

Portland Water District



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Portland Water District Budget – Reader’s Guide

Welcome to the Portland Water District’s 2019 Budget document. This document is intended to provide practical and pertinent information about the Portland Water District’s (PWD’s) financial planning, policies, goals and priorities for 2019 and beyond. The book holds a wealth of information including how water and wastewater revenues are used to support infrastructure and fund future years’ development.

This Budget is a Policy Document.

It describes financial and operating policies, goals, and priorities for every fund and department of PWD for the coming year and for our 5-year planning horizon. Our Mission Statement, Strategic Goals, and Board Established Guidelines are found in the Introduction section. Significant Financial Policies are described in the section with that title.

This Budget is a Financial Plan.

It describes the costs of the services provided by PWD and how they are funded. The Revenue section presents the projected revenues from water sales, wastewater assessments, interest and other income. The Departmental Expense section details expenditures by category and also by department for the Water Operations, Wastewater Operations, Environmental Services, Engineering Services and Administrative Services Departments. The Capital Expenditures section presents details of major projects planned for 2019 and projected projects through 2023.

This Budget is a Means of Communication.

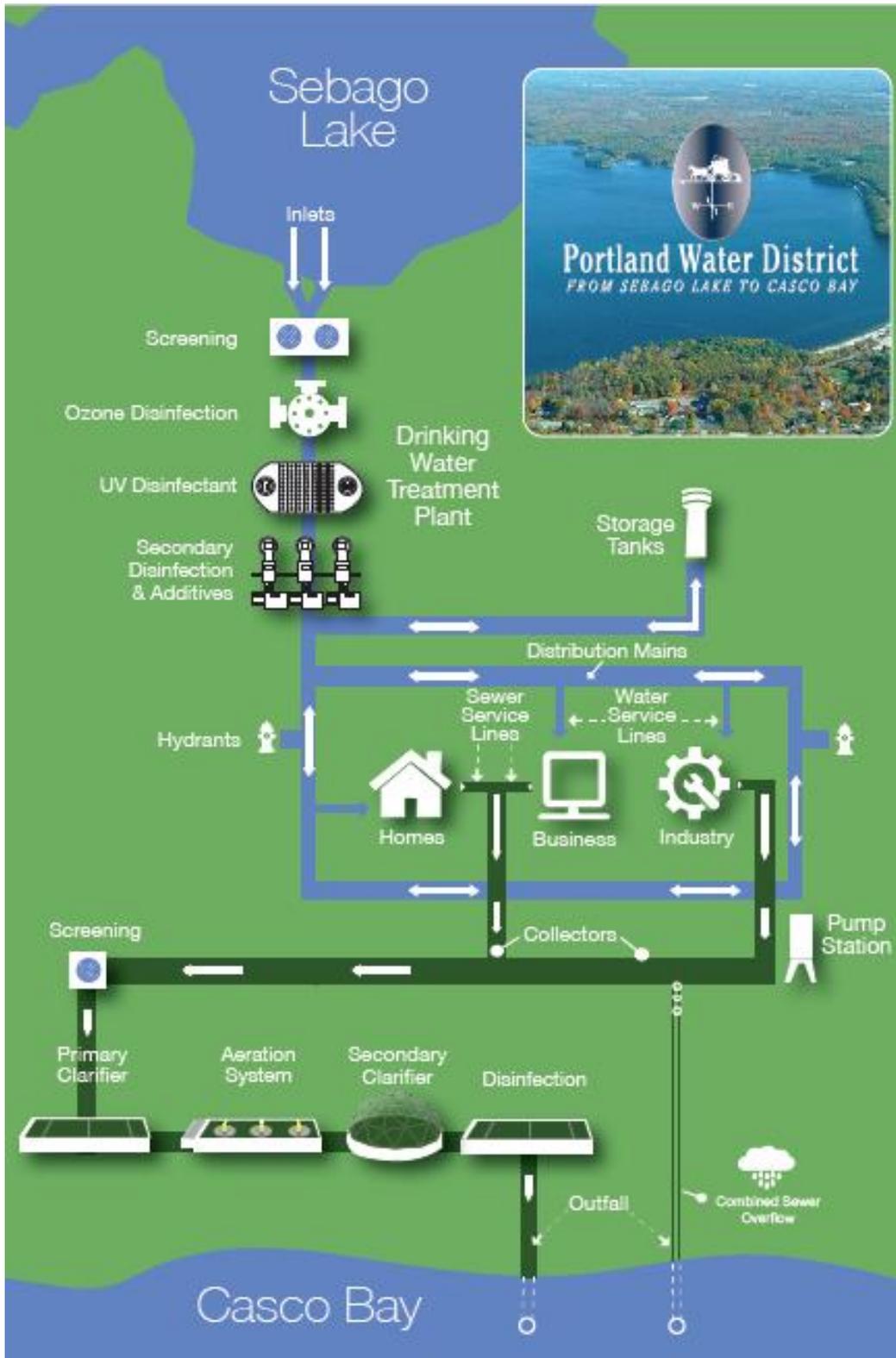
This budget is an easy-to-read document with summary information in charts and graphs that complement the details in the text. The Letter from the General Manager and Treasurer presents an organizational and financial overview of PWD. The budget for each fund- one water fund and six wastewater funds, one for each community served- is described in detail. Supporting information about the Portland economy, water benchmarks and results of a Customer Satisfaction Survey are included in the Appendix.

This Budget is an Operations Guide.

It shows each Department’s organizational chart and budget overview, followed by a detailed budget which includes goals, performance benchmarks and accomplishments for each. Current year projects and initiatives are described in detail. Following the operating budgets are sections for Human Resources, Capital Finance and Financial Policies.

Overview of the Water and Wastewater System

The diagram provides a schematic of the District system with common infrastructure terms.





Portland Water District

F r o m S e b a g o L a k e T o C a s c o B a y

October 22, 2018

To the Members of the Board of Trustees,

On behalf of the entire Management Team, we are pleased to submit for your consideration the Portland Water District's Comprehensive Annual Budget Proposal for 2019. The document is designed to present the comprehensive financial framework for all District activities for the budget year. As you consider the budget for our upcoming 111th year, please reflect on our accomplishments, present challenges and opportunities, and future aspirations. Our dedicated staff of 182 employees works every day to ensure that clean and healthy tap water is delivered to the 210,000 inhabitants of Greater Portland, that adequate water is available for fire protection, and that wastewater is treated to remove pollution and protect the environment.

Water Services

Water Services ensures that safe, clean and healthy drinking water is delivered throughout the 11 communities in our water service area. It all starts at the Sebago Lake. Because of the excellent raw water quality and strong watershed protection program, the District was granted a waiver from filtration by the Environmental Protection Agency. The District's continued compliance with the terms of this waiver saves ratepayers the significant costs of financing, constructing and operating a filtration plant. At the Sebago Lake Water Treatment Facility, over 21 million gallons of water are treated each day using the powerful disinfectants of ozone and ultraviolet light.

After treatment, drinking water is distributed through a system of 1,000 miles of water mains, three major pump stations, and ten storage facilities. Infrastructure age, cold winter temperatures, and the underground location of many of our assets challenge staff to operate and maintain the system with minimal disruption. Since 2010, we have invested over \$43 million in water main renewal.

In 2019, initiatives include setting up the new portable pumper to be ready to provide emergency service, testing more large water meters for accuracy, and implementing the updated Cross Connection Control Program. A staff of 54 and a proposed operating budget of \$25.5 million and capital budget of \$12.8 million supports these activities.

Wastewater Services

Wastewater treatment is a vital community service that protects public health and the environment. Four wastewater treatment plants operated by the District remove, on average, nearly 95% of the pollution from the 21 million gallons of wastewater that is received at the plants daily from the six

communities served. The clean water is safely released into the aquatic environment and much of the biosolids that remain are converted into compost and energy. Staff manages the collection system consisting of 118 miles of pipe and 76 pump stations that convey wastewater to the plants.

In 2019, initiatives include continued effort on nutrient optimization, working with municipal partners and their efforts to further manage and mitigate peak wet weather flows, and participating in the City of Portland's Integrated Planning effort. A staff of 38 and operating and capital proposed budgets of \$9.6 million and \$9.3 million, respectively, support these activities.

Engineering Services

The Engineering Services Department provides engineering and maintenance services to internal customers (Water, Wastewater and Administrative Departments) and collaborates with external customers, including communities and developers. They oversee design and construction of water and sewer infrastructure, support long range planning, operate and maintain facilities, and support instrumentation. These functions are carried out with an asset management approach to infrastructure acquisition and maintenance.

In 2019, Engineering Services efforts include management of \$8.8 million of water main replacements and the major capital projects including the design of the Windham Water Storage Tank and construction of the Cape Elizabeth Wastewater Treatment Facility UV Treatment installation. A staff of 31 and a proposed budget of \$4.4 million support these activities.

Environmental Services

The District's Environmental Services Section of the Engineering Services Department monitors and protects water quality from watershed to tap and wastewater from collection to discharge. The Water Resources Group champions the protection of Sebago Lake through source protection, environmental education and outreach, and security. The Laboratory Services Group provides certified analytical testing and operational support to water and wastewater treatment plants and oversees the Industrial Pretreatment Program.

In 2019, Environmental Services initiatives include monitoring to comply with the Unregulated Contaminants Monitoring Rule, collaborating with partners to expand educational programs and continued development of a fund to support forest conservation. A staff of 15 and proposed budget of \$2.1 million support these activities.

Administrative Services and Employee Services Departments

The Administrative and Employee Services Departments support the Engineering, Water and Wastewater Services Departments. In addition, Corporate Counsel and the Public Relations Manager stand ready to serve the District and our customers. Within the Administrative Services Department, the Information Services group provides computer system and technology oversight and maintenance. Financial Services provides purchasing, payroll and financial transaction processing and the Customer Service Group maintains a call center and provides billing services. The Employee Services Department handles employee recruitment and development, benefits administration and safety.

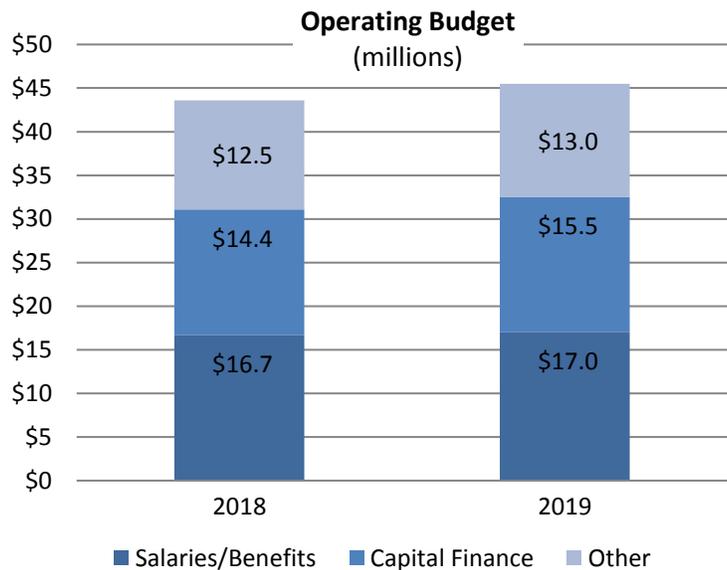
In 2019, Administrative Services will focus on maintaining current service levels while participating heavily in the design and implementation of the new billing system and updating other systems. Employee Services will be promoting supervisory workshops and reviewing and updating policies. A staff of 42 and a proposed budget of \$5.8 million support these activities.

