



Clackamas Water Environment Services

Clackamas County Board of Commissioners

Tootie Smith, Chair Paul Savas, Commissioner Martha Schrader, Commissioner Mark Shull, Commissioner Ben West, Commissioner

District Management

Gary Schmidt, District Administrator Greg Geist, WES Director

Prepared By:

WES Management Team













TABLE OF CONTENTS

Introduction	
Planning Process	1
Using the Effective Utility Management Framework	1
Vision, Mission, and Focus Areas	2
Strategies	3
Strategic Framework	4
Performance Measures and Indicators	5
Performance Clackamas Structure	6
Lines of Business: Purpose Statements and Key Measures	
Business Services	6
Capital Planning and Management	6
Environmental Services	7
Operations	7
Programs: Purpose Statements, Indicators, and Measures	
Administrative Services	88
Account Services	9
Financial Management	10
Asset Management	11
Capital Delivery	12
Environmental Monitoring	13
Permit Services	14
Watershed Protection	15
Resource Recovery	16
Field Operations and Maintenance	17
Plant Operations and Maintenance	18
Glossary	19
Acronyms and Initialisms	20

INTRODUCTION

Planning Process

As detailed below, Clackamas Water Environment Services' (WES) Fiscal Year (FY) 2024-2026 Performance Clackamas Plan is the outcome of an extensive department-wide strategic planning initiative.

Beginning in late 2021 and continuing through 2022, WES conducted a series of internal and external listening sessions designed to strengthen customer and stakeholder understanding, create new clean water partnerships, improve services, and increase trust through enhanced connections. The discovery process included surveys, focus groups, interviews, and small group discussions. This highly collaborative process identified key opportunities to enhance WES' vision, mission, and core "focus areas." It also helped us better understand how WES could build a more resilient future for our department, employees and customers to provide the best service possible at an affordable cost.

Using the Effective Utility Management (EUM) Framework

In 2008, a group of leading organizations of water sector professionals (representing organizations including the American Water Works Association, Water Environment Federation, American Public Works Association, and the US Environmental Protection Agency) teamed to develop and launch a framework known as "Effective Utility Management" or "EUM."

Based on classic continual improvement principles, and crafted by working utility managers from across the US, the framework is designed to be used by water sector utility organizations, like WES, to help them become more effectively managed. At the core of the framework are 10 Attributes of Effectively Managed Utilities and 5 Keys to Management Success. In brief, the Attributes help define the everyday best practices at well-run, well-managed utilities and the Keys to Success are the enablers or facilitators of these best practices, which include strategic planning, measurement of progress, and embracing a continual improvement management mindset.

WES used one of the tools of the EUM framework, an internal, organizational "self-assessment" to identify strengths and opportunities that were used to build out the goals and measures in WES' Performance Clackamas Plan. The findings of the assessment and related discussions served to confirm the vision, mission, and focus areas that were crafted earlier in WES' strategic planning process, and identified seven key strategies that provide the foundation for WES' efforts both now and in the years to come.

EFFECTIVE UTILITY ATTRIBUTES

Community Sustainability

Customer Satisfaction

Employee and Leadership Development

Enterprise Resiliency

Financial Viability

Infrastructure Strategy and Performance

Operational Optimization

Product Quality

Stakeholder Understanding and Support

Water Resources Sustainability



RETURN TO TABLE OF CONTENTS

VISION, MISSION, AND FOCUS AREAS

Vision: Where We Are Going

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

Mission: Why We Are 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.

Focus Areas: What We Stand For



Protecting Public Health



Responsive Customer Service



Investment in Our People



Fiscal Responsibility



Stewardship of Healthy Waterways



Water Resource Recovery

Key Guiding and Governing Documents

WES Comprehensive Strategic Plan

WES Capital Improvement Plan

WES Long-Range Financial Plan

STRATEGIES

WES' seven key strategies, as outlined below, summarize the main actions WES will take to address current business challenges.

