals, including local and regional fish recovery, habitat enhancement and water cleanup goals.
- Ensure a reliable scientific and engineering basis for projects.
- Establish that each project in the plan is needed, feasible and cost-effective.
- Focus limited resources on the most pressing concerns and the most efficient solutions.
- Incorporate environmental benefits into needed infrastructure repair projects.
- Maintain a sufficient list of potential projects to enable replacement of any projects that become infeasible, and to take advantage of funding opportunities.

Prioritization

WES recently completed the Storm System Master Plan (SSMP). The SSMP provides a flexible framework for storm system infrastructure operations, maintenance, and expansion to improve the quality of surface water and maintain infrastructure function in the WES service area. The SSMP provides short- and medium-term recommendations for capital improvements and programmatic system improvements. The recommended projects and programs have been prioritized and initial cost estimates have been developed. The resulting priorities and costs were used to create a 10-year construction plan to sequence implementation and to equalize annual expenditures.

The plan includes a prioritization methodology and stormwater toolkit. These items allow WES to adapt the implementation plan to changing circumstances, identify and evaluate future storm system needs, and develop project concepts to address future needs. The SSMP recommendations were compared against each other, WES's goals, and anticipated available funding to determine relative priority.

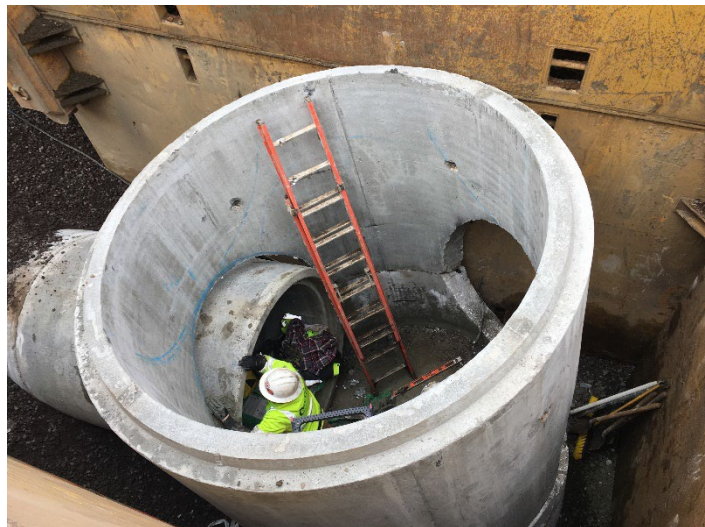
Surface water capital projects come in many shapes and sizes, which are grouped into six basic types for evaluation and prioritization purposes:

- Capital Repairs
- Small Drainage
- Stormwater Pond Repair/Rehabilitation
- Water Quality Retrofits
- Underground Injection Control (UIC) Decommissioning/Retrofits
- Restoration and Property Acquisition

PROJECT TYPES

Capital Repairs

Capital repair projects are stormwater facility repairs that substantially extend the life of the facility. Repairs of this kind are required under the municipal stormwater permit; however, due to the often-high costs associated with repair work, the permit does not set a time limit for completion. Typical repair activities include replacing pipes and flow control structures, removing large amounts of accumulated sediment or vegetation, addressing drainage problems and replacing retaining walls or access roads. Repairing and maintaining existing infrastructure is a



priority. Routine inspection of WES owned or operated stormwater facilities identifies repair needs. Given regulatory requirements and funding constraints, WES intends to address as many of the existing list of repair projects as feasible.

The SSMP identified and prioritized 10 capital repair projects. The actual implementation sequence will depend on factors such as financial constraints and partnership opportunities.

Small Drainage

Nuisance issues in the stormwater system are common and expected. They include blockages of small pipes by roots, degradation of small pipes, and minor flooding due to clogged or degraded inlets or missing small pipes. Minor repairs and upgrades to the storm system exceed routine maintenance requirements and are an important part of proper asset management. Projects correcting nuisance issues and estimated to cost less than \$100,000 each are grouped together into the Small Drainage Program. The projects will improve drainage issues when flooding is caused by WES's stormwater infrastructure and would support WES's goal of proactively addressing performance deficiencies or enhancements and decreasing the number of customer service requests.

The Small Drainage Program is intended to provide steady annual funding so that WES can both reactively and proactively address small flooding and drainage issues in a timely manner. Without this program, damage to roadways or public and private property could result, and public complaints could rise.

Project types within this program include new birdcage inlets and manholes, root removal/pipe lining, and small pipe conveyance.

Stormwater Pond Repair and Rehabilitation

WES owns or operates 620 vegetated stormwater ponds that provide the critical function of reducing pollutants in stormwater runoff and/or controlling flows prior to discharge to a natural drainage, wetland, stream, or river. The Stormwater Pond Repair and Rehabilitation Program will provide a clear budget line for required repair of these assets. Rehabilitation of a stormwater pond typically includes removal of sediment and invasive species, regrading edges, cleaning orifices and pipes and other related activities. Stormwater pond repair can include several activities or types of work. In some cases, hard features such as weirs, orifices, inlets, pipes, or other parts of the system may need to be replaced. Also, maintenance access to the ponds may need repair to allow proper equipment near the site or allow field staff to work near the site safely.

Water Quality Retrofits

The Water Quality Retrofit Program will add water quality treatment capacity in existing developed areas. Water quality retrofits generally include new facilities in unserved areas or enhancements which add or increase water quality treatment within existing storm infrastructure. The focus is on areas with no treatment, followed by those with outdated treatment facilities. Enhancements of existing facilities could include installation of cartridge filter systems, conversion of swales to rain gardens or wet ponds, and other improvements to stormwater facilities or conveyance systems where water quality treatment is either inadequate or can be significantly improved.

Water quality retrofit projects are prioritized based on the severity of the project need and the value they provide. Retrofit projects help meet WES' NPDES permit requirements, support water quality goals, and support WES' goals to be good stewards of the environment.

Underground Injection Control (UIC) Decommissioning and Retrofits

UICs are systems that place stormwater below the ground, the most common being drywells. UICs for stormwater are most commonly used where connections to the storm system infrastructure are not available. Decommissioning or retrofitting UICs is necessary where the system is a known threat to groundwater quality. Under state regulatory requirements, WES has identified 10 UICs with risk of polluting groundwater. Decommissioning a UIC entails filling the vault with concrete and removing the manhole cover. Retrofitting a UIC entails filling it with one to two feet of concrete so that the total depth is a greater distance from seasonal high groundwater levels. It could also entail installing low impact development (LID) practices upstream of the UIC inlet to treat the runoff before it enters the UIC.

The Districts' obligations to retrofit failing or at-risk facilities is site-specific and situational. Some UIC retrofit projects may also satisfy municipal stormwater permit requirements for the retrofits strategy. UIC retrofits are prioritized based on value and the results of a risk analysis.

Restoration and Property Acquisition



WES enhances public and private properties with native vegetation and trees. These projects maximize the ecological and stormwater benefits of the properties, supporting numerous local and regional environmental goals. Within this program, restoration-type projects are organized into four main categories: in-stream restoration, property acquisition, riparian vegetation, and culvert replacement or repair.

In-stream habitat improvement projects typically include channel enhancements or stabilization, floodplain reconnections or culvert/fish barrier removal. It also includes tree planting in areas where it supports regulatory compliance.

Occasionally, WES purchases sites with existing high-quality habitat along streams, in wetlands, or in forested upland areas. Preservation of these areas provides significant long-term watershed benefits, including stormwater control. Property acquisitions are prioritized and pursued as opportunities are available. Selection and prioritization of property acquisitions is coordinated through various performance partners including the WES sanitary sewer utilities, parks and open space programs, and watershed councils.

Revegetation of streamside properties improves habitat by increasing stream shading and reducing water temperatures. These projects maximize the ecological and stormwater benefits of the properties, supporting numerous local and regional environmental goals, including regulatory compliance in some areas. Tree planting projects provide stormwater benefits that often qualify for permit required controls, so they may be included in stormwater capital plans; however, these projects represent only a subset of the overall restoration program.

Culvert replacement or repair can re-introduce fish habitat that had been previously cut off due to culverts that prevented passage. The program evaluates and prioritizes culvert replacements or repair where there is a clear nexus with the stormwater program and opportunity for stream restoration.

SURFACE WATER CIP

Categories of projects and their corresponding projected costs for the next five fiscal years are shown in the following table. Costs shown are for funded projects; unfunded projects are not included. See project detail sheets in Appendix B for more information.

Table 3. Surface Water Capital Spending by Project Type/Location

Project Type		Capital Spending, \$ Million					5-Year Total
		25/26	26/27	27/28	28/29	29/30	
SW Capital Projects		\$ 6.02	\$ 2.32	\$ 2.09	\$ 2.46	\$ 2.14	\$ 15.03
Tri-City WRRF		0.00	0.00	0.08	0.45	0.26	0.79
Water Quality Lab		0.23	0.00	0.08	0.23	0.00	0.54
Recurring Projects	Restoration And Property Acquisition	0.65	0.65	0.82	0.82	0.83	3.77
	Stormwater Pond Repair and Rehabilitation Program	0.41	0.41	0.41	0.41	0.41	2.05
	Water Quality Retrofit Program	0.10	0.20	0.20	0.20	0.15	0.85
	Small Drainage Project Program	0.10	0.10	0.10	0.10	0.10	0.50
	Emergency Repairs	0.10	0.10	0.10	0.10	0.10	0.50
	UIC Decommissioning / Retrofit Program	0.00	0.05	0.05	0.05	0.05	0.20
	WQL – Equipment	0.00	0.01	0.00	0.01	0.00	0.02
Total		\$ 7.61	\$ 3.84	\$ 3.93	\$ 4.83	\$ 4.04	\$ 24.25

SURFACE WATER PROJECT LIST

The following table summarizes funded Stormwater projects listed in the CIP. Individual project detail sheets for all projects are included in Appendix B. As a part of WES’s annual budget and CIP development process, project planning estimates are updated to reflect the most current information and market conditions. Total Project Costs include estimated project expenditures through the end of FY 24/25 and projected spending beyond the next five years, which may be subject to change. Subtotals in the tables below include spending only for projects included in the FY 25/26 – 29/30 CIP, and do not include projects with spending anticipated to commence in FY 29/30 or later.

TABLE 4. STORMWATER CAPITAL PROJECT LIST

PROJECT DESCRIPTION	Projected					5-Year CIP Total	Total Project Cost*	SDC Eligibility
	2025-26	2026-27	2027-28	2028-29	2029-30			
Stormwater Capital Projects								
3-Creeks Water Quality Project	\$ 3,811,357	\$ 40,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 3,911,357	\$ 5,626,000	
Rose Creek New Detention Pond and Instream Restoration	-	349,000	1,522,000	1,522,000	-	3,393,000	3,393,000	
SE Wildlife Estates Dr Ditch Inlet and Upstream Detention	306,000	1,035,000	396,000			1,737,000	1,741,000	
Aldercrest Culvert Replacement & Kellogg Creek Restoration	800,000	800,000				1,600,000	2,223,000	
Valley View (Storm Costs Only)	350,000	-	-	250,000	750,000	1,350,000	3,668,000	
SE Clackamas Rd Drainage Infrastructure	750,000	100,000	-	-	-	850,000	1,743,000	
Idleman Conveyance	-	-	-	-	820,000	820,000	1,640,000	
Sunnyside Place Culvert Replacement & Stream Restoration	-	-	-	670,000	-	670,000	670,000	
NCRA Stormwater Plan	-	-	150,000	-	450,000	600,000	5,145,000	
SE 172nd Ditch Conveyance Improvement	-	-	-	-	100,000	100,000	100,000	
Subtotal	6,017,357	2,324,000	2,088,000	2,462,000	2,140,000	15,031,357	25,949,000	
Tri-City Water Resource Recovery Facility								
Administration Building Remodel (85% split with SS)			37,500	300,000	262,500	600,000	600,000	
Maintenance Building Relocation (85% split with SS)			45,000	150,000		195,000	195,000	
Subtotal	-	-	82,500	450,000	262,500	795,000	795,000	
Water Quality Laboratory								
Lab Remodel (85% split with SS)	225,000		75,000	225,000		525,000	593,000	
Subtotal	225,000	-	75,000	225,000	-	525,000	593,000	
Recurring / Programmatic Capital Project Costs								
Restoration and Property Acquisition	650,000	650,000	823,200	823,200	823,200	3,769,600	N/A	20%
Stormwater Pond Repair and Rehabilitation Program	411,000	411,000	411,000	411,000	411,000	2,055,000		
Water Quality Retrofit Program	100,000	198,300	198,300	198,300	151,000	845,900		
Small Drainage Projects Program	100,000	100,000	100,000	100,000	100,000	500,000		
Small Storm System Emergency Repairs	100,000	100,000	100,000	100,000	100,000	500,000		
UIC Decommissioning/Retrofit Program		53,000	53,000	53,000	53,000	212,000		
Water Quality Lab: Equipment (85% split with SS)		7,500		7,500		15,000		
Subtotal	1,361,000	1,519,800	1,685,500	1,693,000	1,638,200	7,897,500		
TOTAL - ALL STORMWATER PROJECTS	\$ 7,603,357	\$ 3,843,800	\$ 3,931,000	\$ 4,830,000	\$ 4,040,700	\$ 24,248,857	\$ 27,337,000	

*Total Project Costs are rounded to nearest \$1,000, and include projected spending after FY 2029-30 and estimated spent-to-date through the end of FY 2024-25.

