



CLACKAMAS
WATER
ENVIRONMENT
SERVICES

2023 ANNUAL REPORT



Message from the Director



2023 was a pivotal year for WES. We know building a more resilient water future involves good planning, and we're more focused than ever on what's critical to the nature of our work, our service area communities, our customers, and the public we serve. I remain steadfast in my optimism for the future of clean water.

I am hopeful, because at WES we have had to learn to navigate an ever-changing landscape. However, our effective planning has provided us the guidance to make wise financial decisions to ensure we have the resources to fully meet our mission and obligation to the people we serve.

To safeguard a clean water future for all, we must be strategic and vision-focused in our work. In order to do this, we created WES' Strategic Plan.

In this report, you'll learn how every milestone we achieve, every partnership we forge, and every innovation we deliver aligns with WES' Strategic Plan. This positions us for continued success in providing the services you depend on every day.

Your opinion of our service matters to us, and we would love to hear from you. You can email us at wescustomerservice@clackamas.us

It is our pleasure and privilege to serve you.

A handwritten signature in blue ink that reads "Greg Geist". The signature is written in a cursive, flowing style.

Greg Geist
Director, Clackamas Water Environment Services

Who we are

Mission (Why We're Here)

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

Vision (Where We Are Going)

Be a collaborative partner in building a resilient clean water future where all people benefit and rivers thrive.

Focus Areas (What We Stand For)

- Protecting Public Health
- Investment in Our People
- Stewardship of Healthy Watersheds
- Responsive Customer Service
- Fiscal Responsibility
- Water Resource Recovery

AT A GLANCE

5

Water Resource
Recovery Facilities

7 Billion

Gallons per
year cleaned

194k

Estimated
population served

23

Pump stations

358

Miles of sanitary
sewer pipes

19,001

Surface water catch
basins/manholes

\$288,905,817

Budget

Strategically Planning Our Way Forward

Our new strategic plan, developed using best practices within the industry, provides an overview of the organization's key initiatives and focus areas. The plan identifies the importance of each initiative in addressing critical operational challenges, as well as goals and objectives that will be implemented at all levels of our organization.

Successful application of this plan will result in enhanced customer satisfaction, more efficient and resilient operations, enhanced systems and infrastructure, and a highly skilled and diverse workforce that is responsive to a growing population and changing climate, all while maintaining affordable rates.

View our strategic plan:
<https://bit.ly/WESStrategicPlan>

In the following pages, you will read how the strategies guide our work.

Our Core Strategies

STRATEGY 1

Workforce Planning and Development

STRATEGY 2

Utility Operations

STRATEGY 3

Asset Management

STRATEGY 4

Capital Planning and Delivery

STRATEGY 5

Financial Viability

STRATEGY 6

Customer Satisfaction

STRATEGY 7

Stakeholder and Community Engagement



Building for the Future

The WES Capital Improvement Plan



Jeff Stallard, WES Capital Program Manager
Capital Planning and Delivery

Infrastructure from roads, water and wastewater systems enables our community not only to function, but thrive.

The WES engineering team strategically plans and upgrades WES' infrastructure to ensure the sustainable delivery of reliable, high-quality, and climate-resilient clean water services that support the growth and vitality of our communities, natural environment, and economy.

This past year, the WES Board of Directors (Clackamas County Board of Commissioners) adopted a new 5-year Capital Improvement Plan, using population projections, zoning information, existing flow rates, and rainfall patterns to plan future projects. Our master plans that inform the Capital Improvement Plan include costs associated with maintaining, repairing or replacing current assets, enabling us to do this work while keeping your rates affordable.

Learn more about our Capital Improvement Plan:
www.clackamas.us/wes/wes-projects



Civil Engineering Supervisor Jessica Rinner inspects the Bolton Pump Station in West Linn, which was upgraded in 2023. 

Construction crews replace an intertie valve. The work was part of the WES Pump Station Repairs and Upgrades Project, which is designed to increase reliability. 