No.	Strategy	Description
1	Workforce Planning and Development	We build an organization and work culture that attracts, retains, develops, engages, and invests in a high performing workforce to achieve our vision, mission, and support our values.
2	Utility Operations and Environmental Protection	We effectively manage wastewater and stormwater systems to meet or surpass environmental, safety, and public health standards, to recover resources and to protect watersheds.
3	Asset Management	We proactively invest in and maintain WES' infrastructure assets to ensure the cost-effective, sustainable delivery of reliable, high quality, and efficient clean water services.
4	Capital Planning and Delivery	We strategically plan and upgrade 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.
5	Financial Viability	We manage WES' financial resources to meet present and future funding needs, and to maintain fair, reasonable, and equitable rates that demonstrate fiscal responsibility.
6	Customer Satisfaction	We provide reliable, responsive customer service that aligns with our communities' values and the expressed needs of our customers.
7	Stakeholder Support	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.

STRATEGIC FRAMEWORK

The table below illustrates the relationship between the different components of WES' Plan and the development process. Each of WES' seven key strategies serves as the basis for more specific goals and measures.

The 14 strategic results listed in the table are pulled up from the Line of Business/Program level to track at the Department level.



PERFORMANCE MEASURES AND INDICATORS

Performance Measures

WES' Performance Clackamas Plan contains four types of performance measures, as detailed in the table below:

Measure Type	Used to track:
Result	Progress towards a goal achieved by a future date
Customer	The sentiment of how program outcomes or engagements are received by others
Ratio	Program performance in terms of other factors, such as combinations of outcomes or dollars
Output	Program activity represented by numbers that change during a time period

Indicators

Indicators serve as broad pathways to align WES' plan to the Clackamas County Board of Commissioner's (BCC's) five overarching Strategic Priorities. While each performance measure in WES' plan is linked to a specific indicator, each WES program may be linked to several indicators.

The table below contains the indicators to which performance measures in WES' plan are linked.

Indicator	As Evidenced By
Affordable Services	Affordability of County services through rates and fees
Bond Rating	A positive Bond rating
Business Growth	Increased business revenue, GDP and expansion
Clean Water	Increased availability of clean water to residents for all activities
Construction Growth	Increase in construction opportunities, including permitting
Disaster Response	Level of immediate assistance, damage assessment, and restoration or construction of infrastructure
Diversity Equity and Inclusion	Increase in equitable delivery of services
Infrastructure Condition	Improvement in the condition or capacity of roads, railways, bridges, tunnels, water supply, sewers, electrical grids, and telecommunications
Internal Services Support	The ability of Internal Services to support critical program functions, services, and processes as perceived by their customers
Pollution Prevention	Prevention or reduction in the occurrences of pollution (air, ground, water)
Recycle/Reduce/Reuse Rate	Increase in reducing, recycling or reuse of recyclable materials
Resident Satisfaction Rate	Increased resident satisfaction with the delivery of County services
Staff Turnover Rate	Reduced staff turnover (excluding retirees)
Transparency	Increased ease of access to public information

PERFORMANCE CLACKAMAS STRUCTURE

Plan Organizational Structure: Lines of Business and Programs

Business Services

- Administrative
 Services
- Account Services
- Financial Management

Capital Planning and Management

- Asset Management
- Capital Delivery

Environmental Services

- Environmental Monitoring
- Permit Services
- Watershed Protection

Operations

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

LINE OF BUSINESS: BUSINESS SERVICES

PURPOSE STATEMENT

The purpose of the Business Services Line of Business is to provide administrative, financial, and utility relations services to WES staff, the WES Advisory Committee, and the Board of County Commissioners so they can provide cost-effective, well-managed services and information to our communities.

PROGRAMS

- Administrative Services
- Account Services
- Financial Management

KEY MEASURES

- By 2025 complete and implement a department Workforce Plan (Administrative Services)
- 80% of stakeholders agree that WES is providing reliable clean water services at a reasonable rate (Administrative Services)
- By 2025 60% of utility customers utilize online and automated phone system account management options to make payments (Account Services)
- Annually earn GFOA's Certificate of Achievement for Excellence in Financial Reporting and Distinguished Budget Presentation Awards (Financial Management)

LINE OF BUSINESS: CAPITAL PLANNING AND MANAGEMENT

PURPOSE STATEMENT

The purpose of the Capital Planning and Management Line of Business is to provide capital planning, design, construction, and asset management services to ensure sustainable, reliable service delivery and support the growth and vitality of our communities.