Financial Overview

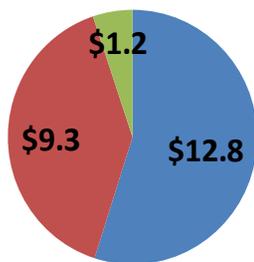
The proposed budget for 2019 recommends \$45.5 million for operations and \$23.3 million for the first year of a five-year Capital Improvement Plan. The operating budget consists of three major expense categories – salaries/benefits (37%), capital finance (34%) and all other materials and services (29%). Salaries reflect the same number of employees, 182, and a wage adjustment of 3.0% (\$436,000). Benefit costs decreased \$82,000, primarily due to lower pension costs. Capital financing costs are \$1.1 million higher primarily due to debt service on bonds issued to finance water main renewals and upgrades in the 407 Zone. Total other expenses increased \$470,000, or 3.7%, from the prior year.

The significant changes in specific other expense line items include:

- Higher contracted services (\$219,000) due to additional costs related to annual ABC maintenance costs,
- Higher biosolids disposal costs (\$170,000) reflecting higher volume of material being generated by the wastewater plants,
- Higher chemical costs (\$161,000) due to expected price increases, and
- Lower electricity costs (\$184,000) reflecting a decline in Central Maine Power delivery and Constellation energy charges



Capital Budget (millions)



- Water Systems
- Wastewater Systems
- General Assets

The \$12.8 million water capital budget includes \$8.8 million replacing aging water mains and \$2.5 million installing a new tank in the 407 Zone (Ward’s Hill).

The \$9.3 million wastewater capital budget includes \$7.9 million of upgrades at Portland’s East End and Westbrook’s treatment plants.

Additionally, the capital budget includes an investment of \$1.2 million in general assets such as vehicles, computer system and Douglass Street main office.

BUDGET HIGHLIGHTS		
<p>NEW INITIATIVES</p> <p>Investing \$8.5 million in water main renewal; including \$2.0 million through capital reserve fund</p> <p>Implementing a new Asset Management, Billing and Customer Relations computer system (\$4.7 million)</p> <p>Upgrades to the Portland's East End and Westbrook Regional Wastewater Treatment Plants (\$7.9 million)</p> <p>Full year operation of the Industrial Pretreatment Program for the City of Portland</p>	<p>BUDGET SUMMARY</p> <p>The Operating Budget is proposed to be \$45.5 million, an increase of \$1.9 million or 4.4%.</p> <p>Total Revenues are projected at \$45.5 million, which assumes a 4.4% water rate increase and wastewater assessments that meet the municipalities' expectations.</p> <p>The Capital Budget is proposed at \$23.3 million. It continues commitment to invest in water mains and wastewater facilities renovations.</p> <p>Full-time positions remains at 182.</p> <p>The proposed budget continues funding to implement technology solutions for knowledge management, continues to invest in staff training, and provides incentives for multi-skill development.</p>	<p>CHALLENGES AND ISSUES</p> <p>Nutrient optimization approach to manage nitrogen at wastewater facilities</p> <p>Aging infrastructure requires asset replacement</p> <p>Recruiting and retaining new employees and training existing employees to adjust to needed workforce skills</p> <p>Stronger regional economic growth should in time improve revenue growth from new customers.</p>

Customer Impact

The proposed budget assumes a 4.4% rate adjustment effective May 1, 2019. The increase is consistent with the Board's intent to adopt gradual, annual water rate adjustments annually. For a typical customer, the impact is \$10.68 a year or \$0.89 a month. Of the 4.4% rate adjustment, 3.4% will be used for general operation and 1% will be dedicated to fund the capital reserve account that will support a \$2 million bond issue dedicated to main renewal replacements.

Assessments to wastewater communities meet or are lower than municipal expectations. The Assessment for Cumberland remains the same as last year. Cape Elizabeth's, Gorham's, Falmouth's, Portland's, Westbrook's and Windham's assessments increased by 2.1%, 2.5%, 1.3%, 3.0%, 0.3% and 1.7% respectively.

The 2019 budget guidelines established by the Board of Trustees are met in this budget proposal.

- Operating fund expenses are increasing less than 4.5%,
- Wastewater assessments meet the municipal expectations,
- Water rates are affordable and sufficient to meet operational needs,
- Full-time positions are optimized to meet the workload, and
- Investment in our infrastructure continues as planned.

We strive to successfully execute PWD's mission statement and meet corporate goals while providing the best value to our ratepayers both today and into the future.

Carrie Lewis
General Manager

David M. Kane
Treasurer

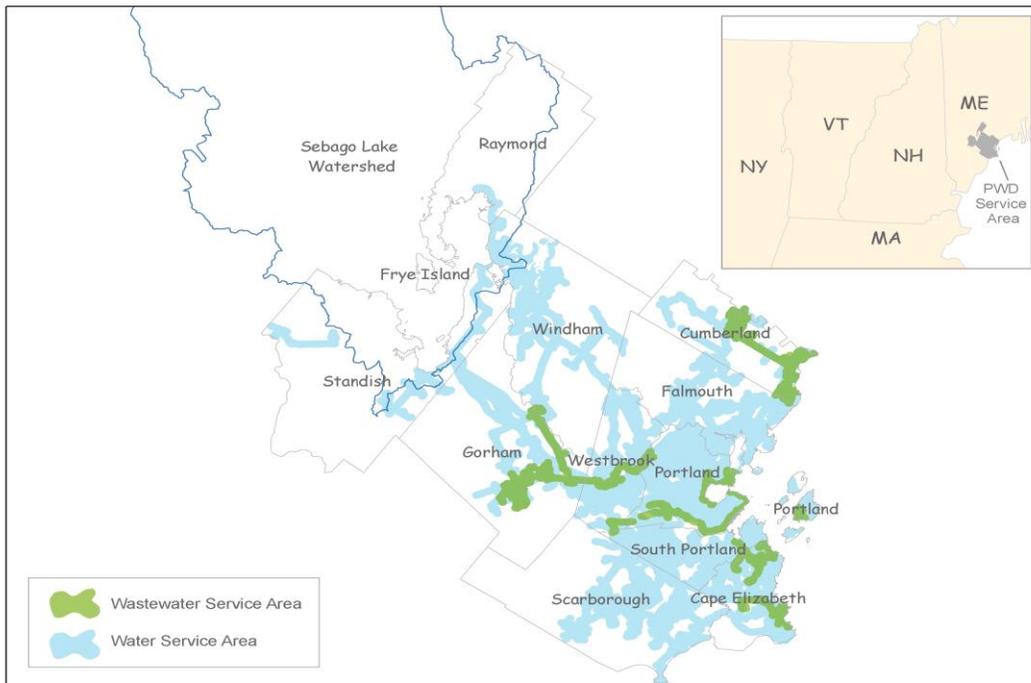
Introduction

The Portland Water District (PWD) is a quasi-municipal utility authorized by state charter to provide water service to eleven Greater Portland communities and wastewater treatment and interception services to six of those communities. Water service is provided to 55,000 customers. Sebago Lake provides virtually all the water delivered. A network of 1,000 miles of water mains delivers water from Sebago Lake to customers. The system provides fire protection through 5,100 fire hydrants and 2,300 sprinkler systems. PWD provides additional wastewater-related services through contracts with the communities. Additional services include sewer billing and collector/storm drain system operations.

Summary of Wastewater Services Provided:

Community	Customers	By Charter:			By Contract:		
		Treatment	Interceptors	Collectors	Storm Drains	Billing	
Cape Elizabeth	2,352	Yes	Yes	No	No	Yes	
Cumberland	1,185	No	Yes	Yes	No	Yes	
Falmouth	1,984	No	No	No	No	Yes	
Gorham	1,854	Yes	Yes	Yes	No	Yes	
Portland	17,114	Yes	Yes	Peaks Island (only)	Peaks Island (only)	Yes	
Scarborough	405	No	No	No	No	Yes	
South Portland	7,901	No	No	No	No	Yes	
Westbrook	4,692	Yes	Yes	No	No	Yes	
Windham	56	Yes	Yes	Yes	No	Yes	

Service Territory



History

In 1862, a group of citizens foresaw the necessity of improving the Greater Portland water supply to support continued growth. Private wells were no longer sufficient for domestic and fire protection use. This group formed the Portland Water Company. In 1869, the first water flowed from Sebago Lake to Portland, and the first water service was turned on in Portland on Thanksgiving Day.

In 1908, the Portland Water District bought the Portland Water Company and the Standish Water and Construction Company, and began serving water to Portland and South Portland. PWD later acquired the Gorham Water Company and the Falmouth Water Company. In the years that followed, Cumberland, Falmouth, Westbrook, Cape Elizabeth, Scarborough, Gorham, and the islands of Casco Bay also began receiving public water from the Portland Water District.

During the next 45 years, Greater Portland grew to be the industrial and financial hub of the state. Growth in the Portland area required several upgrades of the Portland Water District's system, including the construction of water supply systems to serve North Windham, Steep Falls, and Standish. The North Windham system was later decommissioned, partly due to the threat of MtBE contamination.

As a logical extension of its role as the regional water supplier, in the 1960s, the Portland Water District offered to handle and treat the region's wastewater. Since then, PWD constructed treatment plants in Portland (1979), Westbrook (1978), Little Falls (1987), Cape Elizabeth (1987), and Peaks Island (1993). In addition, PWD began providing wastewater maintenance and operating services to the town of Cumberland (1984) and now accepts septage from several Sebago Lake region communities.

During the 1990s water utilities around the country faced tighter regulatory requirements, more informed customers who expected a better product, and the emergence of newly detected contaminants and pathogens, which did not exist or were unidentified in years prior. The Portland Water District rose to meet these challenges with a state-of-the-art ozonation facility (built in 1994), a technologically advanced staff with expanded skills, more sampling and monitoring, and an emphasis on honest and ample communication.

The decade starting in 2000 also witnessed the aging of PWD's wastewater treatment facilities and an increased emphasis on odor control. Portland's East End Wastewater Treatment Facility started undergoing renovations to upgrade the facility and control odors, while a complete evaluation of the Westbrook/Gorham Wastewater Treatment Facility was conducted and upgrades began. Both facilities through the 2010's continue to address aging equipment with the focus in the next couple of years being the aerations systems. The East End project was completed in 2017. The proposed capital improvement plan includes a \$7.9 million Westbrook/Gorham/Windham upgrade in 2020.

In 2001, the Town of Raymond became the tenth member of the District; water service in the town began in 2002.

A focus on aging water mains began in 2011 when the Board committed to double the main renewal budget by 2016. In 2014, the Board established a capital reserve fund to provide an additional \$2 million available for main renewal. A \$8.8 million investment in water main replacement is budgeted for 2019. Also, new regulations required a second water treatment process be installed. In 2014, an ultraviolet process was added along the existing ozonation process.

Top Reasons to Choose Portland, Maine Now

Portland is Maine's business, financial and retail capital and the largest city in the state. Seascapes and cityscapes blend harmoniously in Portland, perched on a peninsula, jutting out into island-studded Casco Bay. The metropolitan hub of Maine's south coast region, Portland is a progressive, lively city incorporating the character of yesteryear into a modern urban environment. Historic architecture blends gracefully with the new as you stroll along her working waterfront or the cobblestone streets of the restored Old Port section of the city. With a metro population of 210,000, the Greater Portland area is home to almost one quarter of Maine's total population.

High quality water delivered to homeowners/businesses and cleaned wastewater delivered back to the environment are a key expectation of our customers. Being a desirable place to visit during the summer contributes to variance in water consumption by almost 40% between winter and summer months. With a high concern for the environment, customers support our efforts to protect our watershed and realize the importance of wastewater treatment in protecting our coastal waters.

Portland: Yes. Life's good here.™

South Portland lands on Money magazine's list of 100 Best Places to Live in U.S. for 2017 9/2017

Portland was named 2014's 19th Most Educated Metro Area in a recent study from the personal finance outlet WalletHub.com.