Upgrading and Upsizing to Fit the Community Needs

The Clackamas Area Interceptor Improvement Project



Zach Koellermeier, WES Construction Manager

Capital Planning and Delivery

WES strategically plans and executes capital projects to meet our service area's growth, reliability, and regulatory needs at the lowest life cycle cost.

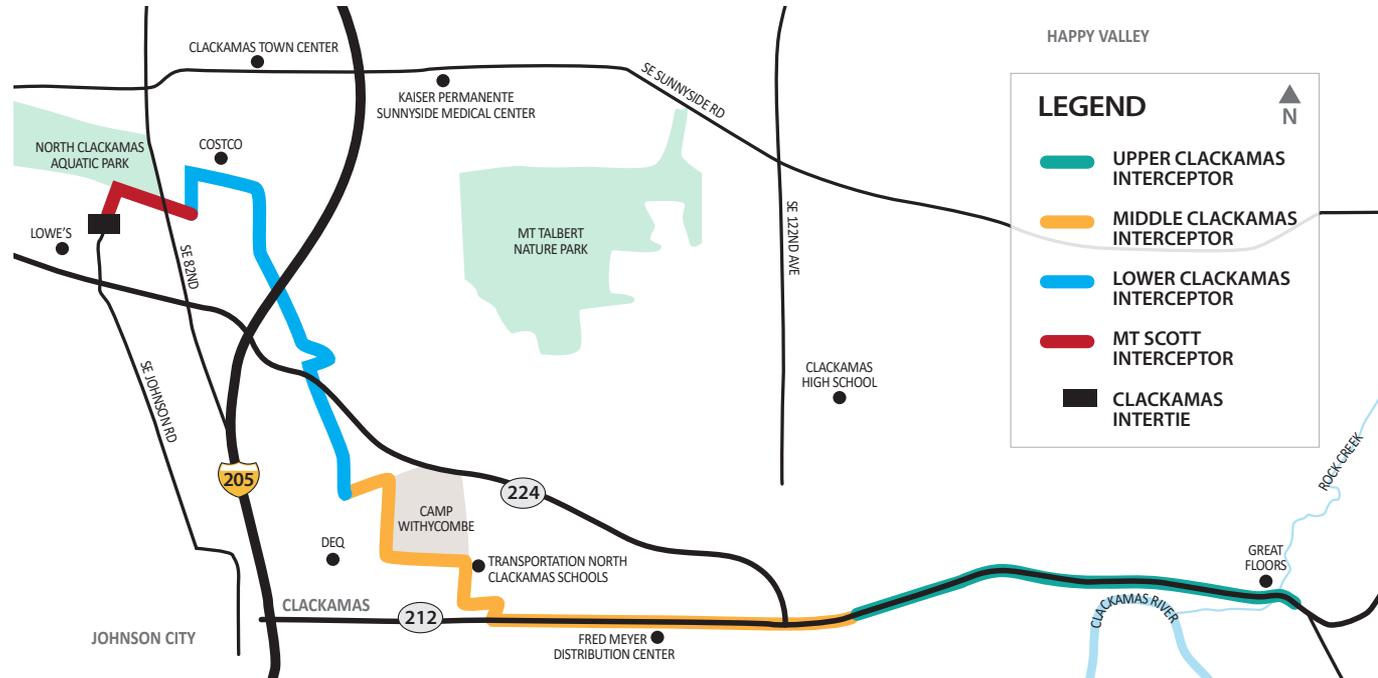
One example is the Clackamas Area Interceptor, the primary sewer line that has served Happy Valley and the unincorporated area around it well for years by transporting wastewater to WES' water resource recovery facilities.

The interceptor now needs upgrades and upsizing to keep pace with growth in the area.

The design process, community outreach and other preliminary work began in 2023. Construction is expected to start in 2026 on the middle section of the interceptor to address current capacity issues, with project completion expected in 2027. It will include the replacement of existing pipes with larger, more resilient pipes that will increase capacity to accommodate growth.

Learn more about the Clackamas Area Interceptor Improvement Project: www.clackamas.us/wes/caiip

The Clackamas Area Interceptor Improvement Project includes five miles of pipes divided into four segments for construction purposes.



