

CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS
Acting as the Governing Body of Clackamas Water Environment Services

Policy Session Worksheet

Presentation Date: January 24, 2024 **Approx. Start Time:** 11:00AM **Approx. Length:** 60 minutes

Presentation Title: Water Environment Services FY 2024/25 – 2028/29 Capital Improvement Plan

Department: Water Environment Services (WES)

Presenters: Greg Geist, Director & Jeff Stallard, Capital Program Manager

WHAT ACTION ARE YOU REQUESTING FROM THE BOARD?

Adoption of the Water Environment Services FY 2024/25 – 2028/29 Capital Improvement Plan (CIP).

EXECUTIVE SUMMARY:

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's our job to protect public health and support the vitality of our communities, natural environment, and economy.

WES operates and maintains more than 358 miles of sanitary sewers, interceptors and force mains, twenty-three wastewater pumping stations, and five water resource recovery facilities. WES is also responsible for surface water management facilities within its service area and coordinating with partner jurisdictions who are co-permittees under a jointly-issued municipal stormwater permit.

WES' Capital Improvement Plan (CIP) is a rolling five-year plan that 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.

The WES FY 2024/25 – 2028/29 CIP was presented to the WES Advisory Committee for consideration in September 2023 and November 2023. The Advisory Committee unanimously recommended adoption of the plan by the District Board.

The proposed 5-year CIP for the wastewater system is estimated at \$239.8 million and includes the recommendations of several planning documents prepared by WES capital delivery staff and their consultants. The proposed 5-year CIP for surface water is \$19.8 million.

FINANCIAL IMPLICATIONS (current year and ongoing):

Is this item in your current budget? YES NO

What is the cost?

The projected cost of the 5-year Wastewater CIP is \$239.8M and the projected cost of the 5-year Surface Water CIP is \$19.8M.

What is the funding source?

Existing construction and system development charge fund reserves would be utilized to finance the first two years of the plan. It is projected that debt financing will be needed for wastewater capital projects starting in FY 2025/26, and for surface water capital projects starting in FY 2027/28.

STRATEGIC PLAN ALIGNMENT:

- How does this item align with your Department’s Strategic Business Plan goals?
This is consistent with WES’ Performance Clackamas Plan for the Capital Program which is to strategically plan for, design, and construct infrastructure projects that are cost-effective, sustainable, resilient, and reliable to protect clean water and support a vibrant economy. The CIP advances several key strategic results including key milestones for the Tri-City Outfall, Intertie 2 Pump Station, and 3-Creeks Water Quality Projects.
- How does this item align with the County’s Performance Clackamas goals?
Supports the County’s strategic priority of building strong infrastructure as evidenced by improvement in infrastructure condition.

LEGAL/POLICY REQUIREMENTS:

An adopted CIP is a prerequisite for the establishment of system development charges per ORS 223.309 “Preparation of a plan for capital improvements financed by system development charges”. The CIP and associated Financial Strategy are also a key driver of WES’ 2024-25 budget that will be developed and presented to the District Board in the spring of 2024.

PUBLIC/GOVERNMENTAL PARTICIPATION:

Presentation to the WES Advisory Committee on September 14, 2023 and unanimous support (for recommended adoption of the plan by the District Board) on November 9, 2023.
Presentation to the Technical Advisory Team on September 21, 2023 with document review by group.

OPTIONS:

1. Direct staff to bring the 5-year CIP to a future business meeting for adoption as proposed.
2. Direct staff to bring the 5-year CIP to a future business meeting for adoption with modifications as discussed during the policy session.
3. Do not adopt the 5-year CIP.



RECOMMENDATION:

Staff recommends Option 1, Direct staff to bring the 5-year CIP to a future business meeting for adoption as proposed.

ATTACHMENTS:

Water Environment Services FY 2024/25 – 2028/29 Capital Improvement Plan.

SUBMITTED BY:

Division Director/Head Approval 
 Department Director/Head Approval 
 County Administrator Approval _____

For information on this issue or copies of attachments, please contact Chris Koontz @ 503-679-4034



Policy Session: January 24, 2024

Presenters: Greg Geist, Director & Jeff Stallard, Capital Program Manager

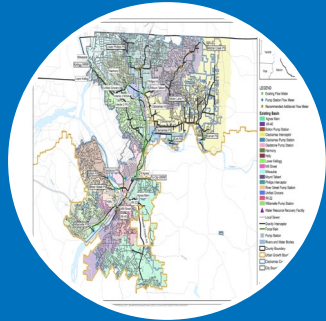


WES' Capital Improvement Plan FY 2024/25 – 2028/29

CIP is Based on Thoughtful Planning



Hoodland Master Plan
2017



Sanitary System Master Plan
2019



Boring Facilities Plan
2020



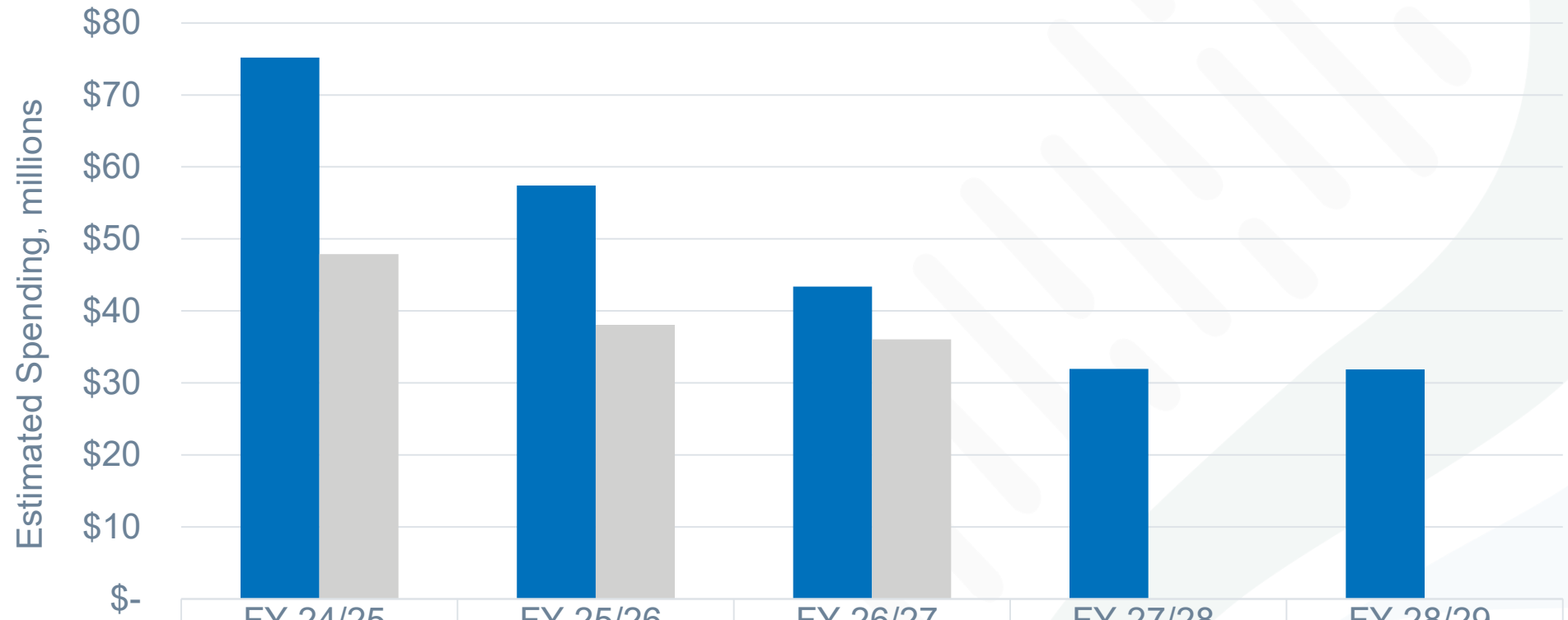
Willamette Facilities Plan
2021



Storm System Master Plan
2023

← WES' Capital Improvement Plan →

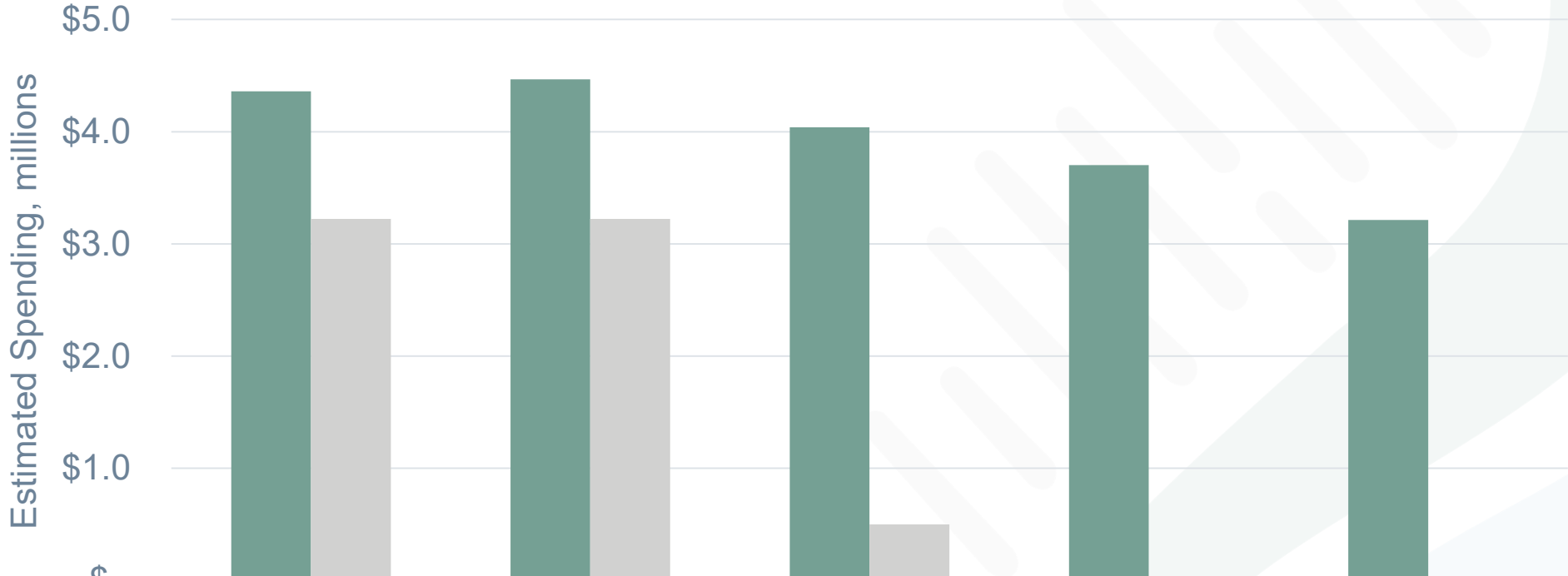
Wastewater CIP Projected Annual Spending