Portland Named One of America's Most Learned Cities *Back-to-School Report gives high ranks for Portland's educated residents.*

CardHub released its Back-to-School Report, which identifies cities and states with the best learning environments for children. The report listed Portland, Maine is one of twenty cities in the country that had the most highly educated citizens. 9/4/2013

Parenting Magazine named the City of Portland the 3rd Best City in the U.S. for Families. Citing the city's low crime, quality education, and active family living, the magazine described Portland as a "tranquil, kid-friendly city to call home." 7/17/ 2012

Concerned About the Environment

Portland Ranked Seventh "Greenest City" in the United States, according to the readers of Travel & Leisure Magazine. 4/4/2012

Women's Health Magazine ranks Portland #10 - reflecting efforts to make it easy to live healthy active lives in Maine's largest city.
01/18/2013

Great Place to Visit

When it comes to being a food-lovers' city, Portland is no longer a small side dish – it's the main course. Bon Appetit magazine has chosen Portland, Maine, as its "City of the Year," calling it "one of the most unexpected culinary destinations in the country." 9/2018

Portland has a population of 66,000 and 16 microbreweries, the 24th-most in the country. Ranked second in the US by Smartasset

In total, Portland officials expect cruise ships will bring as many as 172,184 passengers this year, the majority in September and October, an 82 percent increase over 2015.

Economic Hub of Maine

Portland was listed as the ninth best city in America for female entrepreneurs and the fifth best city overall for starting a business by NerdWallet in 2016.

Forbes Ranks Portland Area in Top 10 for Job Prospects. 3/3/2012

Techie.com Lists Portland, Maine as One of its 10 Most Unexpected Cities for High-Tech Innovation Techie.com asked innovators, entrepreneurs, and city leaders this question: "What are the most unexpected cities that are leading the high-tech revolution?" 4/8/2013

Portland Economic Scorecard 2015

The Portland Community Chamber issued 'Portland's Economic Scorecard 2015 to help understand how Portland is performing economically. The summary table of results is below and selected charts are included in the Appendix. The scorecard indicates a relatively healthy economy with low unemployment and household income keeping up. Long-term employment and population growth is a concern. The tourist business continues to be strong.

INDICATOR	RATING
Total Employment Growth	Keeping Up ⇌
Business Financial Services and Insurance	Exceeding ↑
Bio-Med, Life Science, and Healthcare	Keeping Up ⇌
Food Production	Lagging ↓
Information Technology	Keeping Up ⇌
Arts, Entertainment, Recreation, Visitation	Exceeding ↑
Creative Occupations Growth	Keeping Up ⇌
Average Wages	Lagging ↓
Unemployment Rate	Exceeding ↑
Gross Metro Product Growth	Lagging ↓
Growth in Value Imports	Lagging ↓
Growth in Value Exports	Exceeding ↑
Total Consumer Retail Sales	Exceeding ↑
City Commercial Vacancy Rate	Keeping Up ⇌
City Population Growth	Keeping Up ⇌
Median City Household Income	Keeping Up ⇌
Educational Attainment	Exceeding ↑
Housing Affordability- Ownership	Lagging ↓
Housing Affordability- Rental	Keeping Up ⇌
Property Valuation	Exceeding ↑
Property Tax Burden	Lagging ↓
Full Value Property Tax Rates	Keeping Up ⇌
Restaurant and Lodging Retail Sales	Exceeding ↑
Hotel Occupancy Rates	Lagging ↓
Overnight Visitors	Lagging ↓
Airline Passenger Counts (Enplanement)	Lagging ↓
Amtrak Downeaster Ridership	Lagging ↓
Crime Rate per 100,000 Population	Keeping Up ⇌

The Regulatory Environment in Which We Function

The Portland Water District functions in a highly regulated environment. Its operations are regulated by federal, state, and local governments, and by a variety of government agencies. The laws and regulations created and implemented by these layers of government affect not only the District's direct operations in a regulatory sense, but its budget as it complies with various government directives.

The District's water operations are governed at the federal level by the Safe Drinking Water Act (SDWA). Originally enacted in 1974, the SDWA allows the Environmental Protection Agency (EPA) to promulgate national primary drinking water regulations to regulate contaminants that may pose health risks and that are likely to be in the public water supply. Under the SDWA, the EPA establishes a maximum contaminant level standard that regulates physical, chemical, biological and radiological substances in the drinking water supply. The best available technology and treatment techniques that are economically and technically feasible must then be used to meet this standard.

The SDWA allows the EPA to delegate to states the primary oversight and enforcement of the law, or primacy, to the state if the state meets certain requirements. The state of Maine has received primacy and its oversight and enforcement program is administered by the Department of Health and Human Services Drinking Water Program.

Wastewater regulation falls under the provisions of the federal Clean Water Act (CWA). Passed in 1972, with significant amendments in 1977 when it became known as the CWA, it is implemented and enforced by the EPA and the Army Corp. of Engineers. The CWA establishes the basic structure for regulating pollutants discharging into the waters of the United States. It gives the EPA authority to implement pollution control programs, such as setting wastewater standards for the industry. The CWA makes it unlawful to discharge a pollutant into navigable waters without a permit (National Pollutant Discharge Elimination System Permit (NPDES)).

As with the SDWA, the CWA provides that the EPA will create rules to implement the law, and will delegate to the state the administration and enforcement of the law on a day-to-day basis. In Maine, the Department of Environmental Protection (DEP) has been delegated this function, with EPA retaining concurrent authority to take enforcement action. The DEP has more stringent monitoring requirements for biosolids, whole effluent toxicity and mercury than the requirements established by the EPA. The District's treatment plants must obtain a discharge permit issued by the DEP utilizing those stricter requirements.

In addition to the environmental regulations which govern the District's operations, the District's water business is also partially regulated by the state Public Utilities Commission under a system of Maine law found in Title 35-A of the Maine Revised Statutes. In 2014, the state legislature passed a bill, An Act to Reform the Regulation of Consumer-Owned Water Utilities (2014 P.L. 2014 chapter 573) which authorized the Commission to grant exemptions of certain portions of Title 35-A. The District filed exemption requests from certain regulations. Effective January 1, 2016, the District is exempt from the Public Utilities Commission regulation related to its water rates and standards of service. Historically, the Public Utilities Commission regulated the District's water business operations through review and approval of the District's Terms and Conditions of Service, and established the rates the District charges

The Regulatory Environment in Which We Function (continued)

for its water services rate adjustments, finance transactions and terms & conditions of service; this function is now performed by the District's elected Board of Trustees.

Local government regulations affect the District's construction activities, as the District must comply with street opening requirements in the municipalities where it conducts construction or repair operations.

The annual costs for the District's wastewater operations are assessed pursuant to the terms of its charter, enacted by the Maine Legislature (Ch. 84, P. & S.L. 1975 as amended through Ch. 18, P. & S.L. 2009). The District's charter provides that prior to January 15 of each year, the District shall determine the total anticipated amount to be raised from the participating municipalities based on the trustees' best estimate of the cost to operate the wastewater and sewage systems for the fiscal year. The amount assessed to the municipalities includes: regional costs, financing costs, and operation and maintenance costs. Municipalities are advised of their yearly assessments by the District and establish their respective sewer user rates considering the District's assessment and the costs of maintaining their respective sewer collection systems. The District's charter governs the manner of assessing participating municipalities and the treatment of any surplus funds existing at the end of a calendar year.

Act to Reform Regulation of Consumer-Owned Water Utilities

In 2014, a state law was enacted allowing the State Public Utilities Commission to exempt certain individual utilities from state regulation, if requested by the utility, or classes of utilities (PUC Rule 6114).

The District filed for exemptions from certain state regulations and the ability to implement local review and rules.

The changes include allowing water rate changes and bond issuance authorizations to be approved solely by the District's publicly elected officials without state commission review.

The exemption request was approved and became effective January 1, 2016.

Water Rate Change Process

In 2019, the District's Board of Trustees will consider a 4.4% rate adjustment. The chart on the next page outlines the process the District will follow in 2019. The District will continue the same Board and public review process and does not require Maine Public Utilities Commission approval.

A Public Utilities Commission rule (chapter 675) allowed for the creation of a capital reserve fund starting in 2014. The fund can be used to pay costs related to water infrastructure. For utilities our size, an additional 10% over other costs may be included in justifying proposed water rates. A system infrastructure assessment (SIA) must be submitted prior to getting approval to fund the reserve. The SIA would include the list of infrastructure projects that will be funded from the reserve. Annual updates of the status of the projects and reserve fund balances are required. The District filed the SIA in October 2013 and has incorporated funding the reserve by designating 1% of the proposed 4.4% rate adjustment for the reserve.

The Regulatory Environment in Which We Function (continued)

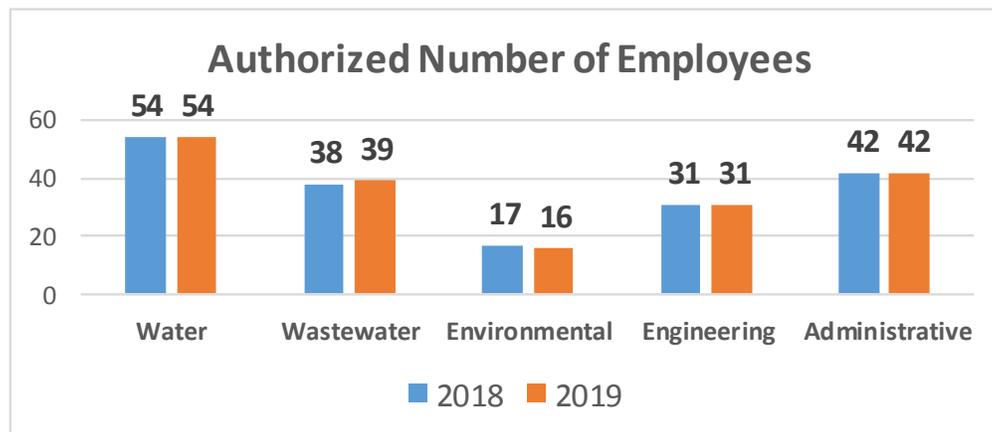
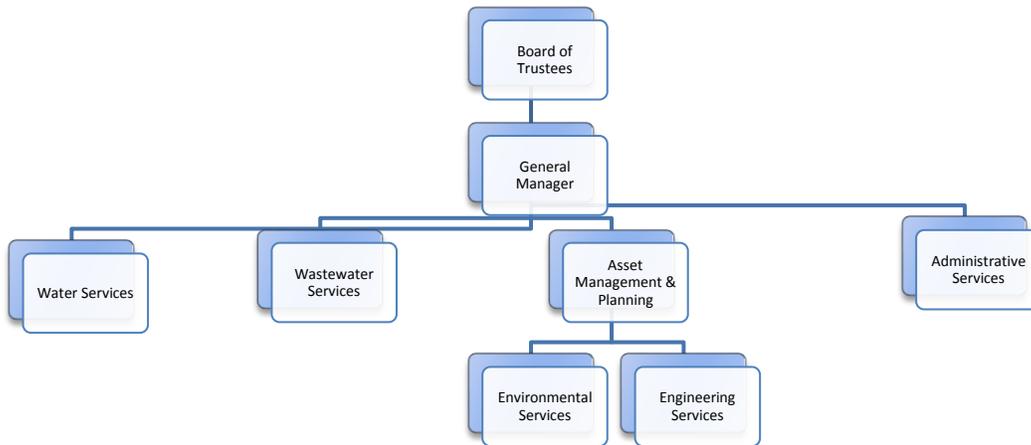
Rate Case Process

The proposed schedule to implement the next year's rate adjustment is as follows:

November 26, 2018	Board approves 2019 Budget.
January 14, 2019	Administration and Finance Committee reviews and makes final recommendation to be sent to customers. Finance staff will provide up-to-date financial information and revenue projections.
January 28, 2019	Board considers approving Administration and Finance Committee's recommendation.
February 11, 2019	Supporting documentation for rate adjustment is available to the Public
February 26, 2019	Publish notice of rate adjustment and provide notice to all customers. Notice is mailed to all customers and includes an invitation to attend the public hearing.
March 11, 2019	Special public hearing on proposed rate adjustment. General Manager and Treasurer provide information supporting the rate adjustment. Public has an opportunity to ask questions and provide feedback to the Board as they consider the proposed rate schedule.
March 25, 2019	Board business meeting – Approve final rate schedule. The final rate schedule incorporates changes based on the public hearing and Board's feedback.
April 27, 2019	File final rate schedule based on public hearing and Board review. Rate schedule is distributed to Maine Public Utilities Commission for informational purposes only.
May 1, 2019	Rate adjustment are effective date.