Building a Clean Water Future

The Tri-City Water Resource Recovery Facility Outfall Project



Mike Rice, WES Senior Civil Engineer
Capital Planning and Delivery and Stakeholder and Community Engagement

As WES strives to build a clean water future, forecasting what we need 10, 20, and 40 years out helps make that vision a reality.

Our Tri-City Water Resource Recovery Facility Outfall Project, which will install a new 90-inch outfall pipe from our Tri-City facility to the Willamette River, reached a 60% design milestone in 2023. The current outfall from the Tri-City facility was constructed in 1984 and is nearing capacity during peak wet weather events. An outfall pipe conveys treated water from our water resource recovery facility to a discharge point in the river, and is designed to maximize mixing and dilution of effluent. The mixing must meet state water quality standards for boating, swimming, fishing, and aquatic resources.

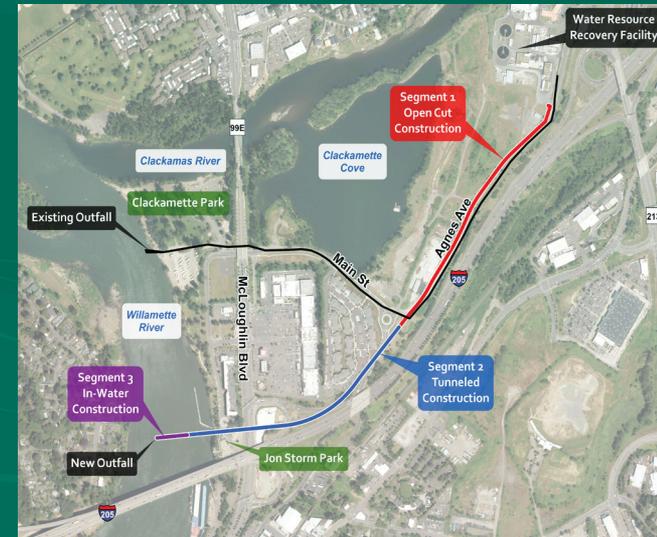
We are committed to building collaborative partnerships that result in a resilient clean water future where all people benefit and rivers thrive through proactive engagement, effective communication, public education, and community leadership.

The National Association of Counties (NACo) recognized WES with a 2023 Achievement Award for our innovative outreach efforts to educate the public about the project.

Learn more about the Tri-City Water Resource Recovery Facility Outfall Project:
www.tricityoutfall.info



Capital Program Manager Jeff Stallard, Commissioner Paul Savas, Commissioner Martha Schrader, Chair Tootie Smith, Commissioner Mark Shull, and External Affairs Specialist Shelly Parini receiving the NACo 2023 Achievement Award.



Map of the outfall alignment from the Tri-City Water Resource Recovery Facility to the Willamette River

Serving you 24/7

Facility Operations



Matt House, WES Operations Manager
Utility Operations

At WES, we strive to manage our wastewater and stormwater systems to meet or surpass environmental, safety and public health standards, recover resources, and protect our watersheds.

This year, WES was honored to receive four Peak Performance Awards from the National Association of Clean Water Agencies (NACWA) for excellence in treatment plant operations and permit compliance.

Strategic planning is critical to effectively maintaining our facilities. Our Willamette Facilities Plan charts the path for our treatment facilities through 2040. The plan identified six primary clarifiers needing upgrades to ensure effective solids removal from wastewater. Two clarifiers were successfully rehabilitated this year, with the four remaining scheduled to be upgraded in 2024 and 2025.