	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29
■ Proposed CIP FY 2024/25 - 2028/29	\$75.19	\$57.40	\$43.37	\$31.95	\$31.87
■ Adopted CIP FY 2022/23 - 2026/27	\$47.90	\$38.05	\$36.05	\$-	\$-
<i>Extended long-term capital spending projections developed with Adopted CIP</i>				\$32.33	\$33.25



Surface Water CIP Projected Annual Spending



	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29
■ Proposed CIP FY 2024/25 - 2028/29	\$4.36	\$4.47	\$4.04	\$3.70	\$3.21
■ Adopted CIP FY 2022/23 - 2026/27	\$3.22	\$3.22	\$0.50	\$-	\$-



Tri-City WRRF Outfall Project - \$66.4M

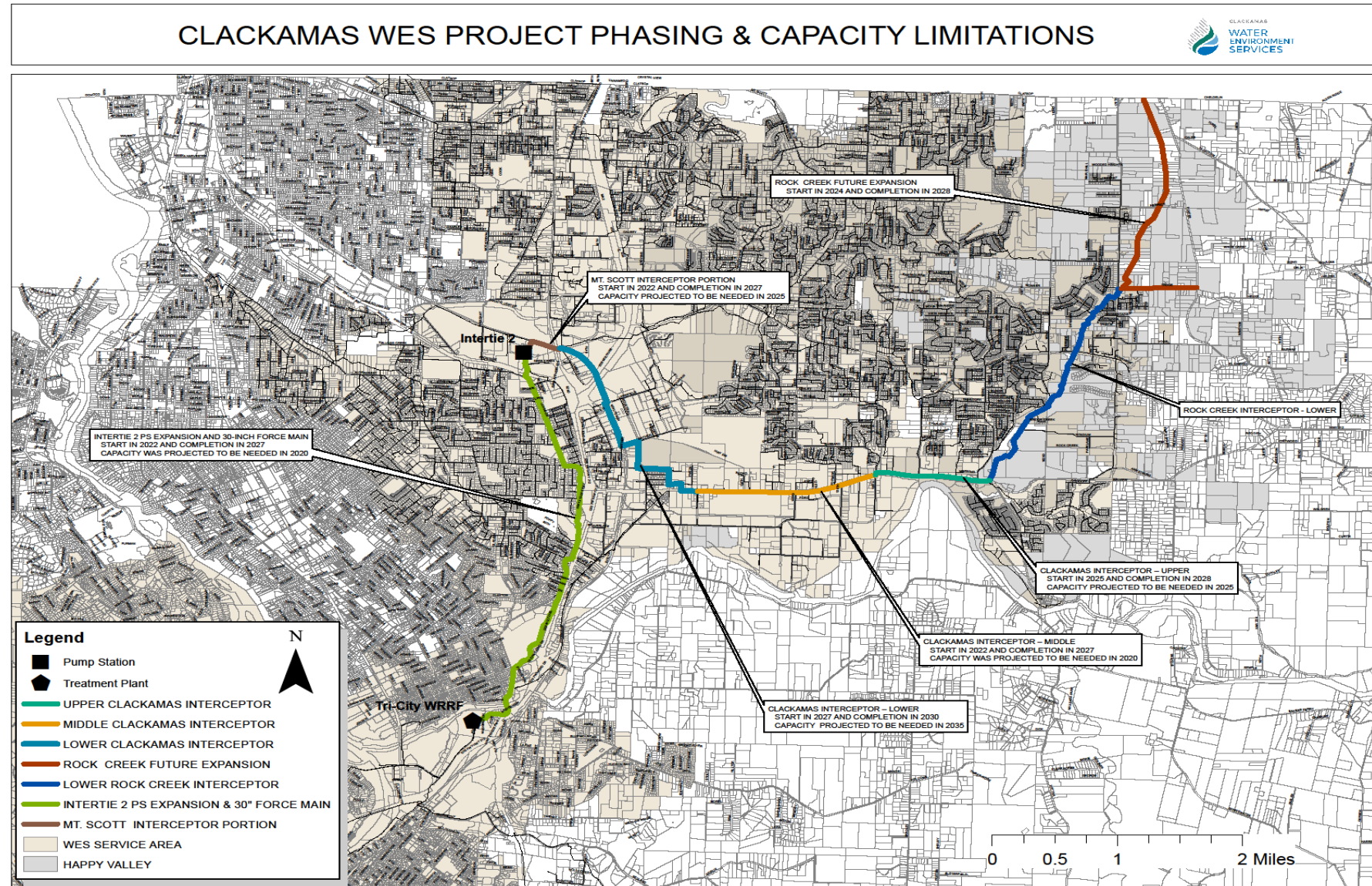


- Progressive Design-Build delivery
- Construction to begin spring 2024 and will be coordinated with the I-205 Bridge Project.
- Combination of two outfalls will provide build out capacity
- New outfall in service 2026

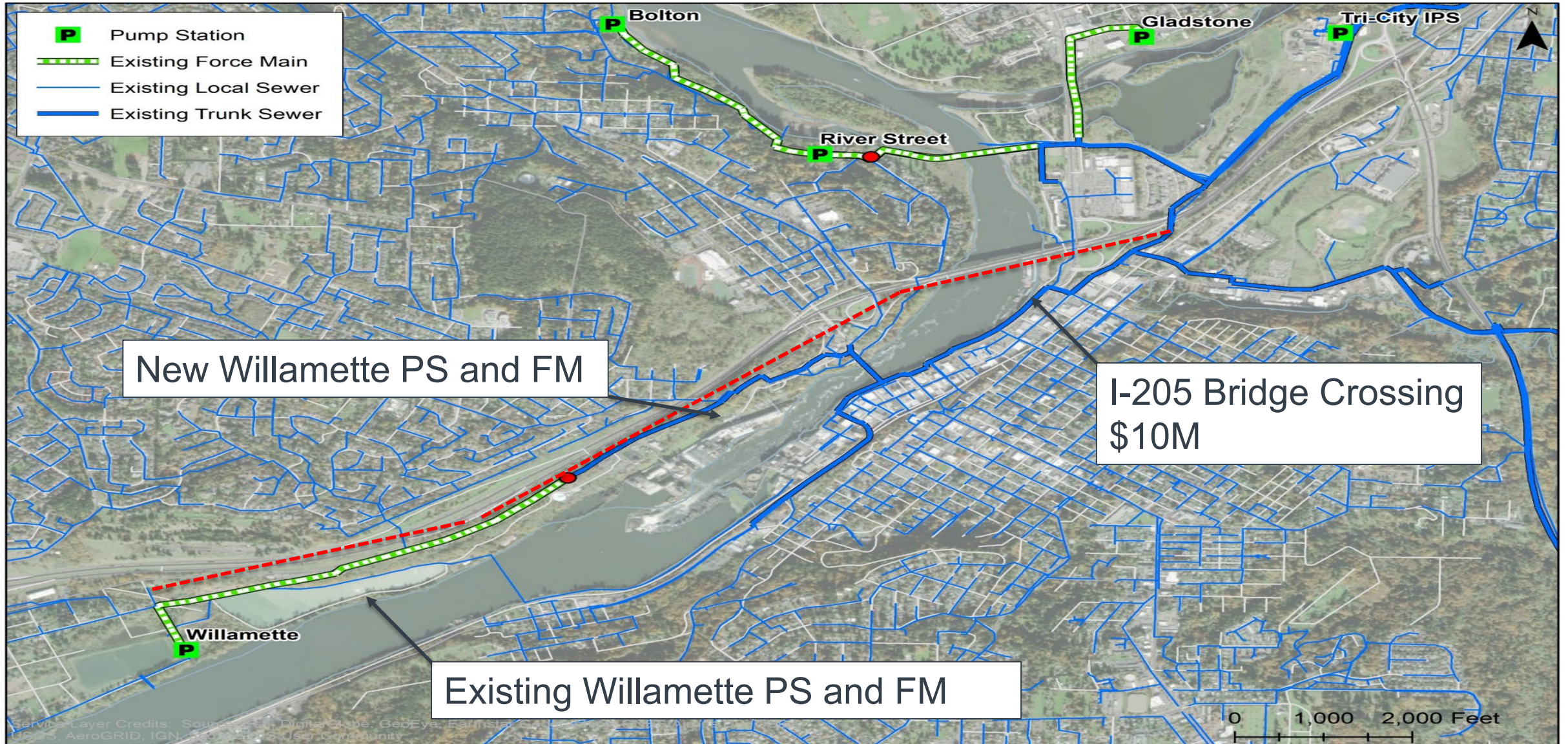


Clackamas Interceptor Program - \$46M

- Three Clackamas Interceptor segments (Upper, Middle, Lower)
- Mt Scott Interceptor
- Project is Under Design and will be built in 3 phases



Willamette Interceptor Program - \$30.4M



Ongoing Programs – \$1.8M

- Programs Include

- Treatment Plant Rehab and Replacement
- Pump Station Rehab and Replacement
- Collection System Rehab

- Collection System projects are identified using CCTV data and condition assessment information and then prioritized based on risk.