PROGRAMS

- Asset Management
- Capital Delivery

KEY MEASURES

- Annually submit a prioritized list of proposed renewal, replacement and operational efficiency capital projects, including impact if not implemented (Asset Management)
- By 2025 complete the Tri-City WRRF Outfall Project design (Capital Delivery)

LINE OF BUSINESS: ENVIRONMENTAL SERVICES

PURPOSE STATEMENT

The purpose of the Environmental Services Line of Business is to provide monitoring, permitting, and pollution prevention services to WES staff, permit applicants, and our communities so they can access and appropriately use WES' infrastructure, and understand their potential impact on water quality.

PROGRAMS

- Environmental Monitoring
- Permit Services
- Watershed Protection

KEY MEASURES

- Annually collect 90% of planned flow monitoring and rain gauge data (Environmental Monitoring)
- 80% of sanitary sewer and storm plan reviews are completed within 3 weeks of submittal (Permit Services)
- 50% of inspected businesses comply with storm water standards upon initial inspection, as evidenced by adequate pollution controls and storm system maintenance (Watershed Protection)

LINE OF BUSINESS: OPERATIONS

PURPOSE STATEMENT

The purpose of the Operations Line of Business is to provide wastewater treatment, water resource recovery, and collection and conveyance services to care for clean water infrastructure, and to protect the natural environment and public health of our communities.

PROGRAMS

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

KEY MEASURES

- By 2025 obtain Oregon DEQ approval for WES' Recycled Water Plan (Resource Recovery)
- 10% of wastewater collection system cleaned annually (Field Operations)
- 85% average monthly removal of pollutant parameters (BOD and TSS) at all WES wastewater facilities (Plant Operations and Maintenance)



PROGRAM: ADMINISRATIVE SERVICES

Purpose Statement

The purpose of the Administrative Services Program is to provide efficient and effective administrative, human resources, and communication and engagement support to WES staff so they can provide well-managed services and information to customers and stakeholders.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Build Public Trust Through Good Government	Transparency	Increased in easy access of public information

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	By 2025 complete and implement a department Workforce Plan	Staff Turnover Rate	Workforce Planning and Development
Customer	80% of stakeholders agree that WES is providing reliable clean water services at a reasonable rate	Transparency	Stakeholder and Community Engagement
Ratio	Training hours / Full Time Equivalent (FTE) employee	Staff Turnover Rate	Workforce Planning and Development
Output	# employee evaluations completed per year	Staff Turnover Rate	Workforce Planning and Development

Board Presentations and Recommendations	Performance Management Support
Communication Services	Personnel Certification Inventory
Continuity of Operations Plans (COOP)	Personnel Management
Emergency Response Plans	Records Management
Intergovernmental Agreements	Regulatory Policy
Labor Management Agreements	Stakeholder Engagement and Relations
Legal Services	Workforce Planning and Development
Legislative Services	

PROGRAM: ACCOUNT SERVICES

Purpose Statement

The purpose of the Account Services Program is to provide our communities and the individuals we serve with reliable, responsive customer service, billing services, and comprehensive account management to ensure customers' expectations and needs are met.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Build Public Trust Through Good Government	Resident Satisfaction Rate	Increased resident satisfaction with the delivery of County services

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	By 2025 60% of utility customers utilize online and automated phone system account management options to make payments	Transparency	Customer Satisfaction
Customer	80% of customers are satisfied with WES' efforts to communicate with customers	Resident Satisfaction Rate	Customer Satisfaction
Ratio	# utility accounts certified / total utility accounts	Resident Satisfaction Rate	ŕ
Output	# utility accounts enrolled in WES' Customer Assistance Programs	Diversity Equity and Inclusion	Customer Satisfaction