Organization Structure

The Portland Water District is overseen by an 11-person Board that is publically elected. The Board appoints a General Manager, who oversees the daily operation of the District. Operation is comprised of five departments – Water Services, Wastewater Services, Environmental Services, Engineering Services and Administrative Services.



- **Water Services** provides water treatment and distribution system operation and maintenance.
- **Wastewater Services** provides wastewater treatment and interception/collector system operation and maintenance services. Proposes to add an associate engineer in 2019.
- **Environmental Services** provides watershed protection and laboratory services. Proposes to decrease number of environmental scientists by one.
- **Engineering Services** provides general engineering, facility and vehicle maintenance services.
- **Administrative Services** provides customer, computer, finance and general management services.

A more detailed organization chart and description of services provided are located in the Operating Expense section. The Human Resource section provides more details on the proposed number of employees and 2019 changes.

Annual Planning/Budget Process

An outcome of the annual planning/budget process is a document that outlines the financial and operational plan for the upcoming fiscal year. The resulting annual operating and capital plan provides an overview of the resources expected to be available and how those resources will be used. Decisions made in developing the annual plan incorporate information from other planning processes and sources including the following:

Other Planning Processes and Information Sources:	Budget Document Location:
Mission Statement and Strategic Goals. At the beginning of the annual budget process, management reviews and updates our mission statement and strategic goals. One focus of the review was to identify how resources allocation decisions should be different.	Introduction Section, Mission Statement and Strategic Goals
Annual Budget Guidelines by Board. Board guidelines were established providing important budget parameters.	Introduction Section, Board Established Annual Budget Guidelines
External Factors. A review of the industry, economic, and stakeholders' trends provided information to make better planning decisions.	Introduction Section, External Factors Impacting the Budget
Multi-Year Ratemaking Revenue Projections. Water revenues and wastewater assessments projections are made for three years to assist in rate making. The proposed budget is consistent with the projections.	Individual Fund Projection in the Budget by Fund Section. Summary is included in the Revenue Section.
Capital Master Plans and Asset Evaluations Studies. The proposed budget incorporates recommendations from the various infrastructure plans/studies.	Capital Expenditures Section, Infrastructure and Operational Evaluation Plans
Customer Satisfaction Survey. A review of the customer satisfaction survey's results provided guidance on how best to allocate resources in the upcoming year.	Appendix Section, Customer Satisfaction Survey
Workforce Management. As part of the review of current employee demographics and future employees' needs, action steps were identified. The budget incorporates those action steps.	Human Resource Section, Workforce Management
Financial Policies. Financial policies were reviewed to assure budget decisions were made consistent with good financial standards.	Financial Policies Section
Employee Satisfaction Survey/Comments. General Manager's forum was held to receive input from all employees. A formal survey was conducted in 2018	Human Resource Section, Introduction Section

Planning/Budget Process Calendar

The outline below illustrates the process used to arrive at an adopted budget. The only legal requirement is that wastewater communities must be assessed the budgeted operating budget by January 15th.

May

- 1 Senior Management Team reviews budget process and timeline, stakeholders input, external factors impacting the budget, major policy and resource allocation issues, significant budget uncertainties, and long-term and short-term goals.
- 15 Board reviews the Staff's recommended guidelines and provides policy and high-level direction for the Budget
- 22-26 Senior Managers host meetings with Department Managers to review budget parameters and process

June

- 15 Department Managers submit first draft Operating Budget and conceptual-level Capital & Non-capital projects and initiatives

July

- 16 Senior Management Team provides feedback on first draft submittal and Board feedback
- 20 Department Managers submit second draft Operating Budget and preliminary-level Capital & Non-capital projects and initiatives.

Aug

- 13-17 Department Managers present second draft Operating and Capital budget to the Senior Management Team.

Sep

- 1 Department Managers submit third draft Operating Budget and Capital & Non-capital projects and initiatives. Finance and Managers meet to discuss the status of the current year CIP.

Oct

- 22 Budget is presented to the Board of Trustees.

Nov

- 12 Departments present Operating Budget and Capital & Non-Capital projects and initiatives to their respective Board Committee. The Full Board reviews the Five-Year Capital Improvement Plan.
- 26 Board considers adopting budget.

Board Committees' Department Review Responsibility

Administration and Finance – Executive Office, Customer Services, Information Services, Financial Services and Employees Services.

Operations – Water Services and Wastewater Services

Planning – Environmental Services and Engineering Services

Wastewater Communities: The proposed Wastewater Assessment to each municipality is presented and reviewed with each municipality at meetings scheduled between October 23 and November 23. By January 15, 2019, the District notifies each municipality of their certified assessment amount.

Mission Statement

The District's mission is to protect public health, safety, and the environment by providing our customers with reliable and affordable water, wastewater and related services. In order to fulfill the mission, the following six strategic goals have been established.

Goal 1 - Public Health:

The District will provide products and services that meet all federal, state and local quality standards.

Goal 2 - Public Safety:

The District will design and maintain its water system to meet modern firefighting needs.

Goal 3 - Environment:

The District will promote the sustainability of natural resources within Casco Bay watershed.

Goal 4 - Reliability:

The District can be trusted to provide its products and services in a manner that meets all reasonable customer expectations.

Goal 5 - Affordability:

The District will balance the delivery of products and services with customers' ability to pay water and wastewater rates and charges.

Goal 6 - Employees and Work Environment:

The District will have well trained and satisfied employees who will work in a safe and work environment conducive to productive work.

Strategic benchmarks have been created to indicate the District's performance over the long-term. The impact of variations in benchmarks performance is best understood looking at the long-term trend. Additional background explanations of the strategic goals and benchmarks with the impact to the budget are provided on the next six pages.

Annual objectives and tactical benchmarks are established to guide and monitor annual performance towards meeting our strategic goals - see individual departments' objectives and benchmarks in the Operating Expenses section.

Strategic Goals

Strategic Goal 1: Public Health

The District will provide products and services that meet all federal, state and local quality standards.

Background

The District's water operations are governed at the federal level by the Safe Drinking Water Act (SDWA). Ensuring compliance with the SDWA requires short- and long-term initiatives aimed at protecting, monitoring, and treating for water quality from the source to the tap. Protecting the source begins with protecting the watershed, and protecting the watershed begins with protecting the forest's natural ability to produce clean water. Therefore, the District's approach to protecting public health includes programs aimed at promoting forest conservation, monitoring and inspecting development in the watershed, monitoring the water quality of the lake and its tributaries, providing security of the area around the intakes, and performing education/outreach to keep the public involved in the process.

Strategic Benchmarks (updated periodically):

The District is in compliance with all regulatory standards. Two key measures are the quality of the source water in Sebago Lake and the ability to maintain an adequate level of disinfectant throughout the distribution system. The state of the lake is indicated by the Trophic State Index - an index that tracks water clarity along with the amounts of phosphorus and algae in the water. The current trophic state for Sebago Lake is good for drinking water quality. Chloramines are added to maintain a level of disinfectant throughout the distribution system. The level of chloramines is measured weekly at forty-three locations throughout the service area, and the treatment process is adjusted continuously to maintain desired levels.

Benchmarks:	1998	2003	2008	2013
Percent of Days in Compliance with Water Regulations	100%	100%	100%	100%
Water Quality: Sebago Lake Trophic State Index (goal – 24 to 32)	31	27	30	32
10th Percentile Chloramine Residual (goal 0.4 mg/L)	N/A	N/A	0.2 mg/L	0.3 mg/L
Land in Conservation in the Watershed (acres)	N/A	0	350	1100
Service Area Communities served by Education/Outreach Programs	N/A	N/A	10	11
Security (violations per 1000 visitors)	N/A	N/A	12	7

Current Status, Challenges and Impact to Current Budget:

A new water storage tank station in the 407 zone (Windham and Gorham) will be constructed in 2019.

Continue to allocate money (\$39,000) to work with watershed partners to prevent non-point pollution into Sebago Lake. A water monitoring buoy was purchased in 2018 and will be operational for the full year in 2019 and providing real time information on the lake water quality.

Strategic Goal 2: Safety

The District will design and maintain its water system to meet modern firefighting needs.

Background

One of the original reasons the District was created was to provide adequate water volume and pressure to combat fires.

A common benchmark measuring the fire-fighting capability is the community's public protection classification, a numerical grade given by the Insurance Service Office (ISO). The classification is developed based on grades given the community's fire department (60%) and water supply (40%) systems. The District is mainly responsible for the water supply system within our service territory. The classification is developed by the ISO, an international firm that provides information regarding property and liability risk.

Strategic Benchmarks (periodically by ISO):

The 2003 Comprehensive Water System Strategic Plan identified infrastructure and operational changes that would improve the water system rating within our service territory. The date indicates the last time the rating has been updated by ISO.

Benchmarks:

Stable or Improving Communities' ISO rating for Water Systems - Communities Improve/Stable Rating

Municipality	Percent of Municipality Served by the District	Water System (maximum = 40%)	ISO Rating Date
Cape Elizabeth	78%	36.54%	1995
Cumberland	43%	22.89%	2001
Falmouth	50%	32.93%	1992
Gorham	32%	34.20%	1993
Portland	94%	37.48%	2000
Raymond	3%	27.28%	2002
Scarborough	40%	32.46%	1991
South Portland	90%	37.35%	1999
Standish	13%	25.25%	1996
Westbrook	79%	36.84%	1996
Windham	37%	25.73%	2004

Current Status, Challenges and Impact to Current Budget:

The Capital Improvement Plan includes funding to replace water mains and hydrants, including \$6.1 million to continue upgrading the 407 zone, an area in Gorham and Windham, over the next 5 years. Additionally, staff will continue meeting with the municipal fire departments to identify action steps to improve. Annual inspection of all hydrants will be done and any inoperable hydrants will be fixed promptly.

Strategic Goal 3: Environment

The District will promote the sustainability of natural resources within the Casco Bay watershed.

Background

The District treats and returns to Casco Bay watershed 23 million gallons of wastewater each day. The discharged wastewater must meet certain wastewater regulations. Wastewater regulations fall under the provisions of the federal Clean Water Act (CWA). Passed in 1972, with significant amendments in 1977 when it became known as the CWA, it is implemented and enforced by the EPA and the Army Corp. of Engineers. The CWA establishes the basic structure for regulating pollutants discharging into the waters of the United States. It gives the EPA authority to implement pollution control programs, such as setting wastewater standards for industry. The CWA makes it unlawful to discharge a pollutant into navigable waters without a permit called the National Pollutant Discharge Elimination System Permit (NPDES)).

The CWA provides that the EPA will create rules to implement the law, and will delegate to the state the administration and enforcement of the law on a day-to-day basis. In Maine, the Department of Environmental Protection (DEP) has been delegated this function, with EPA retaining concurrent authority to take enforcement action. The DEP has more stringent monitoring requirements for biosolids, whole effluent toxicity and mercury than the requirements established by EPA. The District's treatment plants must obtain a discharge permit issued by the DEP adhering to those stricter requirements.