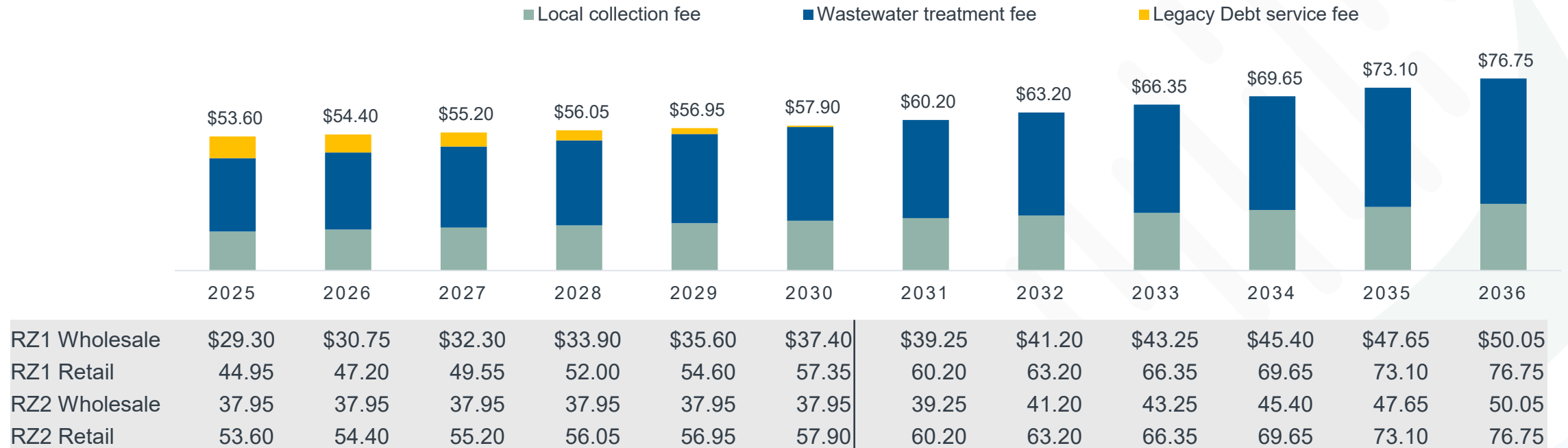


Financial Planning and Rate Impact

Planning Component	Adopted FY 2022-2027 CIP	Projections included in FY 2023/24 Budget	Proposed FY 2025-2029 CIP
5-Year Sewer CIP	\$192.0 million	\$215.2 million	\$239.8 million
5-Year Surface Water CIP	\$9.2 million	\$17.9 million	\$19.8 million
Projected annual monthly rate increases	5% Sewer / ~5.25% Surface Water		
Economic assumptions	~5% annual increase in operating and maintenance costs ~1% annual population growth		
Debt financing	Sewer – FY 26/27	Sewer – FY 27/28 Surface Water – FY 28/29	Sewer – FY 25/26 Surface Water – FY 27/28
Financing assumptions	25-Year Term	25-Year Term	30-Year Term
Projected annual SDC increases	Inflationary only		



Forecasted Sewer Rates over 12-year Capital Planning Horizon

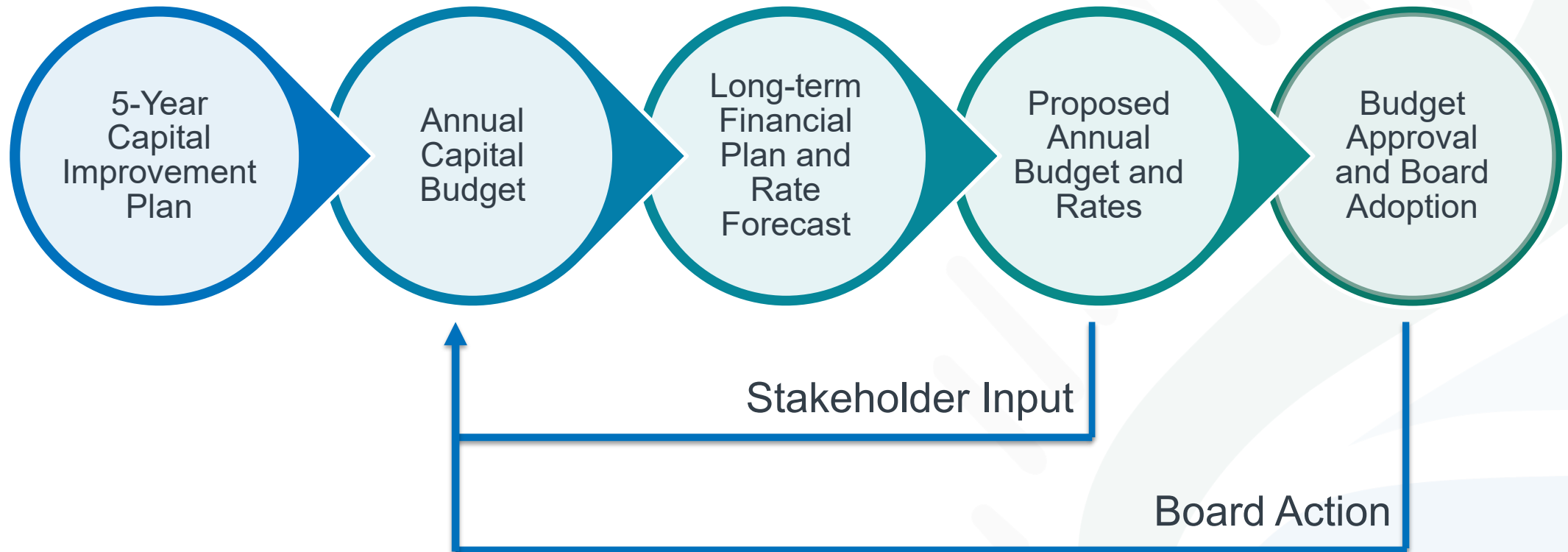


Forecasted Rate Zone 2 Surface Water Rates over 12-year Capital Planning Horizon



Financial Planning and Rate Impact

Connection between CIP, Budget, and Rates



Summary and Next Steps

- FY 2024/25 – 2028/29 total Wastewater CIP of \$239.8 Million, Surface Water CIP of \$19.8 Million.
- Motion of Support Received from WESAC at November 9th Meeting.
- Request for Adoption by the Board of County Commissioners of the Updated 5-year CIP.



PROPOSED

Fiscal Years 2024/25 – 2028/29

CAPITAL IMPROVEMENT PLAN

Water Environment Services



CLACKAMAS
WATER
ENVIRONMENT
SERVICES



Clackamas Water Environment Services

Fiscal Years 2024/25 - 2028/29

Capital Improvement Plan

Board of Directors

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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, Assistant Director

Jeff Stallard, Capital

Erin Blue, Financial Services

Matt House, Operations

Lauren Haney, Administration

Amanda Keller, Legal Counsel

Shelly Parini-Runge, External Affairs



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

Operations

- Plant Operations and Maintenance
- Resource Recovery
- Field Operations and Maintenance

Capital

- Planning and Capital Delivery
- Asset Management

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 2024/25 - 2028/29 (FY 24/25 - 28/29) 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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CAPITAL IMPROVEMENT PROGRAM OVERVIEW

INTRODUCTION

The Water Environment Services Board of Directors adopts the annual budget for WES. The goal of this document 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.