Account Management	New Account Setup
Assessment Management	Payment Processing and Deposits
Collections and Delinquency Management	Property Tax Certifications for Past-Due Balances
Commercial Account Consumption Updates	Refund Processing
Credit Balance Escheatment	Service Order Generation
Customer Assistance Programs	Stop/Start Service Requests
Customer Inquiry Responses	Utility Billing
Miscellaneous Billing	Walk-up Counter Reception

PROGRAM: FINANCIAL MANAGEMENT

Purpose Statement

The purpose of the Financial Management Program is to provide accurate and timely budget development and monitoring, financial reporting and compliance, analysis, and forecasting services to WES staff, the WES Advisory Committee, the Board of County Commissioners, bondholders, and the community so they have the necessary resources to achieve strategic results and make informed financial decisions.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Build Public Trust Through Good Government	Affordable Services	Affordability of County services through rates and fees

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	Annually maintain a mid-range or low impact rating for total annual cost of wastewater service relative to lowest quintile household income	Affordable Services	Financial Viability
Result	Annually earn GFOA's Certificate of Achievement for Excellence in Financial Reporting and Distinguished Budget Presentation Awards	Transparency	Financial Viability
Customer	70% of customers are satisfied with WES' efforts to control costs and rates	Affordable Services	Financial Viability
Ratio	Actual operating expenses / budgeted operating expenses	Affordable Services	Financial Viability
Output	S&P Global Credit Rating	Bond Rating	Financial Viability

Accounts Payable	Fixed Asset Reporting
Annual Comprehensive Financial Reports	General Ledger Accounting and Journal Entries
Budget Development and Monitoring	Grant Monitoring
Credit Rating and Investor Relations	Internal Control Development and Monitoring
Debt Management	Internal Financial Reporting and Analysis
Department Cost Allocations and Indirect Cost Rates	Long-term Financial Planning and Forecasting
Department Financial Policies	Payroll Support and Reporting
External Financial Reporting and Compliance	Procurement Coordination
Fee Modifications	Property and Liability Insurance Management
Financial Presentations	Rate Modeling
Financial Strategies	Supplemental Budgets

PROGRAM: ASSET MANAGEMENT

Purpose Statement

The purpose of the Asset Management Program is to provide strategies, technology and asset tracking services to WES staff so they can make proactive, data-driven decisions that support cost-effective sustainable delivery of reliable high quality services.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Build Strong Infrastructure	Infrastructure Condition	Improvement in the condition or capacity of roads, railways, bridges, tunnels, water supply, sewers, electrical grids, and telecommunications

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	Annually submit a prioritized list of proposed renewal, replacement and operational efficiency capital projects, including impact if not implemented	Infrastructure Condition	Asset Management
Customer	100% of new assets mapped and entered into computerized maintenance management system (CMMS) within 3 months of construction acceptance	Infrastructure Condition	Asset Management
Ratio	Miles of wastewater pipe condition assessments competed / total miles of wastewater pipes	Infrastructure Condition	Asset Management
Output	# annual condition assessments completed	Infrastructure Condition	Asset Management

Asset Condition Reports	Geographic Information System (GIS) Databases
Asset Inventories	Maps
Asset Management Strategies	Reporting
Asset Renewal/Replacement Plans	Software Evaluations and Pilot Testing
Computer Hardware Acquisitions	Strategic Information Systems Plans
Computer Software Licensing, Support and Training	System Implementations and Upgrades
Fleet Management	

PROGRAM: CAPITAL DELIVERY

Purpose Statement

The purpose of the Capital Delivery Program 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.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Build Strong Infrastructure	Infrastructure Condition	Improvement in the condition or capacity of roads, railways, bridges, tunnels, water supply, sewers, electrical grids, and telecommunications