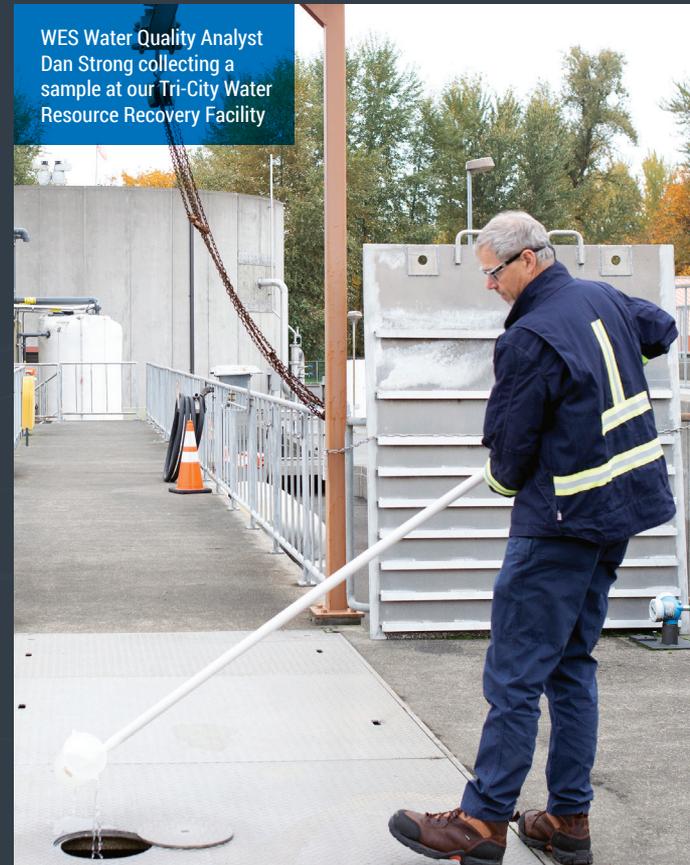
Learn more about our water resource recovery facilities:
www.clackamas.us/wes/ssewer.html



 Resurfacing a primary clarifier at our Tri-City Water Resource Recovery Facility



The new secondary clarifier drive at our Kellogg Creek Water Resource Recovery Facility lifted into place



WES Water Quality Analyst Dan Strong collecting a sample at our Tri-City Water Resource Recovery Facility

Your Frontline of Defense

Field Operations



Kyle Bean, WES Field Operations Supervisor
Asset Management and Utility Operations

From time to time, you may see WES crew members in your neighborhood making sure wastewater and stormwater systems are functioning correctly.

Our crews respond to 15 - 20 customer service requests, inspect and clean 250 stormwater assets, and provide preventative maintenance on over three miles of sewer mainlines each month.

Sometimes, our crews work overnight on more extensive projects to minimize the impact on daytime traffic, such as cleaning sewer lines along SE 82nd Drive over several nights in 2023.

When this is necessary, WES alerts community members in advance, so that our customers understand what kind of work is being done and how it will strengthen the services WES provides.

WES field operations crews are your front line of defense in protecting your property and our water.



Sanitary and Stormwater Tech Giovanni Bazan doing maintenance work on a bioretention planter in Happy Valley



Overnight work cleaning catch basins along Sunnyside Road

Protecting Our Collection System

The Inflow and Infiltration Reduction Program (I/I)



Jessica Rinner, WES Civil Engineering Supervisor
Asset Management

Inflow and infiltration (I/I) is groundwater or rainwater that enters the wastewater system through direct connections such as roof drains, area drains or pipe defects such as leaking joints. Reducing I/I by 65% in targeted areas by 2040 will reduce the amount of water we have to treat, and save approximately \$120 million in required upgrades and expansion.

In 2023, WES made significant progress in working with our city partners to reduce I/I in city-owned sewer pipes. WES provided 33% funding for approved I/I reduction projects in partner cities, such as two recent projects in Oregon City to repair approximately 13,000 feet of sewer main line and 200 service lateral sewer lines.