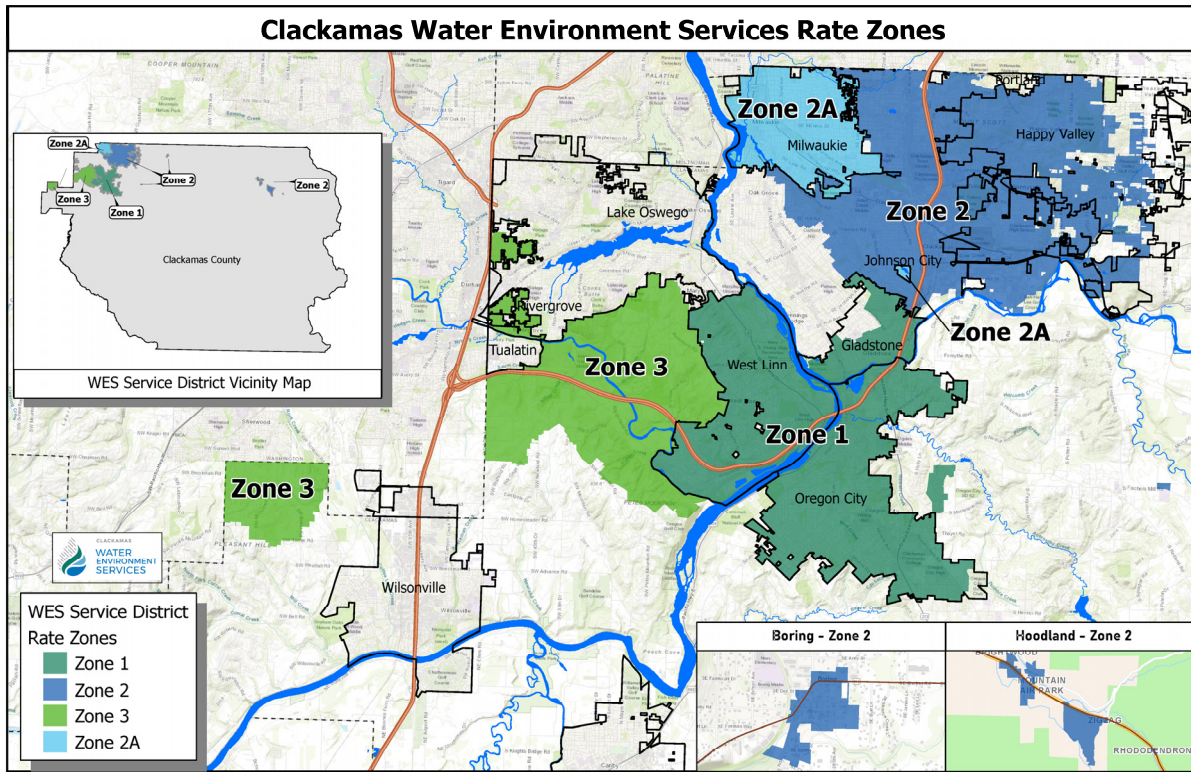
BACKGROUND

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 Pollution Discharge Elimination System (NPDES) permits that allow wastewater that is treated and cleaned to be discharged (effluent) to rivers in the state of Oregon. WES treats 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. Though, WES owns 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 pipe, 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 areas encompasses 63 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

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 Water Resource Recovery Facility (Tri-City WRRF), Kellogg Creek Water Resource Recovery Facility (Kellogg Creek WRRF), Hoodland Water Resource Recovery Facility (Hoodland WRRF), Boring Water Resource Recovery Facility (Boring WRRF) and Fischer's Forest Park Water Resource Recovery Facility (Fischer's Forest Park WRRF).

Tri-City WRRF, located in Oregon City, 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 2012 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 2021. 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. Because of its constrained site, it cannot be expanded 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 a 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 WRRF, serves 60 households and businesses within the Community of Boring. 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 WRRF 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 gravity drain field.

Surface Water

Clackamas Water Environment Services 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 WES' service area.

As the service area's population continues to increase, WES is committed to responsible stormwater management to keep waterways clean for people, fish, and wildlife. Unfortunately, many past drainage and stormwater management practices and regulations have proven inadequate to prevent runoff impacts to streams and groundwater. 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 with it 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 in 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’ 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 has had a significant impact on project delivery costs. To capture the significant impact of this record setting inflation, all of the project costs shown in this plan have been adjusted using the Engineering News Record 20-City Average Construction Cost Index through August 2023.

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 24/25 - FY 28/29 CIP was developed and projects prioritized as a result of coordination between the capital planning team and operations and maintenance staff.

SANITARY SEWER CIP

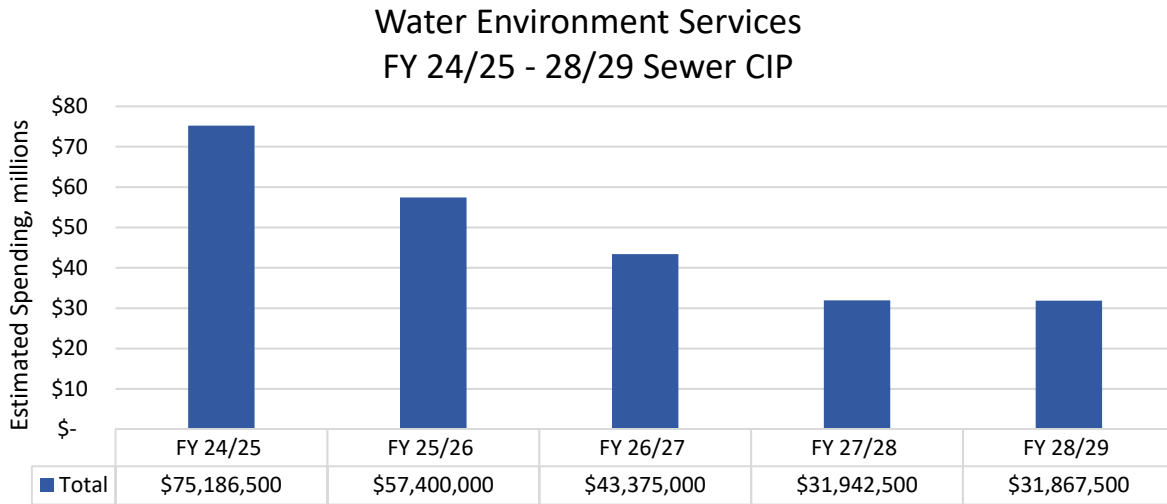
Sanitary sewer projects are organized according to their location and/or function. Project types are Treatment (Tri-City, Kellogg Creek, Hoodland, Boring, Fischer’s Forest Park), Collection System, Fleet, Asset Management and Pump Stations. Collection System projects include those for facilities designed, 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

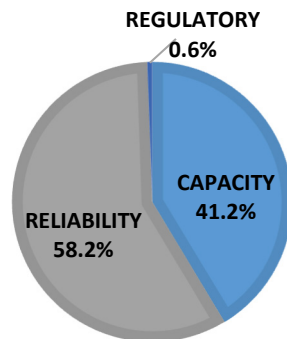
Project Type	Capital Spending, \$ Million					5-Year Total
	24/25	25/26	26/27	27/28	28/29	
Tri-City WRRF	\$ 36.95	\$ 24.35	\$ 10.00	\$ 11.01	\$ 16.57	\$ 98.88
Kellogg Creek WRRF	2.46	3.20	2.14	4.90	3.10	15.80
Hoodland WRRF	0.00	0.25	0.00	0.00	0.00	0.25
Boring WRRF	2.00	0.00	0.00	0.00	0.00	2.00
Fischer Forest Park WRRF	0.20	0.00	0.00	0.00	0.00	0.20
Collection System	31.65	27.95	29.77	14.31	9.86	113.54
Fleet	0.51	0.70	0.47	0.61	0.67	2.96
Asset Management	0.80	0.80	0.80	0.80	0.80	4.00
Pump Stations	0.05	0.05	0.05	0.05	0.05	0.25
Water Quality Lab	0.47	0.00	0.04	0.17	0.72	1.40
Development Review	0.10	0.10	0.10	0.10	0.10	0.50
Total	\$ 75.19	\$ 57.40	\$ 43.37	\$ 31.95	\$ 31.87	\$ 239.78

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



Some of the 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’ 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 2024-25 MAJOR PROJECTS

Of the \$75.4 million in FY 24/25 planned capital spending, nearly \$53 million is expected to be spent on the following projects:

Tri-City WRRF Outfall Project - \$30.0 million

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 will be in a location that will provide improved mixing over the existing outfall and have 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 complete in FY 2026.

Intertie 2 Pump Station and 30-inch Force Main Project - \$8.0 million

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 Sanitary Sewer Master Plan. 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 - \$9.2 million

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 WES' Tri-City WRRF. The pump station and force main were analyzed as part of WES' Sanitary Sewer Master Plan, 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 crossing is being constructed as part of the ODOT Abernethy Bridge project. Design of the remaining force main and a new pump station is now underway with a project completion expected in 2027.

Regional Infiltration/Inflow (I/I) Control Cost Share - \$5.6 million

The WES sanitary sewer capital plan is based on a 65% reduction of inflow and infiltration (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:

Kellogg Creek WRRF Projects: Estimated Spent to Date \$4.5 million

Work continues at Kellogg Creek with construction of three major projects being completed by October 2023. The two larger (14 MGD) influent pump station pumps are being replaced, along with their motors and drives. Secondary Clarifier rehabilitation including the replacement of the drives is ongoing. Lastly a project to re-coat the aeration basin concrete, replace gates and rehabilitate the aeration system components is in construction. When complete, the project will significantly improve process performance and reduce energy consumption.



Fischer’s Forest Park (FFP) Improvements – Estimated Spent to Date \$1.4 million



The FFP collection system discharges to a treatment system similar to a septic system. Both the collection and treatment systems are in need of significant rehabilitation. WES staff and consultants have completed the design process. The second phase of construction is underway and will replace the tanks and treatment system as well as provide an emergency back up generator. This project will be complete in 2023.

Tri-City WRRF Outfall Project – Estimated Spent to Date: \$4.5 million

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 with construction to commence in 2024 and be completed in 2026.



SANITARY SEWER PROJECT LIST BY PROJECT AREA

The following tables summarize 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’ annual budget and CIP development process, project planning estimates are updated to reflect the most current information and market conditions. Projected spending beyond the next five years may be subject to change. FY 29/30 – 35/36 projected costs in the tables below include spending only for projects included in the FY 24/25 – 28/29 CIP, and do not include projects with spending anticipated to commence in FY 29/30 or later.