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	By 2025 complete the Tri-City WRRF Outfall Project design	Business Growth	Capital Planning and Delivery
Result	By 2025 complete the Intertie 2 Pump Station Expansion and Force Main Project design	Business Growth	Capital Planning and Delivery
Result	By 2024 complete the Three Creeks Water Quality Project design	Clean Water	Capital Planning and Delivery
Customer	60% of WES customers are satisfied with WES' planning and investments in infrastructure	Infrastructure Condition	Capital Planning and Delivery
Ratio	Actual capital expenses / budgeted capital expenses	Infrastructure Condition	Capital Planning and Delivery
Output	\$ partner city I/I reduction projects WES funds annually	Transparency	Capital Planning and Delivery

Services

Asset Reliability and Operational Efficiency Project Delivery

Capital Improvement Plans (CIP)

Capital Project Grant Funding Applications

Capital Improvement Plan Project Delivery

Construction Management

Inflow and Infiltration Reports

Project Engineering and Design

Sanitary Sewer Master Plans

Stakeholder Technical Advisory Team Leadership

Storm System Master Plans

Wastewater Collection System Master Plans

Wastewater Collection System Hydraulic Models

Wastewater Facilities Master Plans

PROGRAM: ENVIRONMENTAL MONITORING

Purpose Statement

The purpose of the Environmental Monitoring Program is to collect and analyze samples, and report results to WES staff so they can operate the water resource recovery facilities and collection systems effectively, track performance, and comply with regulatory permit requirements.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Build Public Trust Through Good Government	Internal Services Support	The ability of Internal Services to support critical program functions, services, and processes as perceived by their customers

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	Annually collect 90% of planned flow monitoring and rain gauge data	Internal Services Support	Utility Operations & Environmental Protection
Customer	80% of test results are ready to report to customers within 15 days of receiving a sample	Internal Services Support	Utility Operations & Environmental Protection
Ratio	Total Environmental Monitoring program cost / total number of lab tests	Internal Services Support	Utility Operations & Environmental Protection
Output	# surface water and wastewater tests completed	Internal Services Support	Utility Operations & Environmental Protection

Data Analysis	Monitoring Device Installation
Data Downloads	Monitoring Plans
Discharge Quality Alerts	Sample Analyses
Lab Accreditations	Sample Collections
Lab Procedures	Sampling Schedules
Lab Reports	Stream Health Reports

PROGRAM: PERMIT SERVICES

Purpose Statement

The purpose of the Permit Services Program is to provide permit consultation, review, and approval services to developers, businesses, and industrial users so they can efficiently connect to WES' infrastructure, and appropriately discharge wastewater and stormwater.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Grow a Vibrant Economy	Business Growth/ Construction Growth	Increased business revenue, GDP and expansion; construction opportunities, including permitting

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	80% of sanitary sewer and storm plan reviews are completed within 3 weeks of submittal	Construction Growth	Customer Satisfaction
Customer	50% of sanitary sewer and storm plans are approved in three or fewer submittals	Construction Growth	Customer Satisfaction
Ratio	Total value of privately-built donated capital / total Permits Program cost	Business Growth	Capital Planning and Delivery
Output	# permitted Equivalent Dwelling Units (EDUs)	Business Growth	Capital Planning and Delivery

Assessment Districts	Industrial User Surveys
Design Standards	Industry Enforcement Actions
Development Agreements	Industry Inspections
Development Compliance Inspections	Infrastructure Inspections
Development Enforcement Actions	Maintenance Agreements
Development Plan Reviews	Permit Consultations
District Annexations	Pre-application Conferences
Easements	Regulatory Compliance Reports
Erosion Control Permits	Rules & Regulations
FOG Inspections	Single Family Residential Permits
Hauled Waste Discharge Permits	Water Resource Buffer Permits
Industrial User Permits	

PROGRAM: WATERSHED PROTECTION

Purpose Statement

The purpose of the Watershed Protection Program is to provide surface water management, watershed restoration, and watershed health education services to our communities so they can benefit from healthy and clean water.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Honor, Utilize, Promote & Invest in Natural Resources	Clean Water	Increased availability of clean water to residents for all activities