Strategic Benchmarks (updated every 5 years):

The District meets the standards required by each plant DEP-issued wastewater discharge permit. The standards include numerous daily, weekly and monthly benchmarks. In addition, the elimination of any discharges of untreated wastewater during dry weather (i.e. – no rain or snow melt) to watershed is a goal.

	2003	2008	2013
<u>Compliance with discharge permit:</u>			
East End Wastewater Treatment Facility	49	22	5
Westbrook / Gorham / Windham Treatment Facility	8	8	0
South Cape Elizabeth Treatment Facility	10	13	2
Peak's Island (in Portland) Treatment Facility	0	3	0
Dry Weather Overflows	N/A	1	3

Current Status, Challenges and Impact to Current Budget:

Many of the non-compliance incidents occur during wet weather when the facilities cannot treat the volume of water resulting in untreated or less treated wastewater to be discharged to the watershed. In 2019, the focus in each system is as follows:

Cape Elizabeth – Assisting the town in identifying the source and solution for the overflow related to the Ottawa Road pump station.

Gorham/Westbrook/Windham – Assisting the city in eliminating combined sewer overflow in the city's collector system, including the completion of a \$2.2 million upgrade at the Dana Court pump station and installation of screens on Combined Sewer Overflow (CSO).

Portland - Assisting the city in eliminating combined sewer overflow in the city's collector system.

Strategic Goal 4: Reliability

The District can be trusted to provide its products and services in a manner that meets all reasonable customer expectations.

Background

The state has granted the District the exclusive authority to provide public drinking water service and wastewater treatment/interceptor service to customers in our service territory. Customers and regulators assume we will provide appropriate service 24/7. Water service standards are established by the Maine Public Utilities Commission and Department of Human Services; including standards related to customer service and billing. Wastewater service standards are established by the Maine Department of Environmental Protection.

Strategic Benchmarks (updated every 5 years):

The District periodically conducts a formal customer satisfaction survey. Customers expect us to provide two basic services reliably – to provide water to customers' homes and to treat wastewater delivered to District's system.

	2003	2008	2013
Water Service failure per million hours of available service - Total Customer Outage Hrs. / ((51,296 X 365 X 24) / 1,000,000)	15.8	15.7	9.4
Wastewater Reliability Index – WW Systems infrastructure that is In Service Full (ability to deliver design flow)			
WW Systems and Pumping Stations convey flow to treatment plants	Not available	98.6%	99.6%
WW Treatment Plants available to treat flow	Not available	100%	100%
Customer Satisfaction Survey Results	89%	85%	87%

Current Status, Challenges and Impact to Current Budget:

The 2017 customer satisfaction survey was completed and indicates satisfaction continues to be high with 75% of customers indicating they are satisfied or generally pleased with the level, quality and reliability of the water and wastewater services provided. We will continue investing in our 'value of water' campaign and explore offering additional self-help options including advance notification of certain events.

In 2019, the most significant water system project to increase reliability is the \$8.8 million investment in aging water mains, which will reduce main failures. Significant wastewater system projects/programs that will increase reliability include the renovating aging pump stations and continue implementation of monitoring devices throughout the system to allow the remote monitoring of facilities and prompt response to system problems.

Strategic Goal 5: Affordability

The District will balance the delivery of products and services with customers' ability to pay water and wastewater rates and charges.

Background

An industry affordability benchmark is to compare the typical household bill as a percent of median household income. The national standard is the utility bill is considered affordable if the annual bill is less than 2% of median income. The District water rates are well below the affordability standard with the typical household paying only 0.46% of median income. The Board established target is not to increase water rates greater than the rate of inflation. Since 1998, water rates are significantly below that target.

The Board's policy is to increase assessment to municipalities for wastewater service at or below the rate of inflation. Costs related to municipal requests for additional/expanded service and federal unfunded regulations may result in a higher assessment.

	1998	2003	2008	2013	
Water Rates for a Typical 3-person household as a percent of Median Income	0.52%	0.42%	0.41%	0.46%	
Water Revenue per Typical Customer Actual Inflation Adjusted	\$ 228.12	\$ 210.72 \$275.16	\$ 221.64 \$309.67	\$ 254.16 \$336.05	
Wastewater Assessments:					<u>2013 vs 1998</u>
Cape Elizabeth	\$ 944,000	\$ 863,052	\$ 1,049,052	\$ 1,365,084	45%
Cumberland	\$ 315,800	\$ 498,144	\$ 764,236	\$ 713,940	126%
Gorham	\$ 428,200	\$ 490,608	\$ 924,732	\$ 1,084,464	153%
Portland	\$ 6,972,900	\$ 8,753,220	\$ 9,951,852	\$ 10,540,044	51%
Westbrook	\$ 1,588,300	\$ 1,599,100	\$ 1,800,540	\$ 2,533,176	59%
Windham	\$ 46,000	\$ 45,996	\$ 214,320	\$ 351,756	665%

Current Status, Challenges and Impact to Current Budget:

Water rates are assumed to increase by 4.4% effective May 1, 2019. Since 1998, water rates are below the long-term inflation rate. The proposed increase is consistent with the Board of Trustees' direction to have small incremental water rate increases annually. Increases are needed to meet the increasing capital costs to replace aging water mains, funding a new capital reserve fund contribution and funding an adequate contingency fund.

Wastewater assessments increased on average by 2.3% with all assessments at or below 3%.

Wastewater assessments have increased near or slightly above the rate of inflation (51%) since 1998 except in Cumberland, Gorham and Windham. Gorham's and Windham's higher increase reflects their request to expand the sewer system by connecting the Little Falls area to the Westbrook Regional Treatment Facility. Cumberland's increase is attributed to a higher assessment from the town of Falmouth. The District's share of the assessment has increased 58%. To mitigate the upward pressure on assessments, the wastewater services area has reorganized its staff and continues to review processes and procedures to become more efficient.

Strategic Goal 6: Employees and Work Environment

The District will have well trained and satisfied employees who work in a safe and productive work environment.

Background

Since 1995, a periodic survey of all employees is conducted. The survey provides employee feedback on the work environment including questions related to compensation, management and policies.

The premium paid on workers' compensation is partially based on a modification factor (MOD). The factor compares the District's injury rate with other organizations with similar risk exposure. The District seeks workers' compensation injury rate that is no higher than industry average (i.e. – a rating of 1 or less).

Finding time for training is an important goal. The goal that has been established is an average of 80 training hours per employee.

Strategic Benchmarks (updated every 5 years):

	1998	2003	2008	2013
District's biennial Employee Satisfaction Average Score - Range 1 (lowest) to 6 (highest)	3.52	4.02	4.42	4.48
Workers' Compensation Modification Factor – 1.00 = Industry average (goal is less than 1)	1.62	0.99	1.06	1.06
Average Training Hours Per Employee – current goal is 80 hours	22	55	83	105

Current Status, Challenges and Impact to Current Budget:

In 2017, an employee satisfaction survey was conducted. Based on the survey results, three areas of focus are: inconsistent application of policies, compensation, and improved internal communication. As surveys have traditionally been conducted every other year, another employee survey will be done late 2019/early 2020.

The current workers' compensation modification factor indicates that our injury rate is below average for our industry (last 10 years' average is 0.98; 2019 factor decreased to 0.95). We will continue our efforts to maintaining a rate below 1, which indicates an organization is average.

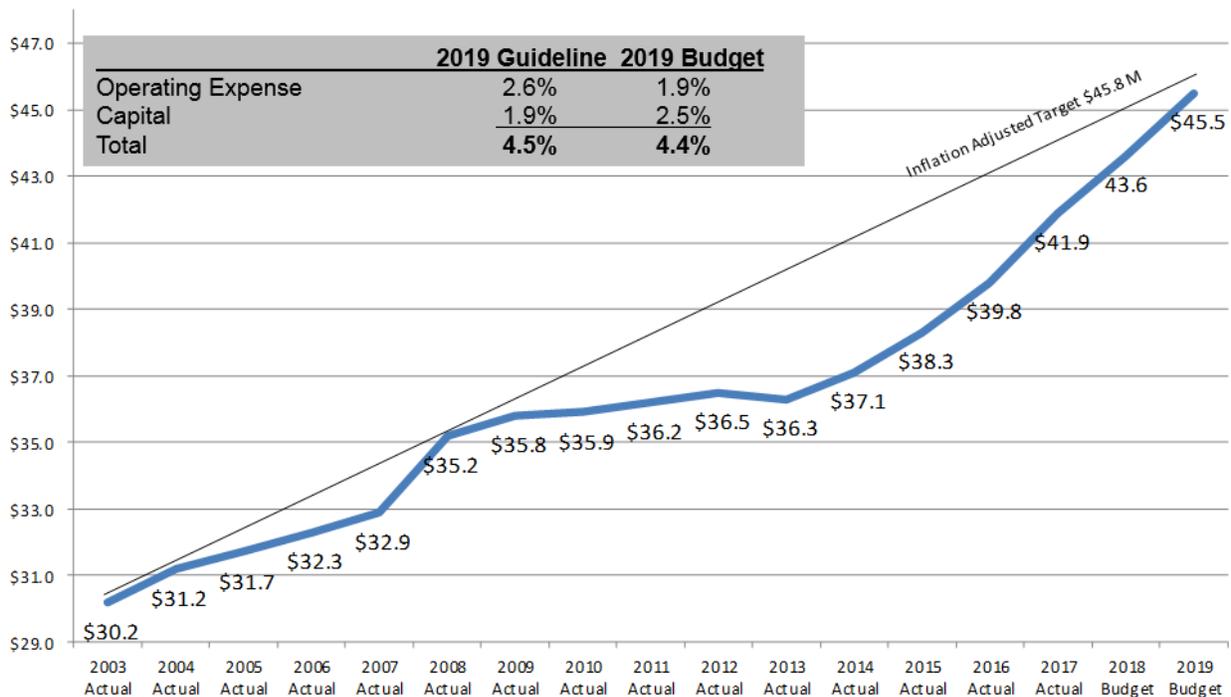
Management development and consistency of practice efforts continue through our commitment of an average of 80 hours of training per employee. The water and wastewater department continue an apprentice program to provide a broad education to our new employees.

Board Established Annual Budget Guidelines

To help guide staff, the Board of Trustees set four guidelines for the budget process.