Appendix A

Sanitary Sewer Project Detail Sheets

Project Name: Tri-City WRRF Outfall

Project Subprogram: Tri-City WRRF

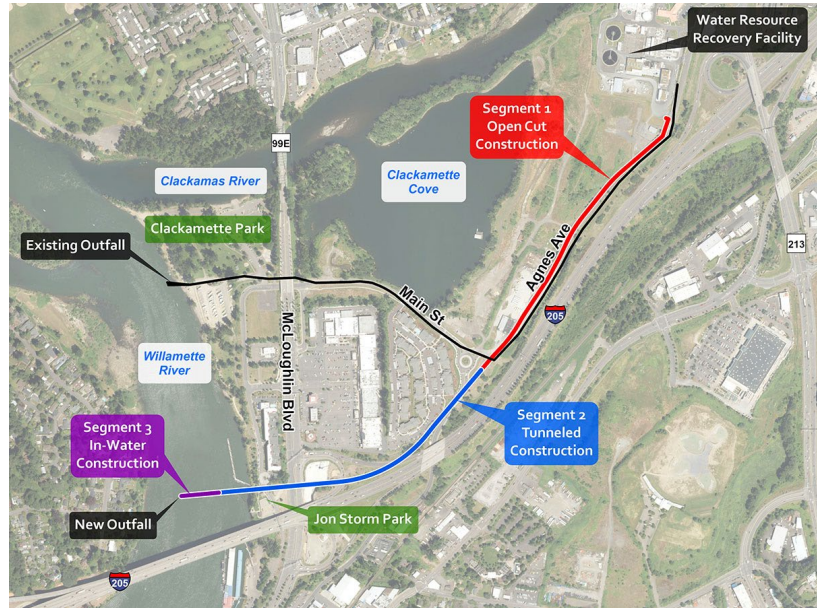
Project Fund: 632/639

Current Project Phase: Construction

Project Completion: 2026

Project Description:

Projected flows to the Tri-City WRRF were developed as part of the Sanitary Sewer Master Plan (SSMP) and are expected to be approximately 176 MGD under build-out (2080) conditions and assuming I/I is reduced to levels recommended in the SSMP. The capacity of the existing Tri-city WRRF outfall is approximately 75 MGD. The capacity of the new outfall alone will be sufficient for decades to come. The new outfall, along with the existing outfall, will provide capacity for buildout flows.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 2	Class 1
ESTIMATE	\$66,482,000	\$64,000,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Progressive design-build procurement was utilized for this project. Estimate based on contractor spend rate and final design documents.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	C	C	-	-	-	-

Total Project Cost³	\$ 64,000,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 49,920,000
Sewer SDC Fund 632	\$ 14,080,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Wet Weather Expansion

Project Subprogram: Tri-City WRRF

Current Project Phase: Planning

Project Fund: 632/639

Project Completion: 2031

Project Description:

The results of the Collection System Master Plan show that peak wet weather flow to the Tri City WRRF currently exceeds its hydraulic capacity. The current hydraulic capacity of the facility is 70 MGD. Projected 2040 peak flow is 105 MGD assuming I/I reduction goals (65% in 19 basins) are met. The Willamette Facilities Plan recommends an expansion of the wet-weather treatment capacity to include new headworks, high-rate clarification and disinfection.

Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$48,745,000	\$58,000,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: The cost increase is related to inflation and assumes that the Oregon Department of Environmental Quality allows the recommended alternative to proceed.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	D	D/C	C	C

Total Project Cost³	\$ 58,000,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 29,000,000
Sewer SDC Fund 632	\$ 29,000,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Influent Pump Station Expansion

Project Subprogram: Tri-City WRRF

Current Project Phase: Design

Project Fund: 632/639

Project Completion: 2027

Project Description:

The Influent Pump Station (IPS) pumps flow that arrives from the sanitary sewer collection system by gravity to the influent screening channel for subsequent treatment through the facility. The pumps are original to the 1985 construction and have a firm (largest pump out of service) hydraulic capacity of 50 MGD. The pumps and variable frequency drives have reached the end of their service life and are due for replacement. The firm capacity has been exceeded during wet weather events in recent years, necessitating the immediate need for expansion. The project will include new pumps and drives sized for projected 2040 influent flows. Pump station mechanical, electrical, and control systems will be replaced as needed to operate the new pumps and extend the life of the facility.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 4
ESTIMATE	7,303,000	\$18,350,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Preliminary design efforts identified a substantial amount of existing electrical infrastructure at the WRRF needs to be upgraded as part of the project, which led to broader project scope and higher associated costs than envisioned in planning efforts.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	C	-	-

Total Project Cost³	\$ 18,350,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 9,175,000
Sewer SDC Fund 632	\$ 9,175,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Primary Clarifier Rehabilitation

Project Subprogram: Tri-City WRRF

Current Project Phase: Construction

Project Fund: 639

Project Completion: 2025

Project Description:

This project replaces the mechanical equipment associated with the primary clarifier basins and rehabilitation of the concrete basin walls, which have deteriorated following exposure to continuous wear from grit and hydrogen sulfide. The mortar repair will help maintain the integrity of the structure and the mechanical rehab will replace equipment that is original to the plant. There are six primary sedimentation basins, two of which can be off-line at a time. This work is required to be completed during the dry season when basins can be taken out of service. This spreads the construction over three years.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 1	Class 1
ESTIMATE	\$16,826,000	\$14,350,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Numbers presented are based on actual bid results and contracts in place. The current project cost estimate has reduced since the original bid, as concrete repair work has been completed under budget.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	C	C	-	-	-	-

Total Project Cost³	\$ 14,000,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 14,000,000

³ Refer to Section Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Rossman Landfill Mitigation Project

Project Subprogram: Tri-City WRRF

Current Project Phase: Planning

Project Fund: 632

Project Completion: 2028

Project Description:

Rossman Landfill was to be mitigated as part of the Membrane Bio-Reactor (MBR) Phase 1 construction project but the work was not performed due to the location of the MBR being outside of the landfill footprint. Thus, this project, like the MBR project is 100% SDC eligible. The cost for this project will need to be refined as the mitigation requirements are further studied and a plan is developed with DEQ. This project is scheduled to be complete prior to the Tri City Wet Weather Expansion to reduce risk/uncertainty from that project.

Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$7,500,000	\$7,500,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: N/A

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	D	C	C	-	-

Total Project Cost³	\$ 7,500,000
Funding Source(s)	
Sewer SDC Fund 632	\$ 7,500,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City Administration Building Remodel

Project Subprogram: Tri-City WRRF

Project Fund: 639/649

Current Project Phase: Planning

Project Completion: 2029

Project Description:

The Tri-City Administration Building is in need of a remodel to address generally outdated and deteriorated spaces and create workspaces for current and future staff. A conceptual design was completed and recommended repurposing the existing large vehicle garage into finished space. Since the concept design requires the relocation of the garage, delivery of these projects will be coordinated and sequenced to minimize impacts to staff.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$4,158,000	\$4,000,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project soft costs were recalculated.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	D	C	C

Total Project Cost³	\$ 4,000,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 3,400,000
Surface Water Construction Fund 649	\$ 600,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Aeration Basin Improvements

Project Subprogram: Tri-City WRRF

Project Fund: 639

Current Project Phase: Design

Project Completion: 2029

Project Description:

The four conventional aeration basins are original to the facility. The aeration system consists of valves and instruments that control the flow of oxygen to the biological treatment process. The aeration system at Tri-City’s aeration basins, along with its programming and controls, are antiquated and need to be replaced. This renewal will improve process performance and increase efficiency, significantly conserving electricity used to power air blowers. In addition to control and process improvements, this project will also address deficiencies of the basins’ structural concrete and other ancillary systems.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$3,650,000	\$4,000,000

¹ This estimate was identified in the previous CIP. ² Refer to ‘Project Cost Updates’ Section for classification definitions

Notes related to project cost estimate changes: Project soft costs were recalculated

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D	D/C	C	C	-

Total Project Cost³	\$ 4,000,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 4,000,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Headworks Rehabilitation

Project Subprogram: Tri-City WRRF

Project Fund: 639

Current Project Phase: Planning

Project Completion: 2031

Project Description:

The Willamette Facilities Plan identifies the need to refurbish the headworks at Tri-City. The specific refurbishments identified in the plan are to be further refined during design. Improvements include replacing existing mechanical bar screens, rehabilitating piping and gates, repairing channel concrete, and rehabilitating the main screening room to bring it up to current code.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$3,200,000	\$3,200,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: N/A

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	P	D/C	-	-	-	-

Total Project Cost³	\$ 3,200,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 3,200,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Maintenance Building Relocation

Project Subprogram: Tri-City WRRF

Project Fund: 639/649

Current Project Phase: Planning

Project Completion: 2028

Project Description:

The Tri-City Administration Building is in need of a remodel to address generally outdated and deteriorated spaces and create workspaces for current and future workforce. Currently, the building houses a garage for several large trucks that require overnight freeze protection. During the concept design phase, it was identified that relocating the garage would be a lower cost than constructing new administration space and will allow the existing garage to be converted into finished space. Construction of this new building to protect large vehicles will need to be coordinated with the planned improvements for the Tri-City Administration Building. Cost shown does not include property acquisition, if needed.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$1,300,000	\$1,300,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: N/A

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	D	C	-

Total Project Cost³	\$ 1,300,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 1,105,000
Surface Water Construction Fund 649	\$ 195,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Tri-City WRRF Rehabilitate Chlorine Contact Basins and Replace Gates

Project Subprogram: Tri-City WRRF

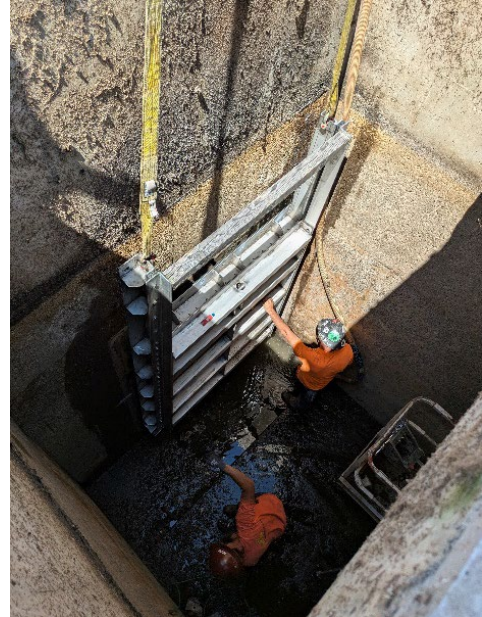
Current Project Phase: Design

Project Fund: 639

Project Completion: 2030

Project Description:

The Willamette Facilities Plan (WFP) Condition Assessment identified two items related to the Tri-City facility chlorine contact basins (CCB) requiring rehabilitation. The first is the concrete inside the chlorine contact basins is showing signs of deterioration and requires surface repair. The second item is the replacement of the influent gates. This project will be addressed in two phases, starting with the influent gate and actuator replacement in FY 24/25. The concrete surface repair work will be further evaluated to develop a final plan for addressing this condition item identified by the WFP and to extend the life of the basins.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$975,000	\$1,080,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project soft costs were recalculated.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	-	-	-	-	-

Total Project Cost³	\$ 1,080,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 1,080,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Lab

Project Subprogram: Lab

Project Fund: 639/649

Current Project Phase: Design

Project Completion: 2029

Project Description:

A conceptual design was performed for a remodel of the WES Lab Building located on the Tri-City campus. The project includes a new roof, a new HVAC system and reconfiguration of office space. Due to the immediate need for the roof system, that part of the remodel was completed during FY22/23. The HVAC Improvements are in design and will be constructed in 2025. The full lab remodel will be constructed along with the Tri-City Administration remodel project anticipated to be completed in 2029.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	01/24
CLASS²	Class 5	Class 5
ESTIMATE	\$1,540,000	\$4,000,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: A new Admin Plan was developed January 2024. Revised Estimate for Lab HVAC came in higher, so additional costs were added. This will be combined with the TC Admin Project and be built at one time.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D/C	C	-	D/C	C	-

Total Project Cost³	\$ 4,000,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 3,400,000
Surface Water Construction Fund 649	\$ 600,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Kellogg Creek WRRF Digester Improvements and Dewatering

Project Subprogram: Kellogg WRRF

Current Project Phase: Planning

Project Fund: 639

Project Completion: 2032

Project Description:

Currently, digested sludge from the Kellogg Facility is hauled to, and dewatered at, the Tri-City WRRF. Dewatered biosolids are hauled from Tri-City WRRF to eastern Oregon for beneficial reuse. This project would provide dewatering capabilities at the Kellogg WRRF with additional improvements to the digester complex, including updating the biogas utilization system. The budget for this project was previously increased to include new thickening equipment, the replacement of which was originally in the Kellogg Improvements project but was delayed to be included in this project.



Project Cost Estimate:

	Previous¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$34,200,000	\$27,800,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project soft costs were recalculated

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	-	D	D/C

Total Project Cost³	\$ 27,800,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 27,800,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Kellogg Creek WRRF Administration Building Remodel

Project Subprogram: Kellogg WRRF

Project Fund: 639

Current Project Phase: Design

Project Completion: 2026

Project Description:

This project remodels the Administration Building at the Kellogg Facility to update the lab, provide locker rooms, a kitchen/lunchroom and offices for staff. This project will also include a dual purpose conference room that will be available for community use. A conceptual design has been completed. This project needs to be completed prior to construction of the Digestion and Dewatering Project at the Kellogg Creek WRRF as that project includes demolishing the current staff locker rooms and kitchen/lunchroom.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 4	Class 4
ESTIMATE	\$4,084,000	\$4,200,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: The previous estimate underestimated inflation to mid-point of construction. This updated value is from the current estimate developed in design.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D/C	C	C	-	-	-

Total Project Cost³	\$ 4,200,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 4,200,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Kellogg Creek WRRF UV Replacement

Project Subprogram: Kellogg WRRF

Project Fund: 639

Current Project Phase: Design

Project Completion: 2027

Project Description:

Wastewater treated at the Kellogg Creek WRRF is primarily disinfected with ultraviolet (UV) light, while a chlorination system provides backup. The Willamette Facilities Plan identifies a need to renew this disinfection system to ease maintenance and improve reliability. The UV equipment is at the end of its useful life. This project will evaluate and select the best disinfection system, and then design and construct the recommended improvements.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$3,160,000	\$2,250,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project soft costs were recalculated.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	-	-	-

Total Project Cost³	\$ 2,250,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 2,250,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Kellogg Creek WRRF Headworks/Grit Loading Improvements

Project Subprogram: Kellogg WRRF

Current Project Phase: Planning

Project Fund: 639

Project Completion: 2028

Project Description:

The headworks and grit loading systems at Kellogg are original to the 1970s construction of the facility and are in need of an update to provide reliable treatment. Planned improvements include replacing two existing mechanical bar screens and accessories, rehabilitating the grit removal system, and updating the electrical, instrumentation, and control systems.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$1,840,000	\$1,500,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project soft costs were recalculated.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	D	C	-	-

Total Project Cost³	\$ 1,500,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 1,500,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Kellogg Creek WRRF Primary Clarifier Rehabilitation

Project Subprogram: Kellogg WRRF

Project Fund: 639

Current Project Phase: Planning

Project Completion: 2029

Project Description:

This project was identified as a condition assessment project to rehabilitate Primary Basin 1 and 2. The facility plan identified that rehabilitation will include addressing the corrosion of the concrete within the basins and full replacement of the bottom basin grout. During the design phase of this project, further evaluation of the basins will be conducted to refine the full scope of this project. At this time, replacement of the mechanical equipment is not included as part of this project.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$1,800,000	\$1,300,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project soft costs were recalculated

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase			D	C	C	

Total Project Cost³	\$ 1,300,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 1,300,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Hoodland WRRF Facility Plan

Project Subprogram: Hoodland WRRF

Current Project Phase: Planning

Project Fund: 632

Project Completion: 2026

Project Description:

The Hoodland Water Resource Recovery Facility (WRRF) was originally constructed in 1982 and provides treatment of wastewater from the Hoodland service area prior to discharge into the Sandy River. The 2017 Hoodland Master Plan provided system-wide recommendations for the service area, including the recommendation to develop a Facility Plan to address



condition and capacity issues at the WRRF. The Facility Plan will develop a projection of future flows and loads into the WRRF, evaluate the condition of existing infrastructure, document existing and potential new regulatory considerations, and make recommendations for necessary improvements to the facility.

Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$250,000	\$300,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Estimate escalated for inflation.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	P	P	-	-	-	-

Total Project Cost³	\$ 300,000
Funding Source(s)	
Sewer SDC Fund 632	\$ 300,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Hoodland WRRF Secondary Treatment Upgrade

Project Subprogram: Hoodland WRRF

Current Project Phase: Planning

Project Fund: 632/639

Project Completion: 2033

Project Description:

The Hoodland Water Resource Recovery Facility (WRRF) was originally constructed in 1982 and provides treatment of wastewater from the Hoodland service area prior to discharge into the Sandy River. The Hoodland Facility Plan (HFP) will make recommendations for necessary improvements to the facility. This project is a placeholder in anticipation of a project recommendation from the HFP. This project definition and costs will be updated at the completion of the HFP.



Project Cost Estimate:

	Previous ¹	Current
DATE	N/A	08/24
CLASS²	N/A	Class 5
ESTIMATE	N/A	\$10,500,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Estimate escalated for inflation.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	-	-	D

Total Project Cost³	\$ 10,500,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 5,250,000
Sewer SDC Fund 632	\$ 5,250,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Boring Upgrades

Project Subprogram: Boring WRRF

Project Fund: 639

Current Project Phase: Planning

Project Completion: 2031

Project Description:

The Boring WRRF periodically is not able to meet effluent water quality requirements defined in the NPDES permit. During winter months, wastewater must occasionally be hauled to a different WES WRRF when the facility is unable to adequately reduce ammonia concentrations. During the summer months, onsite irrigation of treated effluent is essential to limit temperature impacts to the discharge stream. In 2020, a Facilities Plan was prepared that recommended the facility be permanently converted to a pump station to convey flow to another facility for treatment.



Design of the proposed pump station and force main was initiated, but detailed cost estimates prepared during the initial phases of design exceeded the planning level estimates and the project to convert the facility to a pump station was placed on hold until a more feasible discharge location can be realized. An updated alternatives analysis is being performed to identify a cost-feasible approach to continue operation of the existing facility until the recommended long-term solution can be implemented.

Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$10,000,000	\$10,230,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: New estimate is based on grants received and not based on the cost estimate from the Facility Plan.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	P	P	D	D	-	-

Total Project Cost³	\$ 10,230,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 10,230,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Clackamas Area Interceptor Improvements

Project Subprogram: Collection System

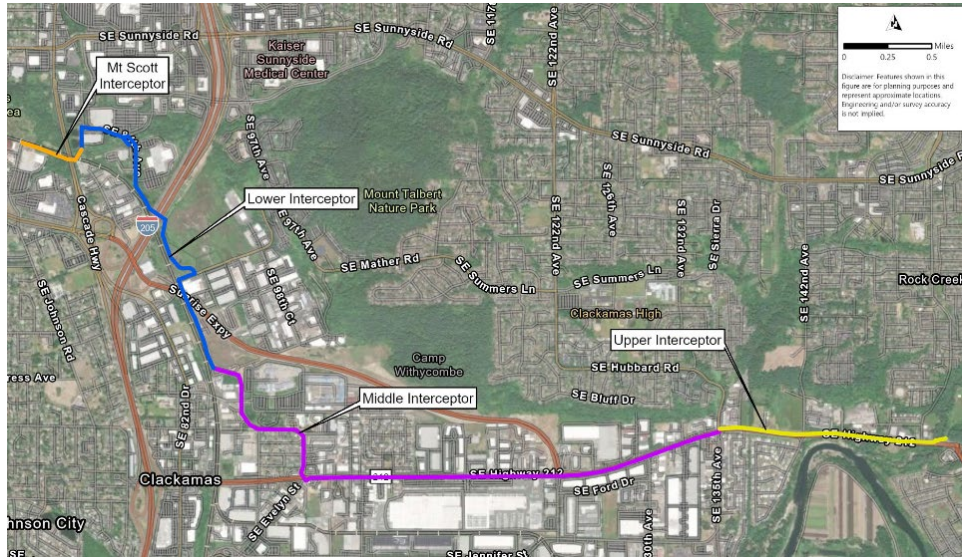
Current Project Phase: Design

Project Fund: 632/639

Project Completion: 2035

Project Description:

The Clackamas Interceptor has been shown in past studies and in the SSMP to lack capacity to serve the current and future service areas. Parts of the interceptor require rehabilitation. A conceptual design has been completed. Improvements along the length of the interceptor will be designed as one system to assure cohesiveness, then construction will be phased over several years and multiple projects to best meet capacity needs and funding resources. There will be multiple construction packages constructed over the next 10+ years and the associated map shows approximate bounds of project phasing that may change through design.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	03/24
CLASS²	Class 5	Class 4
ESTIMATE	\$46,119,000	\$63,660,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Trenchless installation and unforeseen environmental risk, as well as general inflation over this period, made up most of the increases to the estimate.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D	D/C	C	C	C

Total Project Cost³	\$ 63,660,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 31,830,000
Sewer SDC Fund 632	\$ 31,830,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Willamette Pump Station and Force Main Capacity

Project Subprogram: Collection System

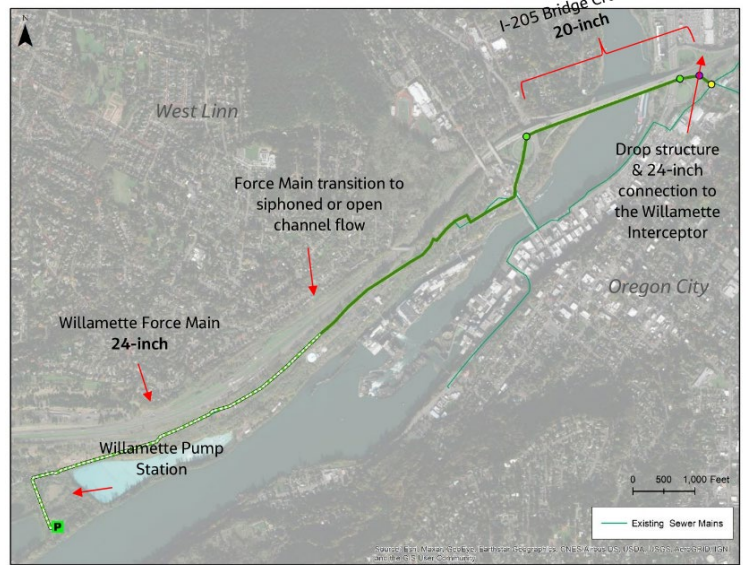
Project Fund: 632/639

Current Project Phase: Design

Project Completion: 2030

Project Description:

The Willamette Pump Station collects flow from the Willamette area of West Linn and conveys it to the Willamette Interceptor. The SSMP and a subsequent detailed evaluation showed the pump station and force main are at capacity and in need of expansion. Condition issues also need to be addressed. WES took advantage of the Abernethy Bridge Expansion Project and contracted with ODOT to suspend a portion of the force main from the bridge at a cost savings to rate payers. The remainder of the project includes replacement of the Willamette Pump Station and an upsized force main from the pump station to the Abernethy Bridge to accommodate planned future flows.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 4
ESTIMATE	\$30,476,667	\$38,090,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project costs increased due to site geotechnical conditions, increased cost of pipe material, and possible utility conflicts, as well as inflation.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	C	C	C

Total Project Cost³	\$ 38,090,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 19,045,000
Sewer SDC Fund 632	\$ 19,045,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: I/I Reduction Program

Project Subprogram: Collection System

Project Fund: 632

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

Inflow and Infiltration (I/I) is clean groundwater and/or rainwater that enters the sewer system through direct connections such as roof drains or area drains or defects such as leaking joints or manholes. When the amount of I/I becomes excessive it can cause capacity deficiencies in the sewer system and possible overflows. When the amount of I/I becomes excessive it is more cost effective to remove the I/I than upsize infrastructure or treatment facilities to transport and treat the extraneous clean water. The Sanitary Sewer System Master Plan (2019) recommended removal of excessive I/I in 19 basins in WES and member city systems. All future WES planning assumes removal of the I/I. WES initiated a five year program to assist member cities with the cost of removal of I/I in basins identified in their systems. This project includes those costs and assumes ongoing costs through the planning period.



Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 13,675,000²
Funding Source(s)	
Sewer SDC Fund 632	\$ 13,675,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring cost with a range of future projects with varying scope, additional future spending beyond the next five years is not included in this figure

Project Name: IT2 Pump Station Expansion and 30-inch Force Main

Project Subprogram: Collection System

Current Project Phase: Design

Project Fund: 632/639

Project Completion: 2027

Project Description:

The Intertie Pump Station diverts flow in excess of Kellogg WRRF capacity to the Tri-City WRRF. The pump station is at capacity and was constructed so that pump(s) can be added to increase capacity. The 30-inch force main from the pump station to Tri-City WRRF was partially constructed in past years. This project will complete construction of the force main. The pump station is scheduled for a second expansion beyond 2030.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	07/24
CLASS²	Class 2/4	Class 1/3
ESTIMATE	\$25,034,000	\$23,060,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Bids for construction of the force main came in under engineer's estimate in July 2024. The pump station portion of the project is still in design, which is why two classifications are listed for the project estimate.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D/C	C	C	-	-	-

Total Project Cost³	\$ 23,060,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 11,530,000
Sewer SDC Fund 632	\$ 11,530,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Rock Creek Interceptor Extension

Project Subprogram: Collection System

Current Project Phase: Design

Project Fund: 632

Project Completion: 2028

Project Description:

The Sanitary Sewer Master Plan completed in 2019 built upon a preliminary routing analysis that was completed in 2007 for the extension of the Rock Creek Interceptor. Based on this planning work, the interceptor will be extended to the north and east. The schedule for implementation will need to be balanced against available downstream conveyance and treatment capacity. The project is currently in the preliminary design phase.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$12,017,000	\$12,190,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: No new cost estimates, changes related to inclusion of project soft costs.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D	D/C	C	-	-

Total Project Cost³	\$ 12,190,000
Funding Source(s)	
Sewer SDC Fund 632	\$ 12,190,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Multiple Pump Station Upgrades

Project Subprogram: Collection System

Current Project Phase: Construction

Project Fund: 639

Project Completion: 2026

Project Description:

Several pump stations are in need of rehabilitation. The type of upgrades include, but are not limited to, pumps and electrical, HVAC and structural components. By designing the project once and constructing in phases, WES is providing consistency across our facilities and being efficient with design costs. The pump stations include Sieben Lane, South Welches, Golf Course Terrace, Gladstone, Clackamas, 82nd Drive, Bolton, River Street, Timberline Rim, and Willamette.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 4	Class 3/1
ESTIMATE	\$9,683,000	\$12,010,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: This project includes multiple pump station upgrades at various levels of design and so the classification identified here does not represent the entire project. Scope has fluctuated with project need across the pump stations throughout the system.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D/C	D/C	C	-	-	-

Total Project Cost³	\$ 12,010,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 12,010,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Timberline Rim and Sandy River Lane Pump Station with Force Main

Project Subprogram: Collection System

Current Project Phase: Planning

Project Fund: 639

Project Completion: 2034

Project Description:

The Timberline Rim and Sandy River Lane Pump Stations and associated force main are located in the Mt. Hood Village area, adjacent to the Sandy River. The pump stations were constructed in 1982 and 2002, respectively, and operate upstream of the Hoodland WRRF. Both pump stations and force main are at risk of erosion due to movement of the Sandy River, posing significant risk of failure. Also, in periods of wet weather when the system experiences peak flow, capacity in the system is not adequate with risk of overflow. This project evaluates the condition of both pump stations and evaluates relocating these assets, as well as the associated force main, to increase the system capacity and ensure system resiliency.



Project Cost Estimate:

	Previous ¹	Current
DATE	N/A	08/24
CLASS²	N/A	Class 5
ESTIMATE	N/A	\$8,500,000

¹This project was not identified in previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: N/A

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	D	C	-

Total Project Cost³	\$ 8,500,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 8,500,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Linwood Ave Pump Station and Force Main

Project Subprogram: Collection System

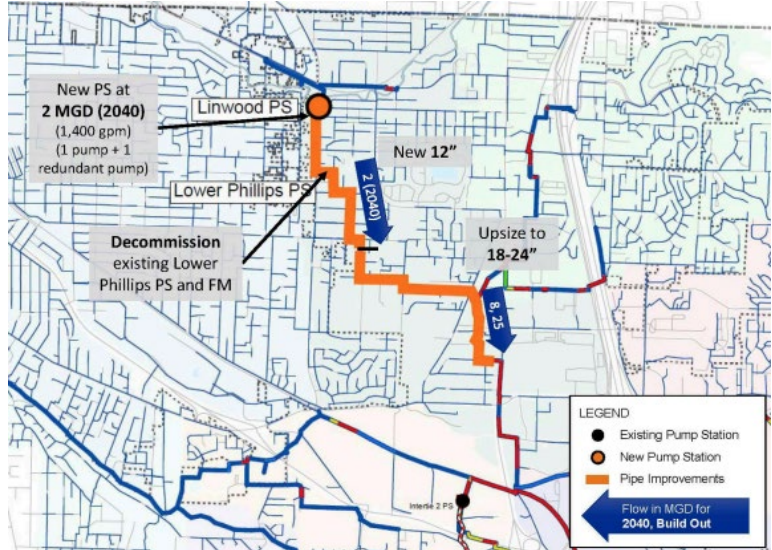
Project Fund: 632

Current Project Phase: Planning

Project Completion: 2034

Project Description:

The Linwood Ave Pump Station and Force Main project consists of building a new pump station and associated force main in the vicinity of the intersection of Linwood Ave and SE Johnson Creek Boulevard. WES is allowed limited flows to the City of Portland through an existing agreement and this project allows continued growth in the area without sending additional flows to Portland. The Collection SSMP identified construction of a new pump station that would replace the existing Lower Phillips Pump Station which was last modified in 1993. The new Linwood Ave Pump Station would have a 2.0 MGD capacity, allowing for modeled future flows. WES has been collaborating with Clackamas County Development Agency to install portions of future 12" FM as roadway improvements are constructed in the project vicinity.



The new Linwood Ave Pump Station would have a 2.0 MGD capacity, allowing for modeled future flows. WES has been collaborating with Clackamas County Development Agency to install portions of future 12" FM as roadway improvements are constructed in the project vicinity.

Project Cost Estimate:

	Previous ¹	Current
DATE	N/A	08/24
CLASS²	N/A	Class 5
ESTIMATE	N/A	\$6,800,000

¹This project was not identified in previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: N/A

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	P	D	-	-	-	-

Total Project Cost³	\$ 6,800,000
Funding Source(s)	
Sewer SDC Fund 632	\$ 6,800,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Bolton Force Main Evaluation and Replacement

Project Subprogram: Collection System

Current Project Phase: Planning

Project Fund: 639

Project Completion: 2029

Project Description:

The Bolton and River Street pump stations are served by 16" and 12" force mains respectively. The force mains were installed in the 1980s', and recently the Bolton force main has had breaks in the pipe. This project will determine, based on hydraulic needs and condition, if the existing force mains can be rehabilitated or if a new force main will need to be installed to provide a reliable and resilient way to transport sewage from the north side of West Linn across the Willamette River for treatment at the Tri-City WRRF.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	6,100,000	6,500,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: The estimate was developed based on technical experience and updated to include escalation due to inflation. Total project costs include pigging and analysis work as well as work to address proposed solution.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	P	P	D	C	C	-

Total Project Cost³	\$ 6,500,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 6,500,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Oregon City Interceptor Rehabilitation

Project Subprogram: Collection System

Project Fund: 632/639

Current Project Phase: Planning

Project Completion: 2031

Project Description:

The Oregon City interceptor consists of 30”- 42” sewers located adjacent to Clackamette Park and McLoughlin Boulevard in Oregon City and was constructed in 1984. The interceptor was identified in the Collection SSMP with a moderate risk score, and is therefore scheduled further out than other assets identified in the SSMP, with design beginning in 2030. The Oregon City Interceptor project addresses the condition issues in the Oregon City Interceptor. The improvements involve lining the existing interceptor and hydraulic modifications to the Gladstone Pump Station discharge to address flow backups by reducing losses through the flow structure. This project is eligible to be funded 50% through SDC funding.



Project Cost Estimate:

	Previous ¹	Current
DATE	N/A	08/24
CLASS²	N/A	Class 5
ESTIMATE	N/A	\$1,800,000

¹ This project was not identified in previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: N/A

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	-	-	D

Total Project Cost³	\$ 1,800,000
Funding Source(s)	
Sewer SDC Fund 632	\$ 900,000
Sewer Construction Fund 639	\$ 900,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Clackamas Force Main 10-inch Upsize

Project Subprogram: Collection System

Project Fund: 632/639

Current Project Phase: Planning

Project Completion: 2027

Project Description:

The existing force main from the Clackamas Pump Station has an approximately 2,000 linear foot section where the pipe reduces size from 12-inch to 10-inch diameter and causes pressure issues with the air relief valves. The reduction in diameter limits operations ability to clean the force main as part of regular force main maintenance. This project includes the design and construction of the replacement of the 10-inch diameter segment and upsizes it for additional capacity.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$1,000,000	\$1,250,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project estimate increased estimate due to additional investigation work and inflation.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	-	-	-

Total Project Cost³	\$ 1,250,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 625,000
Sewer SDC Fund 632	\$ 625,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Mt. Talbert Realignment