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	50% of inspected businesses comply with stormwater standards upon initial inspection, as evidenced by adequate pollution controls and storm system maintenance	Pollution Prevention	Utility Operations & Environmental Protection
Customer	70% of WES customers are satisfied with WES' efforts to educate customers on water quality practices	Pollution Prevention	Stakeholder and Community Engagement
Ratio	# streams meeting or exceeding Oregon's water quality criteria / # streams monitored within WES' jurisdiction	Clean Water	Utility Operations & Environmental Protection
Output	# schools participating in WES' Watershed Health Education Program	Clean Water	Stakeholder and Community Engagement

Community Watershed Events	Storm System Inspections
Conservation Land Acquisition	Stream/Wetland Restoration
Illicit Discharge Response	Surface Water Compliance Reports
Pollution Prevention	Watershed Assessments
RiverHealth Stewardship Grants	Watershed Health Education

PROGRAM: RESOURCE RECOVERY

Purpose Statement

The purpose of the Resource Recovery Program is to provide energy conservation, water reuse, and recycled solids coordination and support services to better utilize renewable sources of nutrients, recycled water and energy produced at WES facilities and build a more sustainable and climate resilient future for our communities.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Honor, Utilize, Promote & Invest in Natural Resources	Recycle/Reduce/ Reuse Rate	Increase in reducing, recycling or reuse of recyclable materials

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	By 2025 obtain Oregon DEQ approval for WES' Recycled Water Plan	Recycle/Reduce/Reuse Rate	Utility Operations & Environmental Protection
Customer	70% of WES customers are satisfied with WES' efforts to protect the environment	Resident Satisfaction Rate	Utility Operations & Environmental Protection
Ratio	Metric tons of wastewater biosolids landfilled / total metric tons of wastewater biosolids produced	Recycle/Reduce/Reuse Rate	Utility Operations & Environmental Protection
Output	kWh electricity produced by WES' wastewater facilities	Recycle/Reduce/Reuse Rate	Utility Operations & Environmental Protection

Biosolids Compliance Reports	Energy Use Analysis
Biosolids Land Application	Recycled Water Compliance Reports
Biosolids Management Plans	Recycled Water Plans
Biosolids Sample Collections	Resource Conservation Projects
Biosolids Site Authorizations	Solids Disposal
Energy Assessments	Water Reuse
Energy Conservation and Generation Projects	

PROGRAM: FIELD OPERATIONS AND MAINTENANCE

Purpose Statement

The purpose of the Field Operations and Maintenance Program is to maintain the public storm and wastewater collection systems so our communities can benefit from properly functioning infrastructure with assets optimized to protect property, infrastructure, and clean water.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Build Strong Infrastructure	Infrastructure Condition	Improvement in the condition or capacity of roads, railways, bridges, tunnels, water supply, sewers, electrical grids, and telecommunications

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	10% of wastewater collection system cleaned annually	Pollution Prevention	Asset Management
Customer	90% of service requests are responded to within 24 hours of receiving	Infrastructure Condition	Customer Satisfaction
Ratio	Sanitary Sewer Overflows (SSOs) / 100 miles of pipe	Pollution Prevention	Asset Management
Output	# miles of wastewater collection pipe inspected and cleaned annually	Infrastructure Condition	Utility Operations & Environmental Protection

Emergency Responses	Utility Locates
Service Request Responses	Wastewater Collection System Inspections
Storm System Inspections	Wastewater Collection System Maintenance
Storm System Maintenance	Wastewater Collection System Maintenance Plans
Storm System Maintenance Plans	Wastewater Collection System Repairs
Storm System Repairs	

PROGRAM: PLANT OPERATIONS AND MAINTENANCE

Purpose Statement

The purpose of the Plant Operations and Maintenance Program is to effectively clean wastewater, maintain equipment and facilities, and recover renewable resources, while meeting or surpassing environmental, safety and public health standards, to protect the vitality of our communities.