<u>Guideline</u>	The Operating Funds' Budget will not increase more than the rate of inflation over the long-term. The annual target is rate of inflation plus any unfunded federal/state/local mandates and funding for water main renewal of up to 1% of water revenues. At their May meeting, the Board established a budget target of \$45.6M would be \$0.2M less than the budget if it increased at the rate of inflation over the long-term.
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The Guideline is established to limit growth of the budget to a reasonable growth level not exceeding the inflation rate. The limit can be exceeded if a municipality requests expansion of service or service level. **Proposed budget is \$45.5 million, \$0.1 million better than Board guideline.**



<u>Guideline</u>	Capital expenditures will be consistent with the levels recommended in the Water and Wastewater system plans.
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A guideline was established to ensure capital projects are consistent with various plans including the Water Master Plan, Comprehensive Plant and System plans, and Combined Sewer Overflow plans. **The proposed capital expenditures meet the guidelines – see Infrastructure and Operational Evaluation Plans in the Capital Expenditures section for details.**

Board Established Annual Budget Guidelines (continued)

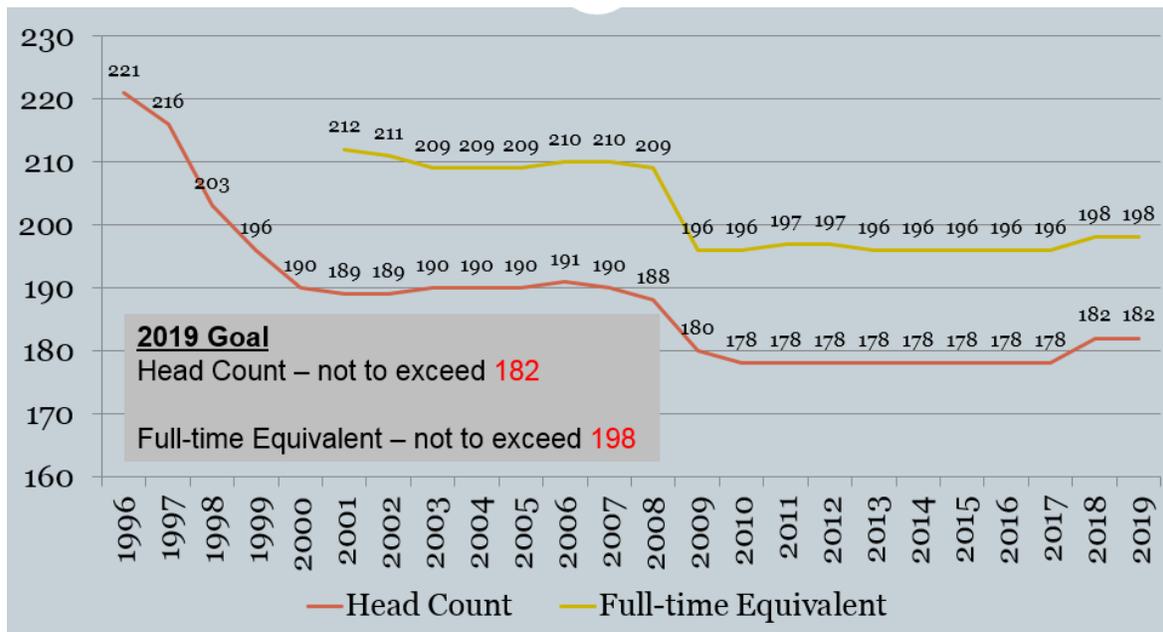
<u>Guideline</u>	Water Revenue Requirement and Wastewater Assessments increases will not exceed the rate of inflation excluding the impact of mutually agreed upon changes in services, capital investments, surplus fund utilization or Board’s request to increase surplus balance.
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All Wastewater assessments and Water Rates Increases meet or are below the Board of Trustees and Municipal expectations.

	2019 Target		2019 Proposed Budget	
Water	\$24,951,533	5.5%	\$24,817,595	4.9%
Cape Elizabeth	\$1,632,230	6.0%	\$1,572,912	2.1%
Cumberland	\$932,525	3.0%	\$905,364	0.0%
Gorham	\$1,133,802	2.5%	\$1,133,436	2.5%
Portland	\$12,677,119	3.5%	\$12,616,080	3.0%
Westbrook	\$2,735,830	8.0%	\$2,539,800	0.3%
Windham	\$371,344	3.0%	\$366,768	1.7%

<u>Guideline</u>	The number of employees will not exceed 182 and the full-time equivalency (FTE) will not exceed 198.
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Salary and benefits are one of the District’s most significant costs. To control costs, a targeted headcount is established. **The proposed budget contains 182 employees and 198 full-time equivalent employees – meeting the Goal.**



Employees Suggested Action Items

During the planning stages of the budget development, the General Manager held forums giving all employees an opportunity to share suggestions to be included in the 2018 budget. Many good suggestions were received. Each item was identified either to be immediately implemented, incorporated into 2018 action plans/budget, further studied for future consideration or declined. The table below identifies some of the significant items included in the 2018 work plan with the status of the item in red.

Employee Suggestion	Department	2018 Budget Impact:
<u>Public Health/Safety</u>		
Purchase additional data logger	Water	Purchased in 2017, maintenance contract has minimal financial impact included in budget. Completed.
Purchase trailer to haul mini-excavator	Water	Purchased in 2017, maintenance contract has minimal financial impact included in budget. Completed.
Upgrade locators equipment	Water	Incorporated in 2018 budget, \$ 5,000. Completed.
Hire an additional Utility Specialist	Water	Incorporated in 2018 budget, \$ 87,000. Completed.
Ensure samples arrive at lab within required temperature range	Wastewater	Process changed in 2017, with no impact to 2018 budget. Completed.
Improve management of Wastewater system alarms	Wastewater	Transfer alarm monitoring to WW staff, no 2018 budget impact – Not completed due to staffing turnover.
Purchase garmin-type device for direction to facilities	Wastewater	Purchased in 2017, maintenance contract has minimal financial impact included in budget. Completed.
Review winter plowing protocol to ensure area is properly plowed	Engineering Services (Facilities)	Review for winter 2017-18. Minimal financial impact included in budget. Completed.
Increase Service Associated Assets Committee efforts	Engineering Services	New Asset Management Technician included in the 2018 Budget. Completed.
<u>Environment</u>		
Purchase more colorful rain barrels	Environmental Services	Review in 2018, no 2018 budget impact. Not feasible.
Reduce the use of paper by moving Customer Service review process on-line	Administration	Began implementing in 2017. Estimated savings of \$800 included in the 2018 budget. Complete by November 1.

Employees Suggested Action Items (continued)

EE Suggestion	Department	2018 Budget Impact:
<i>Reliability</i>		
Purchase excavator	Water	Purchased in 2017, maintenance contract & operating financial impact included in budget. Completed.
Replace two small dump trucks with one larger dump truck	Water	Incorporated in 2018 CIP budget, \$ 130,000. Completed.
Vehicles should be 4 wheel drive	Wastewater	Review with new purchases starting in 2018, Cost incorporated in the 2018 budget. Completed.
Improve Large Meter Testing Program	Water	Began work in 2017, continue in 2018. The budget includes \$30,000 for testing. Completed. Full roll-out of program in 2019.
Wastewater maintenance staffing review and increase field computer access	Wastewater	Budget incorporates the creation of Maintenance Manager to review, position created from empty position. Manager hired.
Repower the patrol boat	Environmental Services	Complete in 2017, no impact to the 2018 budget. Completed.
Upgrade intake structures, transmission valves building, Steep Fall facility & Windham Tank	Engineering Services	2018 and future years capital budget incorporate these upgrades Completed -in 5 year CIP
<i>Affordability</i>		
Install dumpster at Cape Elizabeth treatment plant for screening material	Wastewater	Installed in 2017, minimal costs incorporated in the 2018 budget. Completed.
Partner with other entities to expand education program	Environmental Services	One partner found and additional sought, financial impact in the 2018 budget. Completed.
Consider going unattended for security Douglass Street facility	Engineering Services (Facilities)	Will review in 2018 and impact will be done within resources requested in the 2018 budget. Review completed. Decision to be made in 4th quarter 2018.
Improve energy efficiency at Douglass Street facility	Engineering Services	An updated study will be completed in 2018.
<i>Employees and Work Environment</i>		
Replace aging gas detectors	Water	Will be piloted in 2018, budget impact - \$3,000. Completed.
Improve HVAC system at Cape Elizabeth Treatment Plant and Douglass Street	Wastewater/ Administration	Incorporated in 2018 budget. Cape project underway. Douglass Street upgraded planned for upcoming years.
Purchase additional manhole cover openers	Wastewater	Incorporated in 2018 budget. Completed.
Redo carpet, paint and reorient projector in training room	Environmental Services	Began in 2017 and completed in 2018. Impact will be done within resources requested in the 2018 budget. Completed.
Dual computer monitors for certain positions	Administration	Pilot began in 2017. Additional dollars will be done within the proposed 2018 budget. Completed.
Increase dollars available for overtime pay	Administration	Additional allocation included in 2018 budget for ABC project. Completed.
Offer cell phone stipends to employees with PWD and personal cell phone	All	Program to be implemented effective January 1 st and any financial impact will be within the proposed 2018 budget. Completed.

External Factors Impacting the Budget

Economy

The local economy has rebounded from the last national recession. State unemployment is 3.2% and has been under 4% for 35 months in a row. The unemployment rate is better than the national unemployment rate of 3.9%. Cumberland County's unemployment rate is 2.7%, which is the same as last year.

Greater Portland's real estate market continues to thrive with total number of home sales are up by 4% and home prices are up 6%. In the 2019 budget, the water consumption projection includes the same number of households as of August 30, 2018 and assumes no customer growth. A typical year's growth in new customers is 1.5% (750 accounts).

The sluggish national economic recovery continues to keep interest rates relatively lower than historical levels affecting interest earning on investments and interest expense on debt. However, both investment and bond rates have risen in the past year. The 2019 budget includes a \$209,997, or 70%, increase in earnings from operating funds investments as the average rates increase to 1.5% from 0.99%.

The strong equity market returns caused the annual pension costs to decrease. The 2019 estimated actuarially determined contribution to our pension plans is approximately \$1.1 million, which is \$300,000 lower than the prior year.

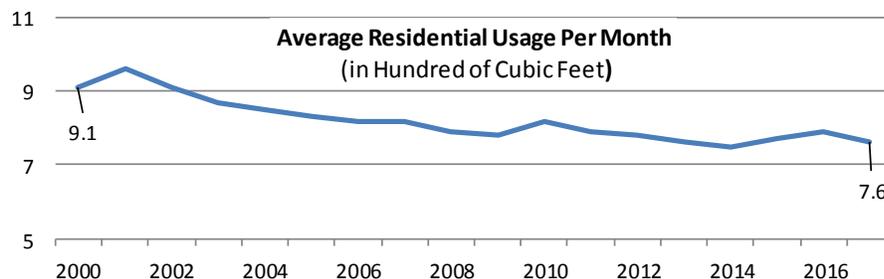
The chemical, metal and fuel commodity market prices are impacted by the economy's health and have been volatile in the past couple of years. Approximately 10% of the District's expenses are related to chemical, metal and fuel markets. The 2019 budget reflects the commodity prices available in mid-2018.

Regulatory Mandates

The water and wastewater industry must comply with various federal and state regulations with two of the most important regulations being the Safe Drinking Water Act (SDWA) and Clean Water Act (CWA). The current regulatory focus is compliance with the long-term surface water disinfection rule under the SDWA and the combined sewer overflow requirements under the CWA. The 2019 Budget includes the impact of debt service of \$13.5 million in capital expenditures and approximately \$200,000 in operating expenses addressing these two focus areas.

Water Consumption

Though the District has ample supply of water, consumers have reduced their water consumption. Since 2000, the average residential household usage (HCF) has declined by more than 16%. Some of the reasons are rising wastewater fees encouraging conservation and the availability of more water efficient household appliances.



Significant Budget Uncertainties

During the budget development, certain assumptions are made. Several budget areas have significant uncertainties including the following:

Salaries and Wages (\$11.5 million or 26% of total budget). The latest three-year union contract expires at the end of October 2018. For 2019 budget purposes, union wage rates were assumed to increase by 3.0% effective November 1, 2018. Non-union pay rates were assumed to increase by 3.0% effective January 1, 2019.

In addition, the budget assumes 16,600 hours of overtime and doubletime pay. The amount of overtime and doubletime is directly related to amount of emergency repair work that is needed. Additional hours were included in the budget to assist in the implementation of the new Asset, Billing and Customer Relations computer system, though the actual hours needed are unknown. For every additional 1,000 hours of overtime/doubletime pay, costs increase by approximately \$40,000.

Purchased Power (\$1.8 million or 3.8% of total budget). Electricity costs consist of delivery charges purchased from Central Maine Power (\$700,373) and energy costs purchased from Constellation Energy (\$1,051,059). Typically, CMP implements a rate adjustment effective July 1st. The amount of the 2019 increase is unknown. The 2019 budget assumes a 3% increase. For every variance of 1%, the budget would be impacted by approximately \$8,000. Energy contracts lock in the prices for virtually the whole year.

The actual amount of electricity used varies primarily based on weather conditions, which impacts the amount of water produced and wastewater processed. Since 2007, the variance between the highest and lowest kilowatt amount of electricity for individual accounts in total is 11%, which would impact the budget by approximately \$200,000.