Project Subprogram: Collection System

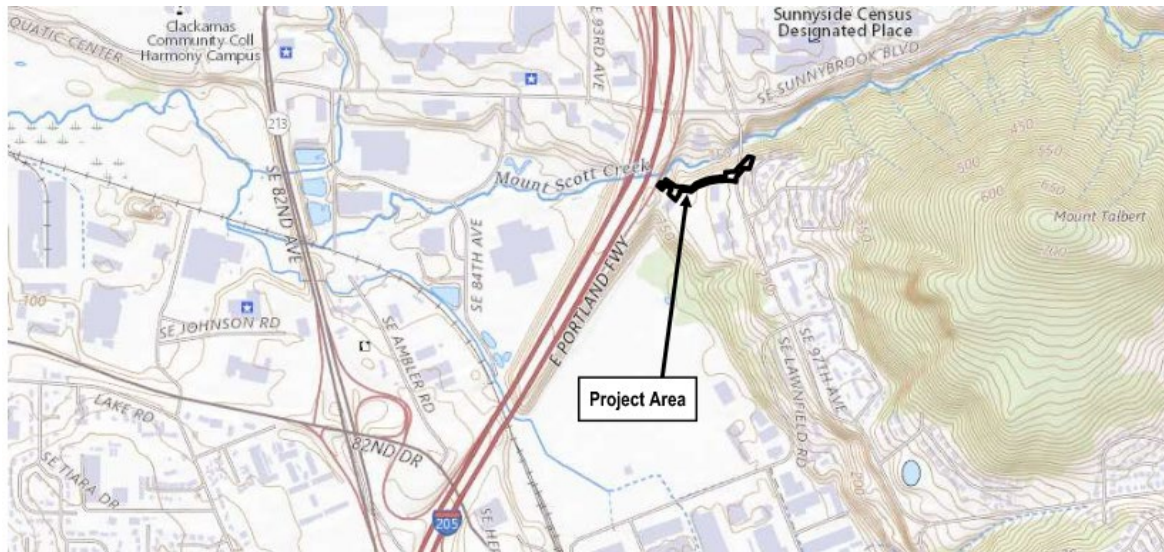
Current Project Phase: Construction

Project Fund: 632/639

Project Completion: 2025

Project Description:

An 8-inch sewer that connects to the Mount Talbert Interceptor and serves properties south of Sunnybrook Boulevard in the vicinity of SE 97th Avenue had a failure in August of 2022. This project will reroute the existing sewer to eliminate a creek crossing and establish a more reliable sewer alignment.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	12/23
CLASS²	Class 3	Class 2
ESTIMATE	\$1,066,000	\$900,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: A new estimate was delivered in December 2023.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D/C	C	-	-	-	-

Total Project Cost³	\$ 900,000
Funding Source(s)	
Sewer Construction Fund 639	\$ 900,000

³ Refer to Table 2 for a more detailed annual project cost breakdown

Project Name: Permanent Flow Metering Program

Project Subprogram: Collection System

Project Fund: 639

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

WES uses approximately 25 permanent flow meters in the gravity collection system. The data collected at the flow meter locations is used to track I/I reduction and evaluate system capacity. As the system continues to grow, these ongoing costs are for replacement of the existing meters as well as for expansion to meter new basins.



Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 50,000 ²
Funding Source(s)	
Sewer Construction Fund 639	\$ 50,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Pipe and Manhole Rehabilitation and Replacement

Project Subprogram: Collection System

Project Fund: 632/639

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

Sanitary sewer pipe and manholes are subject to degraded condition through exposure to chemicals, organic growths, and soil movement. This degradation leads to defects in pipe which can result in surface water and groundwater infiltration into the collection system, straining treatment capacities and increasing risk of pipe failure. WES tracks manhole and pipe condition through our asset management program. Projects are prioritized and each year, some work is planned to be done where budget allows. This project will repair and/or replace damaged and aging pipelines utilizing methods including pipe-lining, pipe bursting and replacement. This project will also rehabilitate aging manholes which have degraded condition through normal exposure to chemical and biological components and soil movement. Rehabilitation efforts to reduce risk will range from cleaning and spray lining to complete manhole replacement depending upon the degree of wear.



Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 5,500,000 ²
Funding Source(s)	
Sewer Construction Fund 639	\$ 2,750,000 ²
Sewer SDC Fund 632	\$ 2,750,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Pump Station Improvements

Project Subprogram: Collection System

Project Fund: 639

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

These funds are reserved for renewal and replacement of high risk pump station assets to increase reliability. Specific efforts in this project class include pump rebuilds or replacements.



Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 500,000 ²
Funding Source(s)	
Sewer Construction Fund 639	\$ 500,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Fleet: Light Duty

Project Subprogram: Fleet

Project Fund: 639

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

This project pool funds the replacement of aging fleet including vehicles used for pipeline and facility maintenance, stormwater operations, construction management and district support functions. We are also working to improve fuel economy and reduce carbon emissions. Specific vehicle purchases are prioritized during each fiscal year and are based on an assessment that weighs the costs of maintenance versus the costs of replacement. The assessment includes such screening criteria as miles driven, hours used, age of equipment, and economic life. The goal of this project pool is to systematically replace District vehicles to minimize the impact on rates without adversely impacting service levels.



Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase						

Total Project Cost¹	\$ 1,755,000²
Funding Source(s)	
Sewer Construction Fund 639	\$ 1,755,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Fleet: Heavy Equipment

Project Subprogram: Fleet

Project Fund: 639

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

This project pool funds the replacement of aging heavy fleet and equipment used in plant operations, pipeline and infrastructure maintenance, and liquid biosolids transport.



Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase						

Total Project Cost¹	\$ 1,200,000 ²
Funding Source(s)	
Sewer Construction Fund 639	\$ 1,200,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Lab Equipment

Project Subprogram: Lab

Project Fund: 639/649

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

These funds are reserved for small projects related to new or replaced lab equipment which are capital in nature, including analytical instruments, balances, ovens and incubators, etc. This is an ongoing cost.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 100,000 ²
Funding Source(s)	
Sewer Construction Fund 639	\$ 85,000 ²
Surface Water Construction Fund 649	\$ 15,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Water Resource Recovery Facilities: Small Projects

Project Subprogram: Asset Maintenance

Current Project Phase: Recurring

Project Fund: 639

Project Completion: Ongoing

Project Description:

These funds are reserved for small projects related to operational assets which are capital in nature, including small pump replacements, minor system and process updates, and small machinery. The intent is to replace or upgrade high risk assets efficiently thereby maintaining effective treatment plant operations. Specific efforts in this fund may include electrical updates, instrumentation upgrades, and process HVAC system improvements. This project was formerly known as 'Asset Management - Renewal and Replacement.'

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 4,000,000 ²
Funding Source(s)	
Sewer Construction Fund 639	\$ 4,000,000 ²

¹ Refer to Table 2 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Appendix B

Surface Water Project Detail Sheets

Project Name: 3-Creeks Water Quality Project

Project Subprogram: Watershed Protection

Project Fund: 649

Current Project Phase: Design

Project Completion: 2026

Project Description:

WES owns the 3-Creeks Natural Area where Mt. Scott, Phillips and Deer (Dean) Creeks come together on 89 acres in Northern Clackamas County. WES is working on the final plans to enhance floodplain processes and the existing natural floodplain area, construct wetlands and floodplain terraces to increase flood storage, improve fish and wildlife habitat, restore wetlands, and restore natural floodplain function. The project will improve the creek’s water quality by allowing sediments in high water to settle onto the floodplain, and by restoring floodplain processes such as filtration and infiltration. Pre-design work has been completed and is being financed through the Oregon Department of Environmental Quality’s State Revolving Loan Fund program. Permits have been submitted and construction is anticipated to begin in 2025.

Project Cost Estimate:

	Previous¹	Current
DATE	08/23	08/24
CLASS²	Class 3	Class 1
ESTIMATE	\$4,918,000	\$5,626,000

¹ This estimate was identified in the previous CIP. ² Refer to ‘Project Cost Updates’ Section for classification definitions

Notes related to project cost estimate changes: Project cost increases were partially related to inflation. Also, the previous estimate did not include design costs in the project cost estimate. This has been corrected, design costs are now included in total project cost.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	-	-	-

Total Project Cost³	\$ 5,626,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 5,626,000

³ Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: Rose Creek New Detention Pond and Instream Restoration

Project Subprogram: Watershed Protection

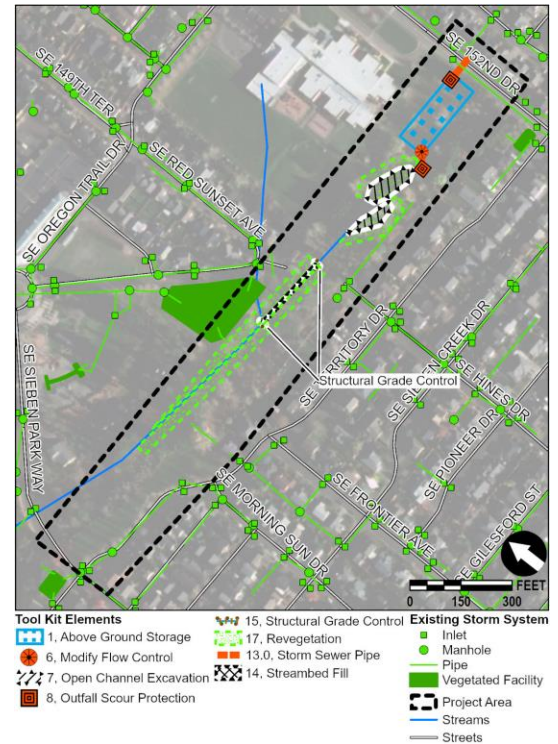
Project Fund: 649

Current Project Phase: Planning

Project Completion: 2028

Project Description:

The purpose of the project is to stabilize the stream, prevent future erosion, and improve habitat. The project will construct a stormwater detention pond and flow control structure upstream of the headcut to treat and detain runoff from the upstream residential neighborhood. This will reduce peak flow rates entering the stream system and reduce erosion in the stream. The proposed detention pond receives runoff from a drainage basin of approximately 30 acres. Rock grade control structures and stable streambed material will be placed in the stream to raise the level of the streambed and stabilize the headcut, protecting the pedestrian bridge, road, and habitat upstream. The project will also restore habitat within the riparian corridor of the site. Invasive vegetation will be removed, and native species will be planted. Vegetation restoration will include the establishment of habitat features such as brush piles, snags, and large woody debris. The large woody debris will also slow the flow of water and dissipate energy during high flow events. Wetland areas will be constructed adjacent to the main channel by excavation and planting with native wetland plants.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$3,393,000	\$3,393,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	D	D/C	C	C	-

Total Project Cost³	\$ 3,393,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 3,393,000

³ Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: SE Wildlife Estates Dr Ditch Inlet & Upstream Detention

Project Subprogram: Watershed Protection

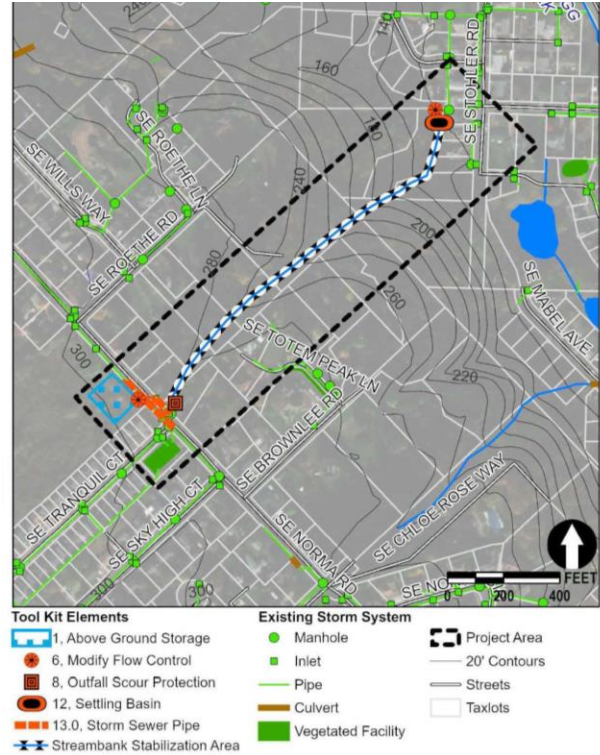
Current Project Phase: Planning

Project Fund: 649

Project Completion: 2027

Project Description:

The purpose of this project is to prevent flooding and reduce maintenance requirements by decreasing the volume of sediment eroded and deposited at the ditch inlet. The project will involve improvements at the top of the bluff, along the stream, and at the inlet location where debris is deposited. The project will reduce erosion by detaining stormwater runoff from the neighborhood in a pond at the top of the hill and stabilizing the creek through enhancement actions at the bottom of the hill, a settling basin will remove sediment before it reaches the ditch inlet. The inlet will also be improved to reduce the potential for clogging.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$1,976,400	\$1,741,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project costs decreased as the conceptual design was further evaluated