BCC Strategic Priority Alignment

Strategic Priority	Primary Program Indicator	Evidenced By
Honor, Utilize, Promote & Invest in Natural Resources	Clean Water	Increased availability of clean water to residents for all activities

Performance Measures

Measure Type	Measure	BCC Indicator	WES Strategic Priority
Result	Zero annual occurrences of permit violations that result in fines or penalties	Transparency	Utility Operations & Environmental Protection
Result	85% average monthly removal of pollutant parameters (BOD and TSS) at all WES wastewater facilities	Clean Water	Utility Operations & Environmental Protection
Customer	70% of WES customers are satisfied with WES' efforts to provide reliable service	Clean Water	Stakeholder and Community Engagement
Ratio	Scheduled preventative maintenance / unscheduled reactive maintenance	Infrastructure Condition	Asset Management
Output	# gallons of wastewater treated	Clean Water	Utility Operations & Environmental Protection

Services

Air Quality and Odor Control Permit Renewals Air Quality Reports **Proactive Maintenance Plans** Critical Supply Management Renewable Energy Generation Solids Recovery Emergency Repair and Inclement Weather Responses Safety Program Management **Equipment Inspections** Safety Inspections **Equipment Maintenance and Repair** Wastewater Sample Collection **Facility Inspections** Wastewater Treatment Facility Maintenance and Repair **Facility Tours**

GLOSSARY

Asset Inventory - A comprehensive listing of all WES-owned, operated and/or maintained assets (infrastructure, equipment, fleet, stormwater control structures, etc.)

Asset Management - A systematic process of utilizing, maintaining, upgrading, replacing and disposing of existing assets.

Board of County Commissioners (BCC) - WES' governing body.

Bonds - A written contract for payment of a sum of money at a future date, with interest paid at an agreed rate on a set schedule.

BOD - Biochemical oxygen demand (BOD) is a measure of the concentration of wastes in wastewater. Pounds of BOD is the measure of the loading (or total amount of the wastes) to the treatment plants.

Budget - The local government's financial plan for one fiscal year.

Capital Expenditures - Expenditures that result in acquisition of, or addition to, fixed assets.

Capital Improvement Plan - A plan for capital expenditures to provide long-lasting physical improvements, the cost of which is to be incurred over a fixed period of several years.

Clean Water - the protection and enhancement of water quality. WES protects and enhances water quality by providing wastewater services, stormwater management, and environmental education.

Clean Water Act - Federal laws require cleanup of our waterways through the Clean Water Act of 1972. The major goal of this act is to restore and maintain the chemical, physical, and biological integrity of the nation's water. Administered by the Environmental Protection Agency.

Collection System - The pipes, pumping stations, and other infrastructure associated with the collection and transportation of wastewater and stormwater.

Compliance - Alignment with guidelines, regulations and legislation set by outside parties such as EPA, DEQ and industry organizations.

Cost-Effective - Economical in terms of tangible benefits produced in exchange for money spent.

Credit Rating - An assessment of credit worthiness, or the ability and willingness of the agency issuing a bond to repay the investors.

Customer Assistance Program - A program that uses bill discounts, special rate structures, and/or other means to help financially constrained customers maintain access to services.

Effective Utility Management - A comprehensive water sector utility performance assessment and management framework, endorsed by the U.S. Environmental Protection Agency and ten national water sector associations dedicated to improving products and services, increasing community support for water services, and ensuring a strong and viable utility into the future.

Equivalent Dwelling Unit (EDU) - A unit of measurement of sewer usage that is assumed to be equivalent to the usage of an average single family home. EDU's are used to establish user charges for service and connection costs (i.e. System Development Charges).

Expenditure - The incurring of a liability or the payment of cash for the acquisition of a good or service.

Fiscal Year - A 12-month period to which the annual operating budget applies. July 1st through June 30th for WES.

Full-time Equivalent (FTE) - The ratio of time spent in any position to that of a full-time position. An employee working full-time for one year is 1.0 FTE; an employee working equivalent to 6 months is 0.5 FTE.

GIS - Geographic Information System. A computer-based tool which allows for the storage, analysis, management and presentation of spatial and/or geographically linked data.

Infrastructure - The large-scale public systems, services, and facilities of a region that are necessary for economic and community activity, including power, water, and sewer services, public transportation, telecommunications, roads and schools.

Lines of Business - A set of programs that have a common purpose or result.