Learn more about the ongoing Inflow and Infiltration Reduction Program: www.clackamas.us/wes/iir



Sanitary and Stormwater Technician Kevin Rotrock demonstrates to Gladstone officials how to use the CCTV truck



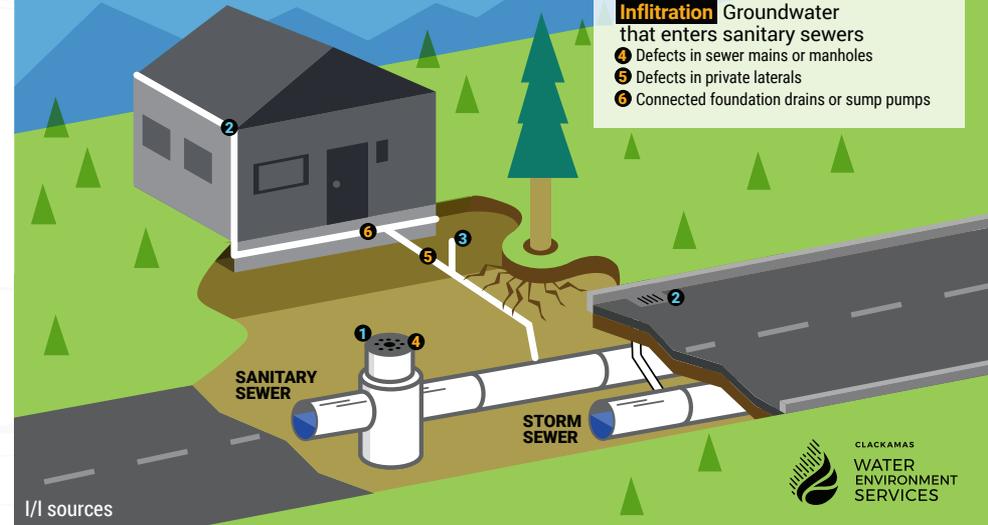
Screen capture showing water pouring into a sewer pipe through a crack.



Inflow and Infiltration 101

- Inflow** Surface water that flows into sanitary sewers
- 1 Rain water or stream flow into manholes
 - 2 Catch basins, or area and roof drains connected to sanitary sewer lines
 - 3 Missing cleanout caps

- Infiltration** Groundwater that enters sanitary sewers
- 4 Defects in sewer mains or manholes
 - 5 Defects in private laterals
 - 6 Connected foundation drains or sump pumps



Financial Stewardship

Prudently managing your rate payer dollars



Erin Blue, WES Finance Manager
Financial Viability

We take our responsibility as stewards of ratepayer dollars very seriously. Our long-range planning, reserves built up over years, and outstanding credit rating enables us to meet the promise to our customers to build for the future and maintain our existing infrastructure with minor, predictable rate increases despite rising construction and material costs.

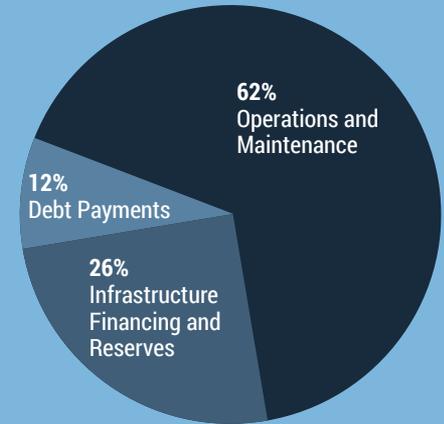
This year, we continued to refine WES' long-range financial plan to effectively provide the service you depend on while maintaining a fair, reasonable and equitable rate structure. The plan calls for a \$333 million investment to continue accommodating the rapid growth in our service area and deliver the necessary improvements to existing infrastructure.

In 2023, WES received the Government Finance Officers Association's Certificate of Achievement for Excellence in Financial Reporting and Distinguished Budget Presentation Awards. These accolades are a testament to our fiscal diligence.

Review our budget and financial reports:
www.clackamas.us/wes/financial-reports



Your Rate Dollars at Work



Operations and maintenance

- All wastewater treatment services
- Plant maintenance
- Regulatory compliance, including laboratory
- Collection system maintenance
- All surface water services
- Stormwater infrastructure maintenance
- Riparian area restoration and enhancement
- Public education related to water quality
- Watershed planning and regulatory compliance

Debt Payments

- Principal and interest on long-term debt used to finance capital projects

Infrastructure Financing and Reserves

- Equipment replacement
- Reserves for future project needs
- Building treatment capacity for future growth
- Construction projects

Managing Surface and Stormwater through Teamwork and Partnerships

The 3-Creeks Natural Area Floodplain Enhancement Project



Gail Shaloum, WES Natural Resources Scientist
Stakeholder and Community Engagement and Capital Planning and Delivery

2023 was a watershed year for our 3-Creeks Natural Area Floodplain Enhancement Project, which will improve water quality, allow streams to overflow onto the floodplain in this large natural area, and improve stream habitat along a critical stretch of Mt. Scott Creek.