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	C	-	-

Total Project Cost³	\$ 1,741,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 1,741,000

³ Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: Aldercrest Culvert Replacement & Kellogg Creek

Project Subprogram: Watershed Protection

Current Project Phase: Design

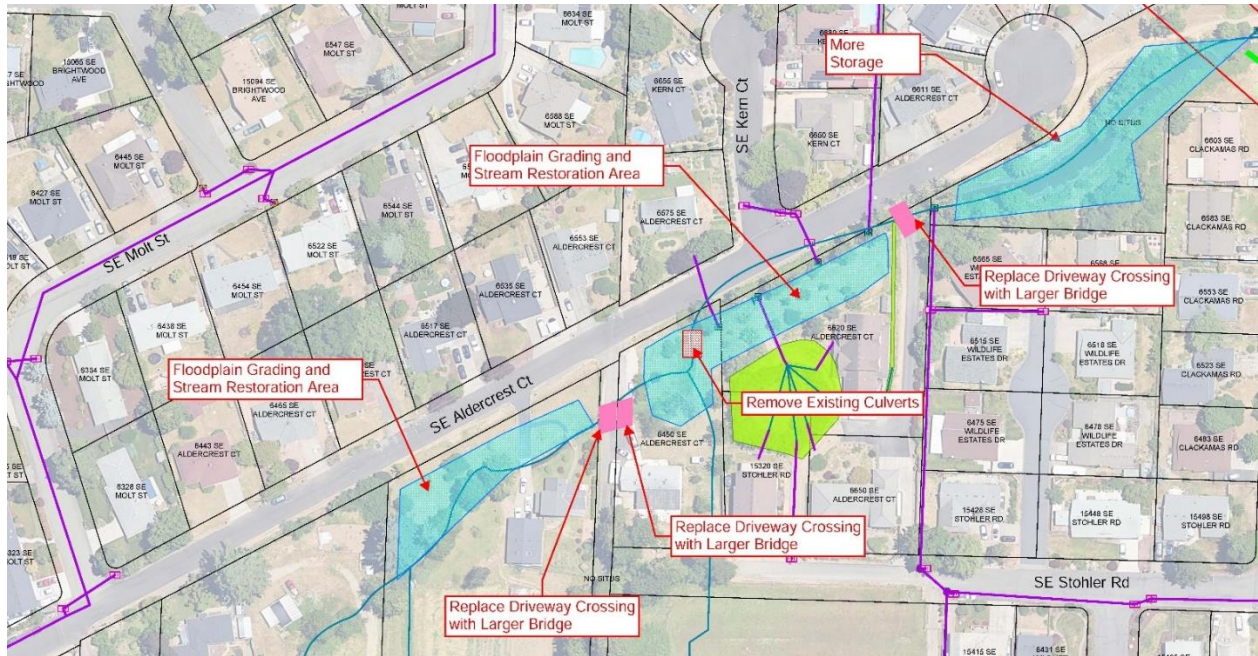
Project Fund: 649

Project Completion: 2026

Project Description:

The purpose of this project is to reduce flooding and improve habitat along Kellogg Creek between SE Clackamas Road and SE Thiessen Road by removing or replacing culverts and stream crossings and restoring the stream channel. Replacement stream crossings will be designed to be fish passable. The project proposes several discrete interventions in this section of Kellogg Creek that could be undertaken as separate projects depending on property owner cooperation and funding availability. At the southern end of the creek section, this project will remove one pair of parallel culverts that appear to serve no purpose, replace a small culvert with a concrete slab driveway bridge, and restore native vegetation along a length of the stream. Two driveway crossings will be replaced with concrete slab bridges to accommodate the natural stream form and provide fish passage. The proposed improvements take place entirely on private property and will require the cooperation of multiple property owners along the project reach.

This project will be funded with resources from Clackamas County's American Rescue Plan Act (ARPA) grant award, as approved by the Board of County Commissioners in October 2022.



Project Cost Estimate:

	Previous¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 3
ESTIMATE	\$2,200,000	\$1,875,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: This project is funded by ARPA. Any costs over allocated funds will be paid for from SW Construction fund.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	-	-	-

Total Project Cost³	\$ 1,875,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 1,875,000

³ Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: Valley View (Storm Costs Only)

Project Subprogram: Watershed Protection

Project Fund: 649

Current Project Phase: Planning

Project Completion: 2033

Project Description:

The Valley View Terrace storm system (age of construction range 1970s – 2005) is within the Mt. Scott Creek area, bounded in the north by SE Charview Ct and SE Valley View Terrace, and extends roughly 2,700 feet to the south, terminating at the intersection of SE Sunnyside Rd with SE Valley View Terrace. This section of storm drainage piping is in extremely poor condition, with known failures and issues, such as blockages, cracking/holes, failed seals, collapsed pipe segments, and sink holes. WES completed a Stormwater System Capacity & System Analysis of SE Valley View Terrace in February 2022 in which existing conditions were analyzed and conceptual system improvements were provided for the storm network. This project would build upon that study to develop and construct a new storm system. This project would require coordination with DTD for road replacement. WES will coordinate with DTD to address the drainage issues in the lower section of Valley View, between Spruce View and Sunnyside, in 2025/2026.

Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$3,278,000	\$3,668,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project cost increases were related to inflation.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase		D	C	P	P	D

Total Project Cost³	\$3,668,000
Funding Source(s)	
Surface Water Construction Fund 649	\$3,668,000

³ Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: SE Clackamas Rd Drainage Infrastructure

Project Subprogram: Watershed Protection

Project Fund: 649

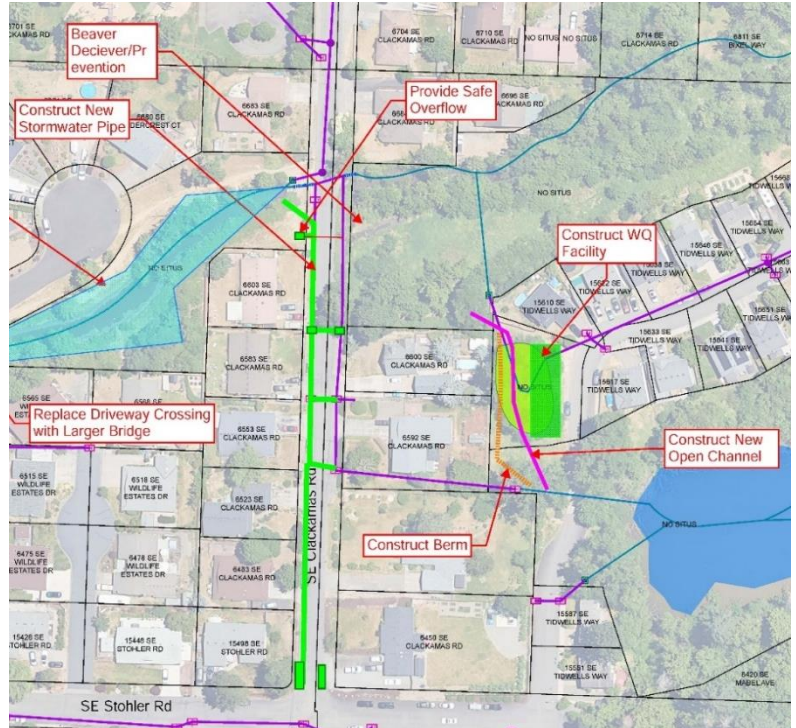
Current Project Phase: Design

Project Completion: 2026

Project Description:

The purpose of this project is to reduce flooding of properties near the SE Clackamas Road-Kellogg Creek crossing without replacing the culvert or disrupting the wetland upstream of the crossing. This will be achieved by replacing the undersized ditch inlet that collects a tributary stream and routing new storm pipes on SE Clackamas Road to a new outfall on the downstream side of the Kellogg Creek crossing instead of into the wetland upstream of the crossing.

This project will be funded with resources from Clackamas County's American Rescue Plan Act (ARPA) grant award, as approved by the Board of County Commissioners in October 2022.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 3
ESTIMATE	\$770,000	\$1,743,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes: Project cost increases were related to inflation. This project is funded by ARPA. Any costs over allocated funds will be paid for from SW Construction fund.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	D	D/C	C	-	-	-

Total Project Cost³	\$ 1,743,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 1,743,000

³ Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: Idleman Conveyance

Project Subprogram: Watershed Protection

Current Project Phase: Planning

Project Fund: 649

Project Completion: 2031

Project Description:

The problem area is located on SE Idleman Road from SE 92nd Avenue east to SE Nicole Lane. SE Idleman Road slopes steeply at grades of 13% to 15% from east to west and has inconsistent use of curb and gutter. Areas without curbs have a raised asphalt lip which is insufficient to direct water into catch basins during heavy runoff, and the existing catch basins often clog and overflow. Water floods the roadway and neighboring properties. Flooding of private property is a frequent problem. Some driveways slope from the street, providing a direct path for runoff towards homes.

The purpose of this project is to improve conveyance and collection infrastructure along SE Idleman Road. The improvements will direct runoff into the storm system and prevent flooding of the roadway and the yards of homes along the road. The project will construct curbs, gutters, and catch basins along SE Idleman Road between SE 92nd Avenue and SE 99th Court. Curbs already exist on SE Idleman at both ends of the project, and the improvements will require widening the road five feet on the south side to connect to these existing curbs. All catch basins along the project length will be replaced in order to align with the curb and gutter, and new storm pipe will be constructed along the south side of SE Idleman. These improvements may all be completed within existing right-of-way.

The project will also replace an existing inlet at SE Idleman and SE Nicole Lane that captures flow from a drainage ditch. The existing inlet will be replaced with a larger structure to prevent clogging. The project will require coordination with the Clackamas County Department of Transportation and Development.

Project Cost Estimate:

	Previous ¹	Current
DATE	N/A	08/24
CLASS²	N/A	Class 5
ESTIMATE	N/A	\$1,640,000

¹This project was not identified in previous CIP. ²Refer to 'Project Cost Updates' Section for classification definitions

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	-		D/C

Total Project Cost³	\$ 1,640,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 1,640,000

³Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: Sunnyside Place Culvert Replacement & Stream Restoration

Project Subprogram: Watershed Protection

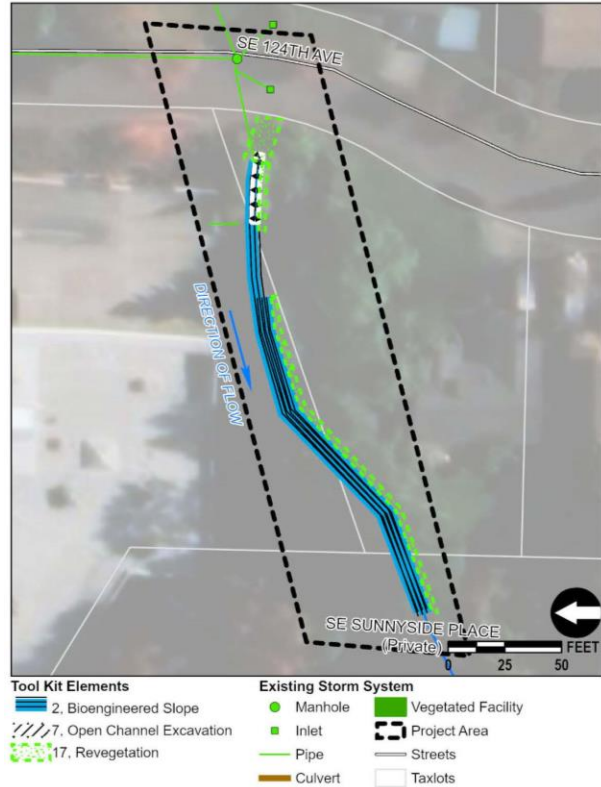
Current Project Phase: Planning

Project Fund: 649

Project Completion: 2029

Project Description:

The purpose of this project is to reduce flooding of SE 124th Avenue and protect the stream channel between SE 124th Avenue and SE Sunnyside Place. The project will stabilize the stream channel and uncover the buried outfall. Sediment at the SE 124th Avenue culvert outfall will be excavated to expose the downstream end of the pipe, and the stream banks will be stabilized and revegetated. These improvements will improve drainage out of the culvert and through the creek, reducing flooding at SE 124th Avenue.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$670,000	\$670,000

¹ This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Notes related to project cost estimate changes:

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	-	D	C

Total Project Cost³	\$ 670,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 670,000

³ Refer to Section Table 4 for a more detailed annual project cost breakdown

Project Name: NCRA Stormwater Plan

Project Subprogram: Watershed Protection

Project Fund: 649

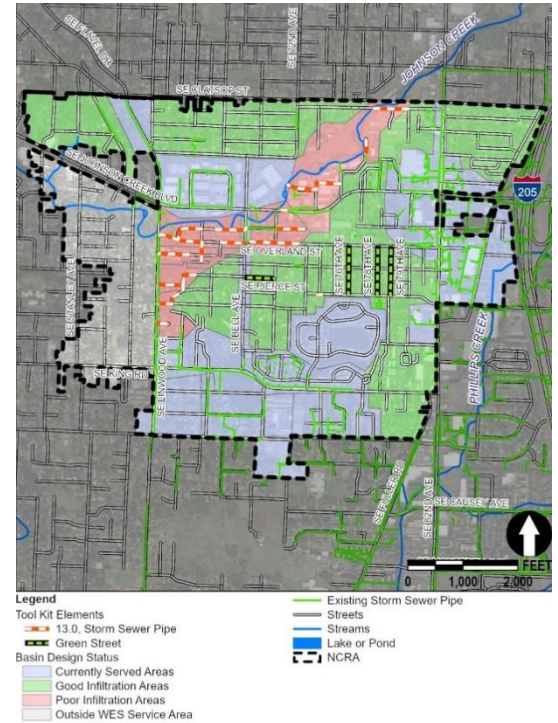
Current Project Phase: Planning

Project Completion: 2033

Project Description:

The North Clackamas Revitalization Area (NCRA) consists of approximately 1,008 acres of unincorporated Clackamas County between Milwaukie and I-205. In 2006, Clackamas County adopted the North Clackamas Urban Renewal Plan (plan) to improve infrastructure in the area. The County identified frequent flooding from Johnson Creek and inadequate street storm infrastructure as some of the conditions limiting redevelopment in NCRA. The plan is administered by the Clackamas County Development Agency.

About 10% of the area, including 199 tax lots, is within the 100-year floodplain of Johnson Creek, which floods frequently. Many streets in the area are not built to County standards and lack adequate storm water service, including curb and gutter for a proper drainage system. Among other goals, the plan authorized the Development Agency to fund improvements to storm facilities in the area to improve street drainage and assist in mitigating flood impacts. The purpose of this project is to develop a master plan for extending and improving stormwater infrastructure in the NCRA.



Project Cost Estimate:

	Previous ¹	Current
DATE	08/23	08/24
CLASS²	Class 5	Class 5
ESTIMATE	\$5,145,000	\$5,145,000

¹This estimate was identified in the previous CIP. ² Refer to 'Project Cost Updates' Section for classification definitions

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	-	P	P

Total Project Cost³	\$ 5,145,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 5,145,000

³ Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: SE 172nd Ditch Conveyance Improvement

Project Subprogram: Watershed Protection

Current Project Phase: Planning

Project Fund: 649

Project Completion: 2030

Project Description:

A drainage ditch flows along the west side of SE 172nd Avenue to a local low point at SE Wooded Heights Drive. There the ditch crosses SE 172nd Avenue through two culverts to a natural drainage through private property which connects to Rock Creek to the east. The ditch backs up at the culverts under SE 172nd Ave causing flooding over the roadway and into homeowners' yards. Based on visual observations, the culverts appear to be 18"-24" in diameter. The culverts and drainage downstream appear to have sufficient capacity. Vegetation growing at the inlets and outlets appears to be blocking the culverts causing the backup. As a result, the ditch overflows and floods the roadway and yards annually.

The purpose of this project is to reduce flooding and increase the conveyance capacity of the existing ditch along SE 172nd Avenue. The project will replace the culvert inlets with beehive grate manholes. These larger inlet structures will be less prone to clogging from vegetation, sediment, and debris. At the outlets, rip rap scour protection or concrete splash pads will be added to keep vegetation from restricting flows and to prevent erosion.

Project Cost Estimate:

	Previous ¹	Current
DATE	N/A	08/24
CLASS²	N/A	Class 5
ESTIMATE	N/A	\$100,000

¹This project was not identified in previous CIP. ²Refer to 'Project Cost Updates' Section for classification definitions

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	-	-	-	-		D/C

Total Project Cost³	\$ 100,000
Funding Source(s)	
Surface Water Construction Fund 649	\$ 100,000

³Refer to Table 4 for a more detailed annual project cost breakdown

Project Name: Restoration & Property Acquisition (Baseline Funding)

Project Subprogram: Watershed Protection

Project Fund: 649

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

WES puts a high value on stream restoration, habitat improvement, and floodplain management and sees these actions as part of its mission to protect and improve water quality. These projects maximize the ecological and stormwater benefits of properties and support numerous local and regional environmental goals. For the purposes of this program summary, restoration and property acquisition can include instream restoration, riparian revegetation, culvert replacement or repair for fish passage, and property acquisition.



The main challenges for these waterbodies include poor fish passage, changes to aquatic habitat conditions, flooding risks, lack of riparian vegetation, in-stream erosion and down cutting, and water quality concerns. The SSMP identified 13 locations where restoration and property acquisition projects would address these challenges. The Restoration and Property Acquisition budget is an annual baseline funding allocation to put toward restoration, revegetation, and culvert replacement efforts, as well as an allocation of funding for property acquisition that would support restoration efforts.

The restoration and property acquisition program would fund the following types of activities: In-stream habitat improvement such as channel enhancements or stabilization, or floodplain reconnections; Streamside property acquisition to protect existing valuable habitat from alteration; Culvert replacement or repair to re-introduce habitat to fish that had been previously cut off due to culverts that prevented passage; Revegetation of streamside properties to improve habitat for fish and aquatic invertebrates; and Streamside property acquisition to protect existing valuable habitat from alteration.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 3,769,600 ²
Funding Source(s)	
Surface Water Construction Fund 649	\$ 3,769,600 ²

¹ Refer to Section Table 4 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Stormwater Pond Repair and Rehabilitation Program

Project Subprogram: Watershed Protection

Project Fund: 649

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

WES owns or operates 621 stormwater facilities that reduce pollutants in stormwater runoff and/or control flows prior to discharge to a natural wetland, stream, or river. These facilities also help reduce erosive runoff, or drainage hydromodification, in stream channels. Of those facilities, 58 are currently in need of repair or rehabilitation. These facilities need routine inspection and maintenance, as well as eventual rehabilitation, to ensure functionality and maximize their useful life.



The Stormwater Pond Repair and Rehabilitation Program provides a clear budget line for these assets that are critical to meeting water quality goals and to protecting conveyance infrastructure downstream. Associated costs include project management, mobilization, traffic control, erosion controls, and surface restoration. To keep up with maintenance needs, WES is planning to fund the repair and rehabilitation of 10% of all facilities every five years.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 2,055,000 ²
Funding Source(s)	
Surface Water Construction Fund 649	\$ 2,055,000 ²

¹ Refer to Table 4 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Water Quality Retrofit Program

Project Subprogram: Watershed Protection

Project Fund: 649

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

Within the WES surface water service area, water quality has been significantly degraded from pre-development conditions in some areas due to land use changes, hydromodification, and untreated runoff from impervious surfaces. Water quality retrofits generally include new facilities in unserved areas or enhancements which add or increase water quality treatment within existing stormwater infrastructure. New facilities serving existing impervious surfaces may be placed in the right-of-way or on public property. Enhancements of existing facilities could include installation of cartridge filter systems, conversion of swales to rain gardens or wet ponds, and other improvements to stormwater facilities or conveyance systems where water quality treatment is either inadequate or can be significantly improved.

The National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit requirements may change in the future and require additional water quality monitoring and retrofits to the existing storm system to improve water quality.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 845,900 ²
Funding Source(s)	
Surface Water Construction Fund 649	\$ 845,900 ²

¹ Refer to Table 4 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Small Drainage Projects Program

Project Subprogram: Watershed Protection

Project Fund: 632/649

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

Providing regular maintenance to existing stormwater infrastructure is important to proper asset management. The Storm System Master Plan (SSMP) grouped similar drainage issues together. Projects within the Small Drainage Program correct nuisance drainage issues and include small pipe conveyance, upgrading manholes and inlets, and small pipe lining and root removal.



The Small Drainage Projects Program improves drainage issues when flooding is caused by WES-owned stormwater infrastructure. These projects support WES’s goal of proactively addressing performance deficiencies or enhancements and decrease the number of customer service requests. The SSMP identified 32 instances where a new inlet or manhole is needed, three instances of root removal in small pipe, and identified 3,000 linear feet of 18” (or smaller) pipe that could be installed to address some flooding and ponding issues through a given year. The Small Drainage Project Program is intended to provide steady annual funding so that WES can both reactively and proactively address small flooding and drainage issues in a timely manner.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 500,000²
Funding Source(s)	
Sewer SDC Fund 632	\$ 100,000 ²
Surface Water Construction Fund 649	\$ 400,000 ²

¹ Refer to Section Table 4 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: Small Storm System Emergency Repairs

Project Subprogram: Watershed Protection

Project Fund: 649

Current Project Phase: Recurring

Project Completion: Ongoing

Project Description:

This project includes repair of storm infrastructure such as pipes, manholes or catch basins that break and need immediate repair.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 500,000 ²
Funding Source(s)	
Sewer Construction Fund 639	\$ 500,000 ²

¹ Refer to Table 4 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure

Project Name: UIC Decommissioning/Retrofit Program

Project Subprogram: Watershed Protection

Current Project Phase: Recurring

Project Fund: 649

Project Completion: Ongoing

Project Description:

Underground Injection Controls (UICs) are systems that place fluids below the ground. The most common UICs in Oregon are stormwater drywells, which are usually found on large parking lot surfaces, according to the Department of Environmental Quality (DEQ). UICs for stormwater are most commonly used where connections to storm system infrastructure are not available.

Decommissioning or retrofitting UICs is necessary where the system is a known threat to groundwater quality. Under state regulatory requirements, WES has identified UICs with risk of polluting groundwater. The SSMP identified 10 drywells that intersect groundwater and are the focus of this Program.

Project Budget and Schedule:

P = Planning D = Design D/C = Design and Construction C = Construction R = Recurring

Fiscal Year (FY)	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Project Phase	R	R	R	R	R	R

Total Project Cost¹	\$ 212,000 ²
Funding Source(s)	
Surface Water Construction Fund 649	\$ 212,000 ²

¹ Refer to Table 4 for a more detailed annual project cost breakdown

² The total project cost represents projected spending over the next five years. Since this is a recurring programmatic cost, additional future spending beyond the next five years is not included in this figure



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Gail Shaloum
WES Advisory Committee | October 2024



RiverHealth Stewardship Program

Overview

- BCC resolution (2013)
- Funded by surface water fees (\$152K in 2013 and \$300K now)
- Improve watershed health:
 - Riparian functions
 - Treat runoff from pavement
 - Education to improve water quality.



Purpose

- Help us meet MS4 and TMDL requirements
- Involve the community in improving watershed health
- Help us get our work done!



WHO

Community groups, non-profits, businesses, and property owners

WHAT

Up to \$30,000 each

WHERE

WES Watershed Protection Areas

WHEN

Apply in spring

Grants run w/ fiscal year



Process

- Advertise February
- Proposals due April
- Selection committee review and evaluate proposals
- Usually fund about 75% of request



Example Projects

- Riparian restoration-watershed councils
- Volunteer planting events
- Outreach to recruit landowners
- Educational events
- HOA open spaces
- A few businesses involved
- Stream cleanup events
- ESC Plan for a community



Friends of Trees at Windswept Waters HOA



Happy Valley Natural Area Restoration



Rita's Reflections

- Required annual reporting to Board of County Commissioners
- Advisory Committee member helped us make the report more than just the numbers!