Lowest Quintile Household Income - The annual household income for the lowest 20% of income earners in an area

Mission Statement - An explanation of WES' purpose expressed in terms of who we are, what we do, and why we matter

Organizational Unit - Any administrative subdivision of the local government, especially one charged with carrying on one or more specific functions (such as department, office or division).

Partner Communities - Within the boundaries of the three service areas managed by Water Environment Services are cities, hamlets, neighborhoods, and other subsets of our region. These communities are our partners in wastewater resource recovery and watershed protection. We work together to create and maintain a healthy environment to live, work and play within.

GLOSSARY

Performance Measures - Objective methods (quantitative and/or qualitative) for evaluating the Department's progress toward its stated goals.

Pollutant Parameters - Parameters that are frequently sampled or monitored for tracking water quality.

Preventative Maintenance - Scheduled maintenance that is performed on a piece of equipment before failures occur. Consumables are replenished, and assets refurbished on a set time scale in order to fully utilize the usable life of an asset.

Program - A group of activities with a common purpose that carries out the Department's Mission and produces results for customers.

Pump Station - A pumping facility which lifts wastewater flow to a sufficient enough elevation to allow it to flow by gravity.

Rates - The amount of money charged per unit of service provided.

Reactive Maintenance - Infrastructure maintenance activities that are not pre-scheduled.

Recovered Solids - The organic solids recovered from the waste stream which have been treated and stabilized to make them available for recycling through utilization of the nutrient content as a soil amendment or as a source for energy production.

Resource Recovery - The recovery of clean water, energy and nutrients from wastewater; also a specific program of WES that carries out these functions.

Risk-based management - The organization, deployment and controlling of resources and assets based on assessments of criticality, failure risk and potential, and reliability analysis.

Rules and Regulations - A comprehensive set of guidelines established to serve a public use and promote an orderly and uniform administration of WES affairs.

Staff Turnover - The number of employees who leave an organization during a specified time period.

Stakeholder - A stakeholder is defined as anyone who can affect or be affected by WES, including customers, oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programs, and risk management decisions.

Strategic Planning - A formal process through which departments analyze, align and explain what they do in terms of achieving results for their customers. Each department articulates its Mission and then organizes itself into Programs and Activities designed to carry out that mission, facilitate decision-making and resource allocation, and report progress.

Stormwater - Storm runoff from impervious surfaces that may contribute to surface water pollution since storm drains, ditches, and culverts lead to the nearest river, stream or wetland.

Surface Water - Streams, wetlands, rivers and springs that can be impacted by activities in the watershed.

Violation - An infringement on a law, regulation, or rule.

Vision Statement - An explanation of what WES is working towards and where we want to be in the future.

Wastewater - The used water from homes and businesses, which may be a combination of liquid and water-carried domestic or industrial wastes from buildings, together with any groundwater and stormwater that may be present.

Watershed - The land that water flows across, or under, on its way to a stream, lake or river. Watersheds are sometimes referred to as drainage basins or drainage areas.

WES Advisory Committee - The Clackamas Water Environment Services Advisory Committee provides input and makes recommendations on surface water and wastewater issues affecting the WES service area.

Workforce Plan - A comprehensive plan detailing the current state of a workforce, existing competencies, competency gaps, and forecasted needs for the future.

Water Resource Recovery Facility (WRRF) – A facility that processes wastewater to remove pollutants and contaminants and produce treated water that can be safely discharged into the environment or reused. Also known as a wastewater treatment plant.

ACRONYMS AND INITIALISMS

BCC - Clackamas County Board of County Commissioners

BOD - Biological Oxygen Demand

CIP - Capital Improvement Plan

CMMS - Computerized Maintenance Management System

COOP - Continuity of Operations Plan

DEQ - Department of Environmental Quality

EDU - Equivalent Dwelling Unit

EPA - Environmental Protection Agency

EUM - Effective Utility Management

I/I - Inflow and Infiltration

SSO - Sanitary Sewer Overflow

TSS - Total Suspended Solids

WES - Water Environment Services

WRRF - Water Resource Recovery Facility