Chemicals (\$1.1 million or 2.5% of total budget). The chemical contract is put out to bid each December. Prices used for the budget are estimates using the June market prices. Chemical prices have been volatile and have reacted to the global/national economy.

Biosolids Disposal (\$1.7 million or 3.7% of total budget). The volume of material left at the end of the wastewater process can vary significantly based on weather and operational challenges. A key measurement is the percent of solids left after removing as much water as possible from the material. The 2019 budget assumes 21%. In the past 5 years, the average has varied from 18% to 22%. A 1% difference is approximately \$84,000.

Weather The weather is a noteworthy determinant of operating expenses. The timing and duration of below freezing weather impacts the number of water main and service leaks. The amount of snowfall and timing of snow melt and rainfall impacts the amount of storm water that must be pumped to and treated by wastewater plants. The duration of hot summer days impacts the amount of water produced by the water treatment facility. For the 2019 budget, the past three-year average of water produced and wastewater treated was assumed for operating expenses projections.

Major Policy and Resource Allocation Decisions

Operating Budget

Personnel. One new position is proposed – Wastewater Associate Engineer. The position will assist the department in managing their smaller capital projects. An Environmental Scientist position was eliminated. The reduction is the result of less regulatory required work in the lab.

Two positions were modified. Engineering Services upgraded the Asset Analyst position to Management Program Manager, reflecting the need for a higher level of support for the asset management system. Wastewater Services changed a Wastewater Maintenance Operator position to System Maintenance/Operator, reflecting the need to expand the responsibility to include operating and maintenance functions.

Overall, the 2019 budget continues our emphasis on training employees with the continued goal of providing an average of 80 hours training.

The District is implementing a new Asset, Billing and Customer Relations system. Eight employees are dedicated towards implementing the system.

Employee Benefits The costliest employee benefits are health insurance and pension benefits. Health insurance premiums increased by 3.0%. The increase is partially offset by the employees' health insurance co-pay percent increase to 9.0% from 8.0%. The net cost of health insurance to the District is expected to be relatively flat between 2019 and 2018 budget. The defined benefit plan contributions in the 2019 Budget decreased \$1.1 million, a \$300,000 decrease, primarily due to strong investment returns. The contribution is consistent with the Board adopted long-term funding policy as estimated by the District's actuary.

Wastewater Sewer Lines Inspection In 2008, a commitment was made to inspect all sewer lines at least once every 10 years. In 2019, \$65,000 was allocated to meet that commitment.

Wastewater Combined Sewer Overflow (CSO) Monitoring To assist the municipalities in meeting their federal CSO requirements, the District remotely monitors the flow. In 2019, \$156,000 was allocated to meet their request.

Water System Flushing Starting in 2012, a renewed effort was made to flush the whole distribution system over a 3-year cycle. Flushing the system improves the water quality in the distribution system. The 2019 budget continues this effort by allocating close to \$89,000.

Partnership for Safe Water Starting in 2016, staff allocates approximately 1,000 hours participating in the water distribution system benchmarking program through the Partnership for Safe Water.

Renewal and Replacement The annual commitment of current revenue committed to capital projects increased to over \$5M which is an increase of \$270,000 over last year's budget.

Major Policy and Resource Allocation Decisions (continued)

Cross connections between water supplies and sources of contamination represent one of the most significant threats to public health in the water supply industry. Previously, commercial customers have been required to install backflow prevention devices. Effective January 1, 2019, the requirement to install backflow devices will be extended to the following situation:

- New residential construction,
- Substantial renovations of building and internal plumbing systems, and
- Fire sprinkler systems that are being upgraded.

Informational bill stuffer sent to all customers:

EFFECTIVE JANUARY 1, 2019



Important Update!

Cross Connection Control Program

The Portland Water District is making important updates to its Cross Connection Control Program to further protect the public water supply from a potential contamination.

This policy update only applies to new construction and substantial renovation.

Who does this impact?

Effective January 1, 2019, the updated Cross Connection Control Program extends the requirement of backflow prevention devices to:

1. New residential construction
2. Substantial renovations of buildings and internal plumbing systems
3. Fire sprinkler systems that are being upgraded

All commercial properties are still required to install and test backflow prevention devices.

For more information on the changes and requirements, please visit us online at www.pwd.org/Cross-connections

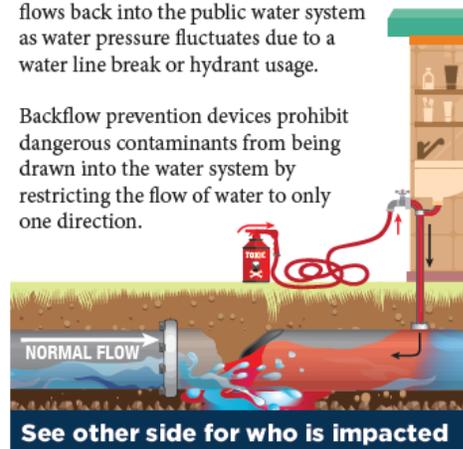
What is a cross connection?

A cross connection is a physical connection between the drinking water system and any other piping system containing a non-potable substance. An example of a potential cross connection is a garden hose attached to an outside spigot with the end of the hose submerged in a pool or connected to a container holding a toxic chemical.

When do backflows occur?

A backflow can occur when a substance flows back into the public water system as water pressure fluctuates due to a water line break or hydrant usage.

Backflow prevention devices prohibit dangerous contaminants from being drawn into the water system by restricting the flow of water to only one direction.



See other side for who is impacted



Portland Water District
FROM SEBAGO LAKE TO CASCO BAY

Portland Water District / 225 Douglass Street
PO Box 3553 / Portland, ME 04104-3553
pwd.org / (207) 761-8310

Major Policy and Resource Allocation Decisions (continued)

Capital Projects

The 2003 water strategic master plan noted that a considerable amount of water mains will be reaching the end of their useful life in the next 20 years. In 2019, the amount dedicated to replace aging water mains will be \$8.8 million; \$1.8 million more than last year. The additional amount is needed to replace several significant mains that being replaced due to the municipalities' combined sewer overflow projects. Water Services and Engineering Services staff will allocate significant resources to manage these projects. Water Services has included additional money to outsource tasks to the private sector, enabling staff to allocate additional time for water main inspection.

Significant capital projects include the following:

- Water Main Renewals: Replacing aging water mains continues to be a major focus of the District and includes \$8,800,000 investment in 2019.
- Windham/Gorham 407 Zone upgrade: The 2003 water master plan noted that, within the next 20 years, water demand growth in Windham and Gorham will exceed the current capacity. Since 2003, incremental improvements have been made to address the future shortfall. Preliminary engineering on a new Ward's Hill water tank construction is scheduled for 2019 (\$2.5 million).
- Westbrook Regional Wastewater Treatment Plant: In 2019, planning will begin on the \$10.5 million aeration project.
- Portland's East End Wastewater Treatment Plant: Significant upgrades to the heating, boiler and primary clarifier are planned (\$1.6 million).

Revenues

To balance the desire to provide funding for infrastructure improvement and operational needs with keeping water rates affordable, the Board adopted a policy of small modest annual increases close to the rate of inflation. The 2019 budget assumes a 4.4% increase in rates.

The 4.4% increase includes allocating 1.0% to the Capital Reserve fund. The Maine Public Utilities Commission adopted a rule in 2013 allowing the District to increase water rates up to 10% of water revenues and dedicate revenues for capital improvement. After the proposed increase, the percent of water revenue allocated to the Capital Reserve annually will be 6%. The proposed budget assumes the additional reserve will be used to pay the debt service of \$2 million bond to finance replacing aging water mains.

2019 Operating Budget Summary

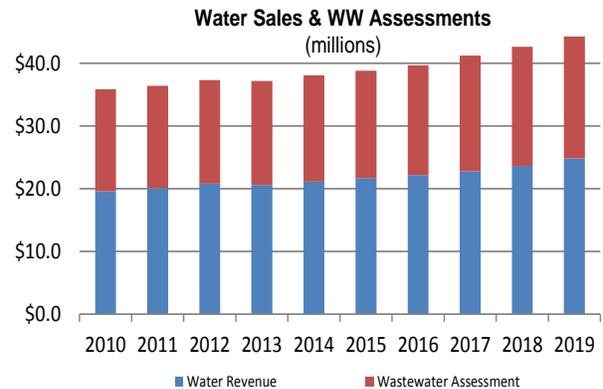
The proposed budget includes \$45.54 million in revenues and expenses.

Revenues

The two major revenue sources are water sales (\$24.8 million or 54.5% of total revenue) and wastewater assessment revenues (\$19.45 million or 42.7% of total revenue). Wastewater revenues have increased from \$16.29 million (19.4%) since 2010 principally due to addressing capital needs requested by municipalities or aging infrastructure.

Water revenues are generated from potable water and sprinkler charges to individual customers, and public fire protection charges to municipalities. The 2019 Budget assumes an increase of 4.4% over current rates effective May 1, 2019.

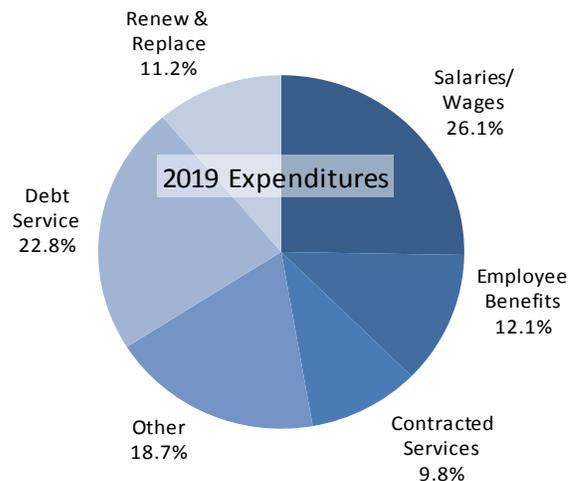
Wastewater assessments are the amounts billed individual municipalities to provide collection, sewer treatment, interception, utility billing services and, by request, collection and billing services. Assessments in 2019 increased 2.3% overall (\$444,936)



Expenses

Departmental Expenses increased to \$45.5 million, an increase of 4.4%.

Personnel Costs, (Salaries/Wages and Employee Benefits) which are 38.2 % of the total budget, increased 2.1% due to the average labor rate increase of 3.0% offset by lower pension expenses. Debt Service (22.8% of expense) increased 8.5% due to new debt issues. Contracted Services increased 5.1% (\$219,048) due to new Cayenta software maintenance contract. Renewal and Replace contributions increased \$269,898 (5.6%) while Other Expense increased \$250,694 (3.0%).

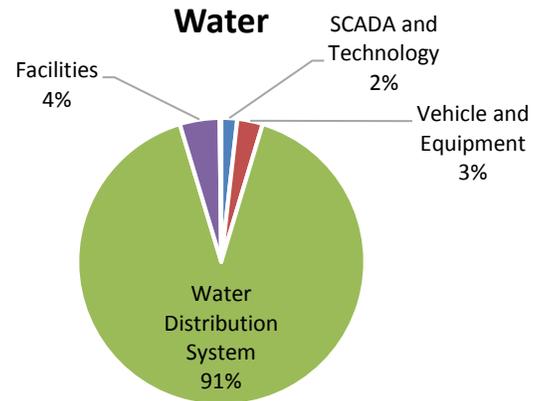


2019 Capital Budget Summary

The proposed Capital Budget is \$23.27 million with projects for the water and wastewater funds of \$13.97 and \$9.3 million, respectively.