Rita's Reflections: Watershed Stewards in Action Rita Baker, WES Advisory Committee

Volunteers Come Together on the Clackamas River

It was a cold, windswept day at Windswept Waters Dr. (near SE Obsidian St., Happy Valley) in February as about 70 volunteers of all ages worked diligently to plant native plants on a cut bank slope adjacent to the Clackamas River. Meng Vue and Michelle Yasutake of Friends of Trees organized the tree planting near the confluence of Rock Creek and the Clackamas River. Friends of Trees partnered with the Windswept Waters HOA to enhance this important natural area in Clackamas County.

Along with native plants that will become an important understory to the trees (such as snowberry, red flowering currant and Oregon grape), Willamette ponderosa pines and Oregon white oak trees were planted. Willamette ponderosa pine is a hardy tree and better able to withstand increased heat that continues to occur in the summer months.

The work party came together again in April to mulch the plants and trees to support the non-irrigated specimens through the dry months of the year.

This site is situated at the top of a bluff right on the Clackamas River. The river is home to threatened and endangered species of salmon, and provides drinking water to over 360,000 people, so water quality is extremely important here! Vegetation in riparian areas protects water quality in several ways. Their roots hold in soil, preventing erosion and sedimentation of riverbeds; they provide shade to keep the water cool, essential for salmon survival; and they provide excellent habitat for native wildlife. When they mature and die, they continue providing habitat for both terrestrial species and fish!



It Takes a Village, Working Together

Andrew Voss looks over his herd of goats contentedly chewing through a dense thicket of weeds and Himalayan blackberries and sees a safe and environmentally friendly way to remove flammable invasive plants. This particular site on SE Alta Vista Drive in Happy Valley was a project spearheaded by Dale Guenther as one of the sites in his successful RiverHealth Stewardship Program grant funded by Clackamas Water Environment Services.

For this project, four Homeowners Associations partnered to restore nearly 20 acres of natural areas, primarily located in the headwaters of Mt. Scott Creek. Dale Guenther, a retired USFS Forester, has lent his expertise and worked with neighbors to get this restoration off the ground. This project exemplifies how volunteers can work together to improve water quality, habitat, and even aesthetics within their communities.

Baby male goats have a perilous place in the cheese-making process, as they have no utility. Rather than their usual fate as a meat product, Andrew puts them to use in improving the ecosystem with their voracious appetites undeterred by sharp prickles in the vegetation they consume.

While goats have a reputation for being escape artists, Andrew says that as long as they have a job to do, they will remain where they are needed. They are thwarted from feasting on the tasty cambium on trees in their enclosure by a large bottle of hot sauce that Andrew applies when needed to deter them. In this way, the invasive plants can be removed without using herbicides.

As each summer brings more destructive wildfires impacting people, native plants, and animals, using goats to remove flammable invasive plants offers a potential solution to the problem.



Accomplishments

2013-2024

# grants	111
# students or volunteers participated	22,000
length of stream worked on, lf	251,000
acres of project area	1,090
acres invasives removed	850
# trees planted	36,450
# shrubs planted	134,720



How you can get involved

- Grant funded volunteer events listed on County Events:
<https://www.clackamas.us/events>

The screenshot shows the Clackamas County website's 'Calendars and Events' page. The header includes the Clackamas County logo and navigation links for Translate, Jobs, Events, News, Contact Us, and social media icons. Below the header, there are tabs for COMMUNITY, BUSINESS, DEPARTMENTS, OUR COUNTY, and I WANT TO... The main content area is titled 'Calendars and Events' and features a navigation bar with tabs for ALL EVENTS, PUBLIC NOTICES, FAMILIES AND KIDS, PUBLIC MEETINGS, TRAINING AND EDUCATION, and VOLUNTEER OPPORTUNITIES. The main content displays a list of events for various dates, including Saturday, October 26, Saturday, November 2, Saturday, November 23, Saturday, February 8, and Saturday, March 8. Each event entry includes the department name (Water Environment Services), the time, and the event title. A search sidebar on the right allows users to search for events by department (currently set to WES) and start date. The sidebar also includes a search input field and an 'APPLY' button.





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Thank you

*Rita Baker, Christopher Bowker, Todd Loggan,
Carole Ann Churchill, Galen Hoshovsky, Alexa Morris,
...and Ron Wierenga*

RiverHealth Stewardship Program Grant Accomplishments 2023-24



History

The Clackamas Water Environment Services (WES) Board of Directors authorized the RiverHealth Watershed Stewardship Program (RHSP) and process for awarding grant funding to community groups for projects that enhance the health of District watersheds in a resolution on November 14, 2013 (Board Resolution 2013-92). The Board authorized the WES Director to develop, administer and expend funds for the program and directed that a report regarding the same be delivered to the Board annually.

The Program

The RHSP supports community groups, businesses and property owners who work to improve the health of WES watersheds. The RHSP can provide up to \$30,000 for projects that protect and enhance water resources in the District and/or provide watershed education and outreach. Stewardship grants are awarded annually. Citizen groups, businesses, schools, nonprofits, student groups, faith organizations, neighborhood or business associations, and service groups working to improve watershed health are eligible to apply. Examples of eligible projects include riparian restoration, stormwater features, habitat improvements, and education and stewardship events.

Each year, WES staff prepare a program guide and submittal forms for organizations to apply for these funds, advertise the information, accept proposals and evaluate them with a selection committee, and monitor project progress. Project proposals are solicited in the spring and awarded at the beginning of the fiscal year in July. The proposals are evaluated according to established criteria. Through this program, grantees have conducted outreach to neighborhood groups, schools and stream-side landowners, and worked with volunteers to improve watershed health through riparian planting projects. As the demand has grown, with budget approval from the Board, WES has increased the annual funding amount to the program from \$152,000 in the first year to \$300,000.

The projects have helped the District meet state and federal regulatory requirements to reduce pollution and improve the health of waterways. At the same time, the projects engage residents in stewardship, educating them about watershed health and encouraging them to take action on their own to improve water quality.

Clackamas Water Environment Services produces clean water, protects water quality and recovers renewable resources. We do this by providing wastewater services, stormwater management, and environmental education. It's our job to protect public health and support the vitality of our communities, natural environment and economy.



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The following organizations received a combined total of \$300,000 in grant funds in 2023-24

Bob's Red Mill (\$26,473) - Restored 4.5 acres of the Mill's End Wetland by controlling invasive species and planting native vegetation to improve habitat and water quality.

Clackamas River Basin Council (\$29,811) - Controlled noxious weeds on 12.5 acres of riparian habitat and 1,200 linear feet of river and streams. The grant also funds Shade Our Streams stakeholder engagement.

Columbia Land Trust and Bird Alliance of Portland (\$18,135) - Worked with residents to reduce or eliminate the use of pesticides, remove weeds, and plant native vegetation through its Backyard Habitat Program.

Friends of Trees (\$30,000) - Educated and empowered landowners and engaged youth through hands-on stewardship and environmental education experiences.

Happy Valley Heights HOA (\$29,361) - Collaborated with four homeowner associations on riparian treatments to mitigate stormwater runoff impacts from increased impervious areas.

Johnson Creek Watershed Council (\$29,490) - Engaged 200 volunteers and six community partners in the Johnson Creek Clean-Up, 300 volunteers in Watershed Wide, and led two events: Watershed Discovery Day and Science in the Park.

Lower Columbia Estuary Partnership (\$26,996) - Designed a stormwater retrofit facility that captures and treats stormwater from the Sunnyside Elementary back parking lot. Engaged students in design.

North Clackamas Watersheds Council (\$29,995) - Provided training for landowner stewardship to participants in the Streamside Stewards Program, restoring vital riparian conditions in the Kellogg-Mt. Scott Watershed.

Northwest Youth Corps (\$27,000) - Introduced girls ages 15-24 from diverse ethnic and income backgrounds to natural resource-based service. Through activities with Friends of Trees, youth earned money as they worked outdoors, increasing their understanding of nature through daily environmental lessons, and acquiring academic credit at their home school.

Tualatin River Watershed Council (\$26,955) - Engaged streamside landowners in riparian forest restoration and developed partnerships to improve water quality and wildlife habitat.

West Linn-Wilsonville School District (\$16,740)

Engaged West Linn High School students in the Environmental Science Career & Technical Education program to train Riverside High School students to remove invasive species and plant native vegetation along 200 linear feet of the Tualatin River. High School students led restoration work with Stafford Primary 5th graders and instructed them on watershed health.

World Salmon Council (\$9,000) - Provided environmental education that combined classroom and online curriculum, field learning, and community service, incorporating innovative learning activities to enhance student's critical thinking and problem-solving skills.



Northwest Youth Corps in the field

RiverHealth Stewardship Program Grant Accomplishments 2023-24

Riparian Restoration Projects

New acres planted	12
Number of sites	39
Acres of invasives removed	34
Acres of riparian area worked on	83
Linear feet of streams worked on	12,987
Planted trees	3,847
Planted shrubs	8,425
Planted herbaceous vegetation	275
Number of recruited volunteers	1,265
Volunteer hours	2,354



Watershed Wide event



Science in the Park

Education Projects

Number of lessons, field trips, tours	87
Number of events open to the public	35
Number of adults reached	461
Number of students reached	1,818

Rita's Reflections: Watershed Stewards in Action

Rita Baker, WES Advisory Committee

Volunteers Come Together on the Clackamas River

It was a cold, windswept day at Windswept Waters Dr. (near SE Obsidian St., Happy Valley) in February as about 70 volunteers of all ages worked diligently to plant native plants on a cut bank slope adjacent to the Clackamas River. Meng Vue and Michelle Yasutake of Friends of Trees organized the tree planting near the confluence of Rock Creek and the Clackamas River. Friends of Trees partnered with the Windswept Waters HOA to enhance this important natural area in Clackamas County.

Along with native plants that will become an important understory to the trees (such as snowberry, red flowering currant and Oregon grape), Willamette ponderosa pines and Oregon white oak trees were planted. Willamette ponderosa pine is a hardy tree and better able to withstand increased heat that continues to occur in the summer months.

The work party came together again in April to mulch the plants and trees to support the non-irrigated specimens through the dry months of the year.

This site is situated at the top of a bluff right on the Clackamas River. The river is home to threatened and endangered species of salmon, and provides drinking water to over 360,000 people, so water quality is extremely important here! Vegetation in riparian areas protects water quality in several ways. Their roots hold in soil, preventing erosion and sedimentation of riverbeds; they provide shade to keep the water cool, essential for salmon survival; and they provide excellent habitat for native wildlife. When they mature and die, they continue providing habitat for both terrestrial species and fish!



It Takes a Village, Working Together

Andrew Voss looks over his herd of goats contentedly chewing through a dense thicket of weeds and Himalayan blackberries and sees a safe and environmentally friendly way to remove flammable invasive plants. This particular site on SE Alta Vista Drive in Happy Valley was a project spearheaded by Dale Guenther as one of the sites in his successful RiverHealth Stewardship Program grant funded by Clackamas Water Environment Services.

For this project, four Homeowners Associations partnered to restore nearly 20 acres of natural areas, primarily located in the headwaters of Mt. Scott Creek. Dale Guenther, a retired USFS Forester, has lent his expertise and worked with neighbors to get this restoration off the ground. This project exemplifies how volunteers can work together to improve water quality, habitat, and even aesthetics within their communities.

Baby male goats have a perilous place in the cheese-making process, as they have no utility. Rather than their usual fate as a meat product, Andrew puts them to use in improving the ecosystem with their voracious appetites undeterred by sharp prickles in the vegetation they consume.

While goats have a reputation for being escape artists, Andrew says that as long as they have a job to do, they will remain where they are needed. They are thwarted from feasting on the tasty cambium on trees in their enclosure by a large bottle of hot sauce that Andrew applies when needed to deter them. In this way, the invasive plants can be removed without using herbicides.

As each summer brings more destructive wildfires impacting people, native plants, and animals, using goats to remove flammable invasive plants offers a potential solution to the problem.