WES was awarded a \$620,000 Nature in Neighborhoods Capital Grant from Metro to expand our stream and floodplain restoration work on the property. This reflects the strong regional and local interest and support for improving watershed health in Mt. Scott Creek.

Learn more about the 3-Creeks Natural Area Floodplain Enhancement Project: www.clackamas.us/wes/3-creeks

Appreciating our Project Partners

Clackamas Partnership, Confederated Tribes of the Grand Ronde, Bob's Red Mill, North Clackamas Parks & Recreation District, Trackers Earth and Trackers Earth Forest School, Clackamas Community College, Linwood Neighborhood District Association, Lower Columbia Estuary Partnership, Ecology in Classrooms & Outdoors, Clackamas Web Academy, North Clackamas Watershed Council and Unite Oregon.

 Shaloum leads a tour of the 3-Creeks Natural Area



 Aerial view of the 3-Creeks Natural Area



Partnering with our Community



Shelly Parini, WES External Affairs
Stakeholder and Community Engagement

WES is committed to building a clean water future for all through deep and lasting partnerships.

In 2023, WES awarded \$300,000 in grants through our RiverHealth Stewardship Program to 12 organizations dedicated to protecting and improving the health of our watersheds and educating a future generation of diverse watershed leaders.

The successful partnership between SOLVE and WES continued in 2023 with the annual Summer Waterway Cleanups Series. Volunteers removed nearly 35,000 pounds of trash from waterways and natural areas in Clackamas County. The WES-SOLVE cleanups mobilize and educate volunteers of all ages about the importance of protecting our shared environment and build a legacy of stewardship.

In addition, each year WES proudly supports a wide variety of efforts that educate students and adults on issues related to maintaining our sanitary system and protecting our waterways. Our goal is simple. We want to motivate people to take action in their daily lives to reduce human impacts on water quality. It's true that simple actions, like picking up your pet waste, can have big impacts on the health of our streams and rivers.

Together, we really can ensure a clean water future for all.



 WES Director Greg Geist with a big haul at the WES-SOLVE event at Meldrum Bar Park



 The WES-SOLVE event at High Rocks Park, where 40 volunteers removed more than 600 pounds of garbage

Our Leaders

Commissioners and Advisory Committee

The Clackamas County Commissioners serve as WES' governing Board of Directors.

Commissioners receive recommendations from the WES Advisory Committee on a variety of issues. The WES Advisory Committee includes ratepayers, environmental representatives, business owners, members of the development community and elected officials.

Members bring experience in wastewater management, watershed health and restoration, economic development and surface water. The committee provides input and makes recommendations to WES and the Board of County Commissioners.

Learn more about the WES Advisory Committee

www.clackamas.us/wes/advisorycommittee



The WES Advisory Committee at the Tri-City Water Resource Recovery Facility



Advisory Committee Member Christopher Bowker participating in a WES-SOLVE cleanup event

Service Area



- WES Service Area
- WES Wastewater Facilities
- WES Stormwater Facilities

- 1 Kellogg Creek Water Resource Recovery Facility
- 2 Tri-City Water Resource Recovery Facility
- 3 Boring Wastewater Treatment Facility
- 4 Hoodland Water Resource Recovery Facility
- 5 Fischer's Forest Park Wastewater Treatment Facility
- 6 3-Creeks Natural Area
- 7 Carli Creek Stormwater Wetland
- 8 WES Administration, Red Soils Campus



**“At WES, we all serve
different functions, but
we fit together to solve
the clean water puzzle”**

- WES Director Greg Geist

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