TABLE 2. TRI-CITY WRRF PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	29,600,000	18,710,000	4,061,250	5,071,250	10,070,000	67,512,500	17,925,000	85,437,500
SS SDC	7,350,000	5,640,000	5,936,250	5,936,250	6,500,000	31,362,500	21,175,000	52,537,500
SW CONST	-	-	-	315,000	480,000	795,000	-	795,000
SW SDC	-	-	-	-	-	-	-	-
TOTAL	36,950,000	24,350,000	9,997,500	11,322,500	17,050,000	99,670,000	39,100,000	138,770,000

TABLE 3. KELLOGG CREEK WRRF PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	2,460,000	3,200,000	2,140,000	4,900,000	3,100,000	15,800,000	29,000,000	44,800,000
SS SDC	-	-	-	-	-	-	-	-
TOTAL	2,460,000	3,200,000	2,140,000	4,900,000	3,100,000	15,800,000	29,000,000	44,800,000

TABLE 4. HOODLAND WRRF PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	-	-	-	-	-	-	-	-
SS SDC	-	250,000	-	-	-	250,000	-	250,000
TOTAL	-	250,000	-	-	-	250,000	-	250,000

TABLE 5. BORING WRRF PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	2,000,000	-	-	-	-	2,000,000	8,000,000	10,000,000
SS SDC	-	-	-	-	-	-	-	-
TOTAL	2,000,000	-	-	-	-	2,000,000	8,000,000	10,000,000

TABLE 6. FISCHER FOREST PARK WRRF PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	200,000	-	-	-	-	200,000	-	200,000
SS SDC	-	-	-	-	-	-	-	-
TOTAL	200,000	-	-	-	-	200,000	-	200,000

TABLE 7. COLLECTION SYSTEM PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	14,250,000	12,125,000	10,900,000	4,050,000	5,050,000	46,375,000	12,250,000	58,625,000
SS SDC	17,400,000	15,825,000	18,875,000	10,260,000	4,810,000	67,170,000	19,150,000	86,320,000
TOTAL	31,650,000	27,950,000	29,775,000	14,310,000	9,860,000	113,545,000	31,400,000	144,945,000

TABLE 8. FLEET SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	509,000	700,000	470,000	605,000	665,000	2,949,000	4,499,000	7,448,000
SS SDC	-	-	-	-	-	-	-	-
TOTAL	509,000	700,000	470,000	605,000	665,000	2,949,000	4,499,000	7,448,000

TABLE 9. ASSET MANAGEMENT PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	800,000	800,000	800,000	800,000	800,000	4,000,000	5,600,000	9,600,000
SS SDC	-	-	-	-	-	-	-	-
TOTAL	800,000	800,000	800,000	800,000	800,000	4,000,000	5,600,000	9,600,000

TABLE 10. PUMP STATION PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	50,000	50,000	50,000	50,000	50,000	250,000	350,000	600,000
SS SDC	-	-	-	-	-	-	-	-
TOTAL	50,000	50,000	50,000	50,000	50,000	250,000	350,000	600,000

TABLE 11. WATER QUALITY LAB PROJECT SUMMARY

FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SS CONST	467,500	-	42,500	170,000	722,500	1,402,500	-	1,402,500
SS SDC	-	-	-	-	-	-	-	-
SW CONST	82,500	-	7,500	30,000	127,500	247,500	-	247,500
SW SDC	-	-	-	-	-	-	-	-
TOTAL	550,000	-	50,000	200,000	850,000	1,650,000	-	1,650,000

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 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 ten-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 Retrofit
- Restoration and Property Acquisition
- Underground Injection Control (UIC) Decommissioning/Retrofit

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 ten 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. They also help reduce erosive runoff, or hydromodification, in stream channels. Repairs and rehabilitations are required by the municipal stormwater permit issued to WES and the cities it covers with stormwater services by Oregon Department of Environmental Quality.

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. A retrofit is like a remodel. Water quality retrofits generally include new facilities in unserved areas or enhancements which add or increase water quality treatment within existing storm 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.

Water quality retrofits are located primarily in areas that have been urbanized for many years, as these areas were often developed with little or no water quality treatment and contribute disproportionately to water quality degradation. The focus is on areas with no treatment, followed by those with outdated treatment facilities.

Water quality retrofit projects are prioritized based on the severity of the project need and the value they provide. Retrofit projects help meet WES's NPDES permit requirements, support water quality goals, and support WES's 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. The area around the manhole will be restored to match the directly adjacent surfaces, either lawn or pavement. 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.

Instream Restoration: 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. Priority is given to projects that directly benefit streams to address elevated water temperatures.

Instream habitat improvement projects are usually very cost effective methods to improve stream habitat and function where past impacts have been significant. In-stream habitat improvement projects often rely on the availability of grant funding or use remaining budget after regulatory requirements have been met.

Property Acquisition: 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 purchases are often costly and are dependent on the availability of willing sellers; however, preventing stormwater problems before they occur is among the most cost-beneficial means of managing stormwater impacts.

Property acquisitions are prioritized and pursued as opportunities are available. When possible, WES seeks to leverage capital funds with grant funds, and with partnership funds, such as from parks and open space programs. 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.

Riparian Vegetation: 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.

Tree planting projects typically have a fairly constant per-acre cost across all projects, so a cost/benefit analysis does not provide significant basis for prioritization. Priority is therefore given to projects that directly benefit streams where the Oregon Department of Environmental Quality (DEQ) has established water cleanup plans to address elevated water temperatures. At both levels, projects that support multiple program goals are given priority. In-stream habitat improvements are prioritized based on value, applicability to recovery plans, and the degree to which the project complements other planned stormwater projects within a drainage area.

Culvert Replacement or Repair: 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 culverts repairs/replacements 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 12. Surface Water Capital Spending by Project Type/Location

Project Type	Capital Spending, \$ Million					5-Year Total
	24/25	25/26	26/27	27/28	28/29	
SW Capital Projects	\$ 3.78	\$ 3.09	\$ 2.52	\$ 1.67	\$ 0.92	\$ 11.98
Stormwater Pond Repair and Rehabilitation Program	0.20	0.41	0.41	0.41	0.41	1.84
Restoration And Property Acquisition	0.00	0.65	0.65	0.82	0.82	2.94
Small Drainage Project Program	0.20	0.10	0.10	0.10	0.10	0.60
Emergency Repairs	0.10	0.10	0.10	0.10	0.10	0.50
Water Quality Retrofit Program	0.00	0.10	0.20	0.20	0.20	0.70
UIC Decommissioning/Retrofit Program	0.00	0.02	0.05	0.05	0.05	0.17
Tri-City WRRF	0.00	0.00	0.00	0.32	0.48	0.80
Water Quality Lab	0.08	0.00	0.01	0.03	0.13	0.25
Total	\$ 4.36	\$ 4.47	\$ 4.04	\$ 3.70	\$ 3.21	\$ 19.78

SURFACE WATER PROJECT LIST BY FUNDING SOURCE

TABLE 13. SUMMARY OF FUNDED SURFACE WATER PROJECTS								
FUNDING SOURCE	FY 24/25 PROJECTED \$	FY 25/26 PROJECTED \$	FY 26/27 PROJECTED \$	FY 27/28 PROJECTED \$	FY 28/29 PROJECTED \$	FY 24/25-28/29 PROJECTED \$	FY 29/30-35/36 PROJECTED \$	TOTAL FY 24/25-35/36 PROJECTED, \$
SW CONST	4,359,500	4,468,000	4,034,800	3,702,500	3,213,000	19,777,800	19,017,200	38,795,000
SW SDC	-	-	-	-	-	-	-	-
TOTAL	4,359,500	4,468,000	4,034,800	3,702,500	3,213,000	19,777,800	19,017,200	38,795,000

Appendix A

Sanitary Sewer Project Detail Sheets

PROJECT DETAIL

Project Name: Tri-City WRRF Wet Weather Expansion

Project Number: TBD

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 632/639

Project Completion: 2031

Project Status: Not Active

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.

Capital cost of the recommended facilities is estimated at \$49M and will continue beyond FY 29.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST					\$ 2,436,250	\$ 2,436,250	\$ 6,500,000	\$ 11,372,500	\$ 13,000,000	\$ 24,372,500
SDC					\$ 2,436,250	\$ 2,436,250	\$ 6,500,000	\$ 11,372,500	\$ 13,000,000	\$ 24,372,500
TOTAL					\$ 4,872,500	\$ 4,872,500	\$ 13,000,000	\$ 22,745,000	\$ 26,000,000	\$ 48,745,000

PROJECT DETAIL

Project Name: Tri-City WRRF Headworks Rehabilitation

Project Number: TBD

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 639

Project Completion: 2031

Project Status: Not Active

Project Description:

The Willamette Facilities Plan identified the need to refurbish the existing headworks at the Tri-City Water Resource Recovery Facility. The refurbishments identified in the plan to be further refined during design include replacing existing mechanical bar screens, rehabilitating piping and gates, repairing channel concrete, and rehabilitating the headworks structural building to be up to current code.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST				\$ 1,000,000				\$ 1,000,000	\$ 2,200,000	\$ 3,200,000
SDC										
TOTAL				\$ 1,000,000				\$ 1,000,000	\$ 2,200,000	\$ 3,200,000

PROJECT DETAIL

Project Name: Tri-City WRRF Rehabilitate Chlorine Contact Basins and Replace Gates **Project Number:** 700222312
Project Subprogram: Capital Delivery/Tri-City WRRF **Fund:** 639
Project Completion: 2027 **Project Status:** Active

Project Description:

The Willamette Facilities Plan (WFP) Condition Assessment identified two items related to the Tri-City facility chlorine contact basins (CCB). The first is the concrete inside the chlorine contact basins is showing signs of deterioration and recommended the surface be repaired and coated. 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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST			\$ 200,000		\$ 775,000			\$ 975,000		\$ 975,000
SDC										
TOTAL			\$ 200,000		\$ 775,000			\$ 975,000		\$ 975,000

PROJECT DETAIL

Project Name: Tri-City WRRF Primary Clarifier Rehabilitation

Project Number: 700221323 / P632324

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 639

Project Completion: 2026

Project Status: Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 826,000	\$ 6,000,000	\$ 5,000,000	\$ 5,000,000				\$ 10,000,000		\$ 16,826,000
SDC										
TOTAL	\$ 826,000	\$ 6,000,000	\$ 5,000,000	\$ 5,000,000				\$ 10,000,000		\$ 16,826,000

PROJECT DETAIL

Project Name: Tri-City WRRF Aeration Basin Improvements

Project Number: TBD

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 639

Project Completion: 2029

Project Status: Not Active

Project Description:

The aeration basins are original to the facility. The aeration system consists of valves and instrumentation to control the delivery of oxygen to the biological treatment process. The aeration system in the Tri-City aeration basins and the programming controls are antiquated and need to be replaced/updated. Doing so will vastly improve process performance and increase efficiency, significantly reducing power demand by the blowers. In addition to the control and process improvements, this project will also address any condition related deficiencies of the basin structural concrete and other ancillary systems.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST			\$ 250,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 3,650,000		\$ 3,650,000
SDC										
TOTAL			\$ 250,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 3,650,000		\$ 3,650,000

PROJECT DETAIL

Project Name: Tri-City WRRF Outfall **Project Number:** 700218312 / P632241
Project Subprogram: Capital Delivery/Tri-City WRRF **Fund:** 632/639
Project Completion: 2026 **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 3,495,960	\$ 15,600,000	\$ 23,400,000	\$ 9,360,000				\$ 32,760,000		\$ 51,855,960
SDC	\$ 986,040	\$ 4,400,000	\$ 6,600,000	\$ 2,640,000				\$ 9,240,000		\$ 14,626,040
TOTAL	\$ 4,482,000	\$ 20,000,000	\$ 30,000,000	\$ 12,000,000				\$ 42,000,000		\$ 66,482,000

PROJECT DETAIL

Project Name: Tri-City WRRF Rossman Landfill Mitigation Project

Project Number: TBD

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 632

Project Completion: 2028

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST										
SDC				\$ 500,000	\$ 3,500,000	\$ 3,500,000		\$ 7,500,000		\$ 7,500,000
TOTAL				\$ 500,000	\$ 3,500,000	\$ 3,500,000		\$ 7,500,000		\$ 7,500,000

PROJECT DETAIL

Project Name: Tri-City WRRF Influent Pump Station Expansion

Project Number: 700220311 / P632286

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 632/639

Project Completion: 2026

Project Status: Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 26,500	\$ 375,000	\$ 750,000	\$ 2,500,000				\$ 3,250,000		\$ 3,651,500
SDC	\$ 26,500	\$ 375,000	\$ 750,000	\$ 2,500,000				\$ 3,250,000		\$ 3,651,500
TOTAL	\$ 53,000	\$ 750,000	\$ 1,500,000	\$ 5,000,000				\$ 6,500,000		\$ 7,303,000

PROJECT DETAIL

Project Name: Tri-City WRRF Maintenance Building Relocation

Project Number: TBD

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 639/649

Project Completion: 2028

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
SEWER CONST						\$ 1,105,000		\$ 1,105,000		\$ 1,105,000
SEWER SDC										
SW CONST						\$ 195,000		\$ 195,000		\$ 195,000
SW SDC										
TOTAL						\$ 1,300,000		\$ 1,300,000		\$ 1,300,000

PROJECT DETAIL

Project Name: Tri-City Administration Building Remodel

Project Number: 700221310 / P632310

Project Subprogram: Capital Delivery/Tri-City WRRF

Fund: 639/649

Project Completion: 2029

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
SEWER CONST	\$ 79,000					\$ 680,000	\$ 2,720,000	\$ 3,400,000		\$ 3,479,000
SEWER SDC										
SW CONST	\$ 79,000					\$ 120,000	\$ 480,000	\$ 600,000		\$ 679,000
SW SDC										
TOTAL	\$ 158,000					\$ 800,000	\$ 3,200,000	\$ 4,000,000		\$ 4,158,000

PROJECT DETAIL

Project Name: Lab **Project Number:** Various
Project Subprogram: Capital Delivery/Lab **Fund:** 639/649
Project Completion: 2029 **Project Status:** Active

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 be completed in 2029.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
SEWER CONST	\$ 34,000		\$ 425,000			\$ 170,000	\$ 680,000	\$ 1,275,000		\$ 1,309,000
SEWER SDC										
SW CONST	\$ 6,000		\$ 75,000			\$ 30,000	\$ 120,000	\$ 225,000		\$ 231,000
SW SDC										
TOTAL	\$ 40,000		\$ 500,000			\$ 200,000	\$ 800,000	\$ 1,500,000		\$ 1,540,000

PROJECT DETAIL

Project Name: Lab Equipment **Project Number:** Various
Project Subprogram: Capital Delivery/Lab **Fund:** 639/649
Project Completion: Ongoing **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
SEWER CONST			\$ 42,500		\$ 42,500		\$ 42,500	\$ 127,500		
SEWER SDC										
SW CONST			\$ 7,500		\$ 7,500		\$ 7,500	\$ 22,500		
SW SDC										
TOTAL			\$ 50,000		\$ 50,000		\$ 50,000	\$ 150,000		

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Kellogg Creek WRRF Digester Improvements and Dewatering **Project Number:** TBD
Project Subprogram: Capital Delivery/Kellogg Creek WRRF **Fund:** 639
Project Completion: 2032 **Project Status:** Not Active

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 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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST						\$ 2,600,000	\$ 2,600,000	\$ 5,200,000	\$ 29,000,000	\$ 34,200,000
SDC										
TOTAL						\$ 2,600,000	\$ 2,600,000	\$ 5,200,000	\$ 29,000,000	\$ 34,200,000

PROJECT DETAIL

Project Name: Kellogg Creek WRRF Headworks/Grit Loading Improvements

Project Number: TBD

Project Subprogram: Capital Delivery/Kellogg Creek WRRF

Fund: 639

Project Completion: 2028

Project Status: Not Active

Project Description:

The headworks and grit loading systems at Kellogg are original to the 1980s 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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST					\$ 340,000	\$ 1,500,000		\$ 1,840,000		\$ 1,840,000
SDC										
TOTAL					\$ 340,000	\$ 1,500,000		\$ 1,840,000		\$ 1,840,000

PROJECT DETAIL

Project Name: Kellogg Creek WRRF Administration Building Remodel **Project Number:** 700221311 / P632311
Project Subprogram: Capital Delivery/Kellogg Creek WRRF **Fund:** 639
Project Completion: 2026 **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 34,000	\$ 250,000	\$ 1,900,000	\$ 1,900,000				\$ 3,800,000		\$ 4,084,000
SDC										
TOTAL	\$ 34,000	\$ 250,000	\$ 1,900,000	\$ 1,900,000				\$ 3,800,000		\$ 4,084,000

PROJECT DETAIL

Project Name: Kellogg Creek WRRF UV Replacement

Project Number: TBD

Project Subprogram: Capital Delivery/Kellogg Creek WRRF

Fund: 639

Project Completion: 2027

Project Status: Not Active

Project Description:

Treated wastewater at the Kellogg Creek WRRF is disinfected with ultraviolet (UV) light. A chlorination/dechlorination system provides the plant with a back up disinfection system. The Willamette Facilities Plan identified the disinfection system replacement at Kellogg Creek to address reliability of the disinfection system. The UV equipment is at the end of its' useful life. This project will provide an evaluation and selection of the most cost effective disinfection system, then provide design and construction of the recommended system.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST			\$ 560,000	\$ 1,300,000	\$ 1,300,000			\$ 3,160,000		\$ 3,160,000
SDC										
TOTAL			\$ 560,000	\$ 1,300,000	\$ 1,300,000			\$ 3,160,000		\$ 3,160,000

PROJECT DETAIL

Project Name: Kellogg Creek WRRF Primary Clarifier Rehabilitation **Project Number:** TBD
Project Subprogram: Capital Delivery/Kellogg Creek WRRF **Fund:** 639
Project Completion: 2029 **Project Status:** Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST					\$ 500,000	\$ 800,000	\$ 500,000	\$ 1,800,000		\$ 1,800,000
SDC										
TOTAL					\$ 500,000	\$ 800,000	\$ 500,000	\$ 1,800,000		\$ 1,800,000

PROJECT DETAIL

Project Name: Hoodland WRRF Facility Plan

Project Number: TBD

Project Subprogram: Capital Delivery/Hoodland WRRF

Fund: 632

Project Completion: 2026

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST										
SDC				\$ 250,000				\$ 250,000		\$ 250,000
TOTAL				\$ 250,000				\$ 250,000		\$ 250,000

PROJECT DETAIL

Project Name: Boring Upgrades

Project Number: 700221313 / P632313

Project Subprogram: Capital Delivery/Boring WRRF

Fund: 639

Project Completion: 2031

Project Status: Active

Project Description:

The facility is not able to meet its NPDES permit for a significant portion of the year. It cannot meet its ammonia limit for four months in the cold weather months requiring hauling of influent flow to avoid discharge. It cannot meet temperature limits in the summer months during which time on-site irrigation is performed. Currently, compliance is achieved in the winter months by hauling influent to a WES manhole for conveyance to the Willamette Facilities (Kellogg Creek and Tri-City WRRFs). In the summer months, compliance is achieved by irrigating the Boring WRRF property with a portion of the effluent. A Facilities Plan was prepared for the facility, and recommends the facility be converted to a pump station to convey flow to another facility for treatment. A preliminary design was prepared. The cost estimate for the recommended plan increased to the point that the project was postponed until additional funding sources can be secured or to a later date that will be more feasible. Until then, WES will continue with the current program of hauling in the winter months and irrigating in summer months to achieve compliance.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST			\$ 2,000,000					\$ 2,000,000	\$ 8,000,000	\$ 10,000,000
SDC										
TOTAL			\$ 2,000,000					\$ 2,000,000	\$ 8,000,000	\$ 10,000,000

PROJECT DETAIL

Project Name: Fischer's Forest Park Rehabilitation **Project Number:** 700220304 / P632278
Project Subprogram: Capital Delivery/Fischer Forest Park WRRF **Fund:** 639
Project Completion: 2024 **Project Status:** Active

Project Description:

Fischer's Forest Park is a septic system serving 26 residential customers near Redland. The system was built in 1970 and the system requires renovation. This project will address condition issues identified in 2019 including: rehabilitating the collection system, conveyance lines, manholes and pump station entry points, and replacing gravity conveyance lines and septic tanks. The project will also address deficiencies in the existing drain fields and update the effluent distribution system. When completed, the system will be more resilient, more efficient, and should be capable of providing effective sewer treatment for the foreseeable future.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 1,344,000		\$ 200,000					\$ 200,000		\$ 1,544,000
SDC										
TOTAL	\$ 1,344,000		\$ 200,000					\$ 200,000		\$ 1,544,000

PROJECT DETAIL

Project Name: Pipe and Manhole Rehabilitation and Replacement **Project Number:** Various
Project Subprogram: Capital Delivery/Collection System **Fund:** 632/639
Project Completion: Ongoing **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 1,250,000	\$ 500,000		\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,000,000	\$ 500,000	
SDC		\$ 1,250,000	\$ 500,000		\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,000,000	\$ 500,000	
TOTAL		\$ 2,500,000	\$ 1,000,000		\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 4,000,000	\$ 1,000,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: I/I Reduction Program **Project Number:** 700223318
Project Subprogram: Capital Delivery/Collection System **Fund:** 632
Project Completion: Ongoing **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST										
SDC		\$ 4,693,260	\$ 5,600,000	\$ 2,700,000	\$ 3,975,000	\$ 3,760,000	\$ 2,310,000	\$ 18,345,000	\$ 7,000,000	
TOTAL		\$ 4,693,260	\$ 5,600,000	\$ 2,700,000	\$ 3,975,000	\$ 3,760,000	\$ 2,310,000	\$ 18,345,000	\$ 7,000,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Permanent Flow Metering Program

Project Number: Various

Project Subprogram: Capital Delivery/Collection System

Fund: 639

Project Completion: Ongoing

Project Status: Not Active

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 our system continues to grow, these ongoing costs are for replacement of the existing meters as well as for expansion to meter new basins.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST						\$ 50,000	\$ 50,000	\$ 100,000	\$ 100,000	
SDC										
TOTAL						\$ 50,000	\$ 50,000	\$ 100,000	\$ 100,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Multiple Pump Station Upgrades **Project Number:** 700219315 / P632265
Project Subprogram: Capital Delivery/Collection System **Fund:** 639
Project Completion: 2025 **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 3,633,000	\$ 3,700,000	\$ 2,350,000					\$ 2,350,000		\$ 9,683,000
SDC										
TOTAL	\$ 3,633,000	\$ 3,700,000	\$ 2,350,000					\$ 2,350,000		\$ 9,683,000

PROJECT DETAIL

Project Name: Willamette Pump Station and Force Main Capacity and Condition Improvements

Project Number: 700221303 / P632303
700221336 / P632336

Project Subprogram: Capital Delivery/Collection System

Fund: 632/639

Project Completion: 2027

Project Status: Active

Project Description:

The Willamette Pump Station collects flow from the Willamette area of West Linn and conveys it to the Willamette Interceptor. The Sanitary Sewer System Master Plan (2019) 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. The Willamette Facilities Plan (2022) included an evaluation that resulted in a confirmation that the current configuration and use of the pump station and force main will continue as into the future. 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 expansion or 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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 470,500	\$ 1,892,834	\$ 4,600,000	\$ 4,125,000	\$ 4,150,000			\$ 12,875,000		\$ 15,238,334
SDC	\$ 470,500	\$ 1,892,833	\$ 4,600,000	\$ 4,125,000	\$ 4,150,000			\$ 12,875,000		\$ 15,238,333
TOTAL	\$ 941,000	\$ 3,785,667	\$ 9,200,000	\$ 8,250,000	\$ 8,300,000			\$ 25,750,000		\$ 30,476,667

PROJECT DETAIL

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

Project Number: 700221325 / 632326

Project Subprogram: Capital Delivery/Collection System

Fund: 632/639

Project Completion: 2027

Project Status: Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 517,000	\$ 450,000	\$ 4,000,000	\$ 5,000,000	\$ 1,000,000			\$ 10,000,000	\$ 1,550,000	\$ 12,517,000
SDC	\$ 517,000	\$ 450,000	\$ 4,000,000	\$ 5,000,000	\$ 1,000,000			\$ 10,000,000	\$ 1,550,000	\$ 12,517,000
TOTAL	\$ 1,034,000	\$ 900,000	\$ 8,000,000	\$ 10,000,000	\$ 2,000,000			\$ 20,000,000	\$ 3,100,000	\$ 25,034,000

PROJECT DETAIL

Project Name: Rock Creek Interceptor Extension **Project Number:** 700220316 / P632295
Project Subprogram: Capital Delivery/Collection System **Fund:** 632
Project Completion: 2028 **Project Status:** Active

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.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST										
SDC	\$ 17,000		\$ 1,000,000	\$ 1,000,000	\$ 5,000,000	\$ 5,000,000		\$ 12,000,000		\$ 12,017,000
TOTAL	\$ 17,000		\$ 1,000,000	\$ 1,000,000	\$ 5,000,000	\$ 5,000,000		\$ 12,000,000		\$ 12,017,000

PROJECT DETAIL

Project Name: Clackamas Area Interceptor Improvements

Project Number: 700219323 / P632274

Project Subprogram: Capital Delivery/Collection System

Fund: 632/639

Project Completion: 2035

Project Status: Active

Project Description:

The Clackamas Interceptor has been shown in past studies and in the Sanitary Sewer System Master Plan (2019) 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 three construction packages: Upper Clackamas Interceptor including Clackamas Industrial Area (CIA) (Complete 2030), Middle Clackamas Interceptor including the Mr Scott Interceptor and Camp Withycombe (Complete 2027) and Lower Clackamas Interceptor (Complete 2035).

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 384,500	\$ 1,125,000	\$ 1,700,000	\$ 3,000,000	\$ 3,750,000	\$ 1,000,000	\$ 2,000,000	\$ 11,450,000	\$ 10,100,000	\$ 23,059,500
SDC	\$ 384,500	\$ 1,125,000	\$ 1,700,000	\$ 3,000,000	\$ 3,750,000	\$ 1,000,000	\$ 2,000,000	\$ 11,450,000	\$ 10,100,000	\$ 23,059,500
TOTAL	\$ 769,000	\$ 2,250,000	\$ 3,400,000	\$ 6,000,000	\$ 7,500,000	\$ 2,000,000	\$ 4,000,000	\$ 22,900,000	\$ 20,200,000	\$ 46,119,000

PROJECT DETAIL

Project Name: Mt. Talbert Realignment **Project Number:** P700223306
Project Subprogram: Capital Delivery/Collection System **Fund:** 639
Project Completion: 2025 **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 66,000		\$ 1,000,000					\$ 1,000,000		\$ 1,066,000
SDC										
TOTAL	\$ 66,000		\$ 1,000,000					\$ 1,000,000		\$ 1,066,000

PROJECT DETAIL

Project Name: Upsize Section of Clackamas Force Main

Project Number: TBD

Project Subprogram: Capital Delivery/Collection System

Fund: 632/639

Project Completion: 2027

Project Status: Active

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 to 12-inch for continuity of diameter.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST					\$ 500,000			\$ 500,000		\$ 500,000
SDC					\$ 500,000			\$ 500,000		\$ 500,000
TOTAL					\$ 1,000,000			\$ 1,000,000		\$ 1,000,000

PROJECT DETAIL

Project Name: Bolton Force Main Evaluation and Replacement

Project Number: TBD

Project Subprogram: Capital Delivery/Collection System

Fund: 639

Project Completion: 2029

Project Status: Active

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 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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST			\$ 100,000		\$ 1,000,000	\$ 2,500,000	\$ 2,500,000	\$ 6,100,000		\$ 6,100,000
SDC										
TOTAL			\$ 100,000		\$ 1,000,000	\$ 2,500,000	\$ 2,500,000	\$ 6,100,000		\$ 6,100,000

PROJECT DETAIL

Project Name: Heavy Equipment **Project Number:** Various
Project Subprogram: Capital Delivery/Fleet **Fund:** 639
Project Completion: Ongoing **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 750,000	\$ 250,000	\$ 490,000	\$ 210,000		\$ 500,000	\$ 1,450,000	\$ 1,000,000	
SDC										
TOTAL		\$ 750,000	\$ 250,000	\$ 490,000	\$ 210,000		\$ 500,000	\$ 1,450,000	\$ 1,000,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Vehicle Replacement **Project Number:** Various
Project Subprogram: Capital Delivery/Fleet **Fund:** 639
Project Completion: Ongoing **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST			\$ 259,000	\$ 210,000	\$ 260,000	\$ 605,000	\$ 165,000	\$ 1,499,000	\$ 3,499,000	
SDC										
TOTAL			\$ 259,000	\$ 210,000	\$ 260,000	\$ 605,000	\$ 165,000	\$ 1,499,000	\$ 3,499,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Asset Management - Renewal and Replacement

Project Number: Various

Project Subprogram: Capital Delivery/Asset Maintenance

Fund: 639

Project Completion: Ongoing

Project Status: Active

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.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 4,000,000	\$ 5,600,000	
SDC										
TOTAL		\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 4,000,000	\$ 5,600,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Pump Station Improvements **Project Number:** Various
Project Subprogram: Capital Delivery/Collection System **Fund:** 639
Project Completion: Ongoing **Project Status:** Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000	\$ 350,000	
SDC										
TOTAL		\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000	\$ 350,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

Appendix B

Surface Water Project Detail Sheets

PROJECT DETAIL

Project Name: 3-Creeks Water Quality Project

Project Number: 700321403 / P642302

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: 2026

Project Status: Active

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 DEQ's State Revolving Loan Fund program. Permits have been submitted and construction is anticipated to begin Summer/Fall 2024.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST	\$ 977,000	\$ 800,000	\$ 3,000,000	\$ 141,000				\$ 3,141,000		\$ 4,918,000
SDC										
TOTAL	\$ 977,000	\$ 800,000	\$ 3,000,000	\$ 141,000				\$ 3,141,000		\$ 4,918,000

PROJECT DETAIL

Project Name:	Aldercrest Culvert Replacement & Kellogg Creek Restoration	Project Number:	700323401
Project Subprogram:	Watershed Protection	Fund:	649
Project Completion:	2026	Project Status:	Active

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 naturalizing a concrete 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. At the northern end of the creek segment, the project will remove the concrete channel, establish a more natural creek bed and banks, and restore native vegetation within the riparian area. Four 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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST		\$ 250,000	\$ 390,000	\$ 1,140,000	\$ 420,000			\$ 1,950,000		\$ 2,200,000
SDC										
TOTAL		\$ 250,000	\$ 390,000	\$ 1,140,000	\$ 420,000			\$ 1,950,000		\$ 2,200,000

PROJECT DETAIL

Project Name: SE Clackamas Rd Drainage Infrastructure

Project Number: 700323402

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: 2026

Project Status: Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST		\$ 90,000	\$ 81,000	\$ 422,000	\$ 177,000			\$ 680,000		\$ 770,000
SDC										
TOTAL		\$ 90,000	\$ 81,000	\$ 422,000	\$ 177,000			\$ 680,000		\$ 770,000

PROJECT DETAIL

Project Name: NCRA Stormwater Plan

Project Number: TBD

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: 2033

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST						\$ 150,000		\$ 150,000	\$ 4,995,000	\$ 5,145,000
SDC										
TOTAL						\$ 150,000		\$ 150,000	\$ 4,995,000	\$ 5,145,000

PROJECT DETAIL

Project Name: Rose Creek New Detention Pond and Instream Restoration

Project Number: TBD

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: 2028

Project Status: Not Active

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 help to reduce erosion in the stream. The proposed detention pond receives runoff from a drainage basin of approximately 30 acres, which is assumed to be 25% impervious. 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 highflow events. Wetland areas will be constructed adjacent to the main channel by excavation and planting with native wetland plants.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST				\$ 349,000	\$ 1,522,000	\$ 1,522,000		\$ 3,393,000		\$ 3,393,000
SDC										
TOTAL				\$ 349,000	\$ 1,522,000	\$ 1,522,000		\$ 3,393,000		\$ 3,393,000

PROJECT DETAIL

Project Name: SE Wildlife Estates Dr Ditch Inlet & Upstream Detention **Project Number:** TBD
Project Subprogram: Watershed Protection **Fund:** 649
Project Completion: 2027 **Project Status:** Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST		\$ 239,400	\$ 306,000	\$ 1,035,000	\$ 396,000			\$ 1,737,000		\$ 1,976,400
SDC										
TOTAL		\$ 239,400	\$ 306,000	\$ 1,035,000	\$ 396,000			\$ 1,737,000		\$ 1,976,400

PROJECT DETAIL

Project Name: Sunnyside Place Culvert Replacement & Stream Restoration

Project Number: TBD

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: 2029

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST							\$ 670,000	\$ 670,000		\$ 670,000
SDC										
TOTAL							\$ 670,000	\$ 670,000		\$ 670,000

PROJECT DETAIL

Project Name: Valley View (Storm Costs Only)

Project Number: TBD

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: 2033

Project Status: Not Active

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.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST							\$ 250,000	\$ 250,000	\$ 3,028,000	\$ 3,278,000
SDC										
TOTAL							\$ 250,000	\$ 250,000	\$ 3,028,000	\$ 3,278,000

PROJECT DETAIL

Project Name:	Small Drainage Projects Program	Project Number:	Various
Project Subprogram:	Watershed Protection	Fund:	649
Project Completion:	Ongoing	Project Status:	Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 596,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000	\$ 700,000	
SDC										
TOTAL		\$ 596,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000	\$ 700,000	

*Estimated spent to date and total project are not applicable for programmatic capital costs.

PROJECT DETAIL

Project Name:	Stormwater Pond Repair and Rehabilitation Program	Project Number:	Various
Project Subprogram:	Watershed Protection	Fund:	649
Project Completion:	Ongoing	Project Status:	Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 108,000	\$ 200,000	\$ 411,000	\$ 411,000	\$ 411,000	\$ 411,000	\$ 1,844,000	\$ 2,877,000	
SDC										
TOTAL		\$ 108,000	\$ 200,000	\$ 411,000	\$ 411,000	\$ 411,000	\$ 411,000	\$ 1,844,000	\$ 2,877,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Small Storm System Emergency Repairs **Project Number:** Various
Project Subprogram: Watershed Protection **Fund:** 649
Project Completion: Ongoing **Project Status:** Active

Project Description:

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

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000	\$ 700,000	
SDC										
TOTAL		\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000	\$ 700,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: Water Quality Retrofit Program

Project Number: Various

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: Ongoing

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST				\$ 100,000	\$ 198,300	\$ 198,300	\$ 198,300	\$ 694,900	\$ 1,057,000	
SDC										
TOTAL				\$ 100,000	\$ 198,300	\$ 198,300	\$ 198,300	\$ 694,900	\$ 1,057,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name: UIC Decommissioning/Retrofit Program

Project Number: Various

Project Subprogram: Watershed Protection

Fund: 649

Project Completion: Ongoing

Project Status: Not Active

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 Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST				\$ 20,000	\$ 53,000	\$ 53,000	\$ 53,000	\$ 179,000	\$ 371,000	
SDC										
TOTAL				\$ 20,000	\$ 53,000	\$ 53,000	\$ 53,000	\$ 179,000	\$ 371,000	

**Estimated spent to date and total project are not applicable for programmatic capital costs.*

PROJECT DETAIL

Project Name:	Restoration & Property Acquisition (Baseline Funding)	Project Number:	Various
Project Subprogram:	Watershed Protection	Fund:	649
Project Completion:	Ongoing	Project Status:	Active

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.
- Streamside property acquisition to protect existing valuable habitat from alteration.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE*	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT*
CONST		\$ 150,000		\$ 650,000	\$ 650,000	\$ 823,200	\$ 823,200	\$ 2,946,400	\$ 5,289,200	
SDC										
TOTAL		\$ 150,000		\$ 650,000	\$ 650,000	\$ 823,200	\$ 823,200	\$ 2,946,400	\$ 5,289,200	

*Estimated spent to date and total project are not applicable for programmatic capital costs.

PROJECT DETAIL

Project Name: Thiessen Culvert Replacement & Kellogg Creek Restoration

Project Number: N/A

Project Subprogram: Watershed Protection

Fund: N/A

Project Completion: 2026

Project Status: Active

Project Description:

The purpose of this project is to replace an undersized culvert where SE Thiessen Road crosses Kellogg Creek. The creek currently passes through a 6-foot diameter round culvert which creates a backwater and floods the roadway and private property upstream.

This project will replace the existing undersized round culvert with an arched culvert 14 feet wide and approximately 5 feet tall. The culvert width will accommodate a natural streambed form to be constructed within the culvert. The wider archway will allow the natural movement of water and sediment in this section of the creek to alleviate backwater and allow for fish passage. The area at either end of the culvert will be revegetated to restore the habitat along the stream in the project area. The length of the culvert was designed to accommodate the full width of SE Thiessen Road under the minor arterial designation, although the road is currently narrower.

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, and will be constructed by the County Department of Transportation and Development.

Project Costs:

FUNDING SOURCE	ESTIMATED SPENT TO DATE	FY 23/24 BUDGET	FY 24/25 PROJECTED	FY 25/26 PROJECTED	FY 26/27 PROJECTED	FY 27/28 PROJECTED	FY 28/29 PROJECTED	TOTAL FY 25-29 PROJECTED	TOTAL FY 30-36 PROJECTED	TOTAL PROJECT
CONST			\$ 50,000	\$ 63,000	\$ 344,000	\$ 344,000		\$ 801,000		\$ 801,000
SDC										
TOTAL			\$ 50,000	\$ 63,000	\$ 344,000	\$ 344,000		\$ 801,000		\$ 801,000



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