Water

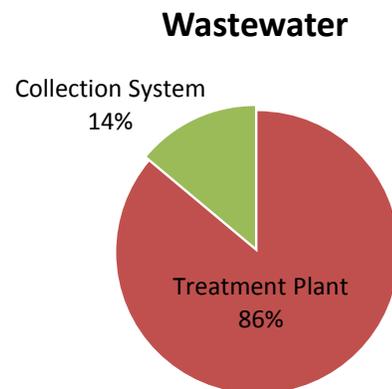
Of the \$13.97 million in water capital projects, the largest component (91%) involves the renewal of water distribution assets such as mains, services, meters and hydrants. The other categories include water facilities and security (4%), vehicles and equipment (3%), technology and SCADA (2%) and water supply (<1%). The implementation of a \$4.6 million Asset, Billing and Customer Relations software system continues to be a significant technology project in 2019.



The projects will be funded by issuing \$10 million in bonds and utilizing \$3.97 million in drawdowns from renewal and replacement funds.

Wastewater

The largest project included in the \$9.3 million wastewater capital plan is the \$3.9 million power upgrade at the East End WWTF. A total of \$1.5 million is planned for odor control and clarifier upgrades at the Westbrook WWTF. Other projects of note include upgrades to the Depot St. pump station in Windham and continued work on Portland CSO mitigation.



The projects will be funded by issuing \$7.6 million in bonds and by utilizing \$1.7 million in drawdowns from renewal and replacement funds.

2019 Combined Water and Wastewater Operating Funds

Total revenues are \$45.54 million, \$1.72 million or 3.9% higher than last year's budget. The Budget proposes a 4.4% water rate increase effective May 2019. Wastewater Assessments increases for the full year are budgeted in Cape Elizabeth (2.1%), Gorham (2.5%), Falmouth (1.3%) Portland (3.0%), Westbrook (0.3%) and Windham (1.7%).

Operating Expenses are \$45.54 million, an increase of 4.4%. The following pages provide additional detail.

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Beginning Fund Balance	\$10,892,393	\$11,270,569	\$11,889,442	\$11,984,793		
Water Sales	23,186,245	11,062,181	23,650,742	24,817,595	1,166,853	4.9%
Assessment Income	18,418,704	9,501,948	19,003,536	19,448,472	444,936	2.3%
Contracted Billing Income	203,364	104,220	208,440	212,388	3,948	1.9%
Interest Income	276,264	199,477	295,386	505,383	209,997	71.1%
Other Income	674,874	306,554	653,180	553,614	-99,566	-15.2%
<u>FEMA Reimbursement</u>	<u>37,930</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>n/a</u>
Total Revenue	42,797,381	21,174,380	43,811,284	45,537,452	1,726,168	3.9%
Salaries & Wages	10,423,549	5,372,368	11,072,089	11,507,789	435,700	3.9%
Employee Benefits	5,356,875	2,717,807	5,602,176	5,520,409	-81,767	-1.5%
Biosolids Disposal	1,862,526	956,013	1,504,698	1,674,962	170,264	11.3%
Chemicals	1,016,026	562,283	976,654	1,137,386	160,732	16.5%
Contracted Services	4,002,089	2,040,760	4,265,913	4,484,961	219,048	5.1%
Deferred Cost W/O	97,845	7,200	14,400	10,100	-4,300	-29.9%
Heat/Fuel Oil	323,429	214,062	313,193	331,981	18,788	6.0%
Insurance	202,351	93,627	212,657	196,845	-15,812	-7.4%
Materials & Supplies	1,616,527	757,682	1,661,287	1,764,434	103,147	6.2%
Other Expense	601,865	279,290	727,158	782,000	54,842	7.5%
Purchased Power	1,836,534	1,101,866	1,935,093	1,751,432	-183,661	-9.5%
Regulatory/Taxes	205,885	198,445	216,465	213,965	-2,500	-1.2%
Tele/Other Utilities	350,322	187,272	377,004	356,021	-20,983	-5.6%
Transportation	1,140,006	557,427	1,133,133	1,139,310	6,177	0.5%
<u>Trans Offset</u>	<u>-759,053</u>	<u>-401,857</u>	<u>-793,454</u>	<u>-829,454</u>	<u>-36,000</u>	<u>4.5%</u>
Department Expense	28,276,776	14,644,245	29,218,466	30,042,141	823,675	2.8%
Debt Service	8,742,833	4,720,048	9,577,782	10,392,178	814,396	8.5%
Renewal & Replacement - Direct	4,324,376	1,992,826	3,985,651	4,255,549	269,898	6.8%
<u>Renewal & Replace - Indirect</u>	<u>590,000</u>	<u>425,001</u>	<u>850,000</u>	<u>850,000</u>	<u>0</u>	<u>0.0%</u>
Operating Expense	41,933,985	21,782,120	43,631,899	45,539,868	1,907,969	4.4%
Current Surplus (Deficit)	863,396	-607,740	179,385	-2,416		
Transfer to R&R	-428,090	0	0	0		
Transfer to Capital Reserve	-114,213	-31,144	-62,288	-127,838		
Transfer to Land Fund	0	0	0	0		
Land Cash Reserve Expense	57,080	0	0	0		
Ending Fund Balance	11,270,566	10,631,685	12,006,539	11,854,539		
Operating Expense (above)	41,933,985	21,782,120	43,631,899	45,539,868		
<u>Capital Expenditures</u>	<u>23,601,696</u>	<u>6,889,590</u>	<u>18,720,500</u>	<u>19,310,000</u>		
Total Expenditures	65,535,681	28,671,710	62,352,399	64,849,868		

2019 Combined Operating, Capital and Grant Funds

The total combined revenue and funding for 2019 is \$68.8 million, total combined expenditures are \$68.8 million. The budgeted deficit for 2019 is -\$2,426.

Operating fund details are included in Operating Revenues, Departmental Expense and Human Resources Sections. Capital funds details are included in the Capital Finance and Capital Expenditures Sections. The Budget by Fund Section provides a summary of the Operating and Capital budget by individual enterprise fund – water fund and six (6) wastewater funds for each community provided with wastewater service.

	Operating	Capital	Total
Water Sales	\$24,817,585	\$0	\$24,817,585
Assessment Income	19,448,472	-	19,448,472
Water Bond	-	10,000,000	10,000,000
Water R&R	-	3,975,000	3,975,000
Wastewater Bond	-	7,600,000	7,600,000
Wastewater R&R	-	1,700,000	1,700,000
Contracted Billing Income	212,388	-	212,388
Interest Income	505,383	-	505,383
Other Income	553,614	-	553,614
Total Revenue	45,537,442	23,275,000	68,812,442
Salaries & Wages	11,507,789	391,789	11,899,578
Employee Benefits	5,520,409	168,922	5,689,331
Biosolids Disposal	1,674,962	-	1,674,962
Chemicals	1,137,386	-	1,137,386
Contracted Services	4,484,961	22,109,447	26,594,408
Deferred Cost W/O	10,100	-	10,100
Heat/Fuel Oil	331,981	-	331,981
Insurance	196,845	-	196,845
Materials & Supplies	1,764,434	505,571	2,270,005
Other Expense	782,000	-	782,000
Purchased Power	1,751,432	-	1,751,432
Regulatory/Taxes	213,965	-	213,965
Tele/Other Utilities	356,021	-	356,021
Transportation	1,139,310	99,271	1,238,581
Trans Offset	(829,454)	-	(829,454)
Operating Expense	30,042,141	23,275,000	53,317,141
Debt Service	10,392,178	-	10,392,178
Renewal & Replacement - Direct	4,255,549	-	4,255,549
Renewal & Replace - Indirect	850,000	-	850,000
Total Expense	45,539,868	23,275,000	68,814,868
Surplus (Deficit)	(2,426)	-	(2,426)

2019 to 2023- Financial Plan

A long-term financial plan is developed incorporating estimated cost adjustments to operating expense line items and impact of projects in the capital improvement plan. A summary of the operating and capital budget plans are provided below. An income statement for each fund is provided in the Budget by Fund section.

Consolidated Operating Budget:

	2016 Actual	2017 Actual	2018 Budget	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Revenues:								
Water Sales	\$ 23,301,888	\$ 23,186,245	\$ 23,650,742	\$ 24,817,595	\$ 26,169,676	\$ 27,832,956	\$ 29,036,589	\$ 30,284,889
Assessment Income	\$ 17,529,312	\$ 18,418,704	\$ 19,003,536	\$ 19,448,472	\$ 21,014,747	\$ 21,836,712	\$ 23,510,872	\$ 23,814,713
Contracted Billing Income	\$ 203,208	\$ 203,364	\$ 208,440	\$ 212,388	\$ 254,635	\$ 254,307	\$ 254,165	\$ 254,061
Interest Income	\$ 163,470	\$ 276,264	\$ 295,386	\$ 505,383	\$ 606,461	\$ 606,461	\$ 606,461	\$ 606,461
Other Income	\$ 754,394	\$ 712,804	\$ 653,180	\$ 553,614	\$ 553,614	\$ 553,614	\$ 553,614	\$ 553,614
Total Revenues	\$ 41,952,272	\$ 42,797,381	\$ 43,811,284	\$ 45,541,508	\$ 48,599,133	\$ 51,084,050	\$ 53,961,701	\$ 55,513,738
Operating Expenses:								
Salaries & Wages	\$ 5,985,739	\$ 6,113,014	\$ 6,393,443	\$ 6,575,583	\$ 6,772,851	\$ 6,976,037	\$ 7,185,318	\$ 7,400,878
Employee Benefits	\$ 2,814,170	\$ 3,053,103	\$ 3,108,396	\$ 3,032,331	\$ 3,183,948	\$ 3,343,145	\$ 3,510,302	\$ 3,685,817
Biosolids Disposal	\$ 1,518,720	\$ 1,862,526	\$ 1,504,698	\$ 1,674,962	\$ 1,725,211	\$ 1,811,472	\$ 1,865,815	\$ 1,921,789
Chemicals	\$ 1,029,541	\$ 1,016,024	\$ 976,654	\$ 1,135,813	\$ 1,169,887	\$ 1,204,983	\$ 1,241,133	\$ 1,278,367
Contracted Services	\$ 3,182,914	\$ 2,886,889	\$ 2,988,924	\$ 3,034,136	\$ 3,125,159	\$ 3,218,915	\$ 3,315,481	\$ 3,414,945
Deferred Cost W/O	\$ 14,400	\$ 30,952	\$ 14,400	\$ 10,100	\$ 10,100	\$ 10,100	\$ 10,100	\$ 10,100
Facilities	\$ 97,819	\$ 95,113	\$ 117,322	\$ 112,013	\$ 115,373	\$ 118,834	\$ 122,399	\$ 126,071
Heat/Fuel Oil	\$ 253,672	\$ 259,770	\$ 247,693	\$ 266,481	\$ 274,475	\$ 282,710	\$ 291,191	\$ 299,927
Insurance	\$ 71,860	\$ 72,232	\$ 80,017	\$ 63,817	\$ 68,231	\$ 70,278	\$ 72,384	\$ 74,556
Materials & Supplies	\$ 1,257,027	\$ 1,048,836	\$ 1,059,423	\$ 1,123,976	\$ 1,157,695	\$ 1,192,426	\$ 1,228,199	\$ 1,265,044
Other Expense	\$ 133,981	\$ 154,682	\$ 168,617	\$ 205,952	\$ 212,131	\$ 218,494	\$ 225,049	\$ 231,800
Purchased Power	\$ 1,656,569	\$ 1,762,657	\$ 1,864,176	\$ 1,682,683	\$ 1,733,164	\$ 1,785,158	\$ 1,838,712	\$ 1,893,872
Regulatory/Taxes	\$ 205,275	\$ 205,885	\$ 216,465	\$ 213,965	\$ 220,384	\$ 226,996	\$ 233,806	\$ 240,820
Tele/Other Utilities	\$ 215,337	\$ 234,350	\$ 261,251	\$ 245,043	\$ 252,394	\$ 259,965	\$ 267,763	\$ 275,795
Transportation	\$ 888,917	\$ 915,418	\$ 935,910	\$ 963,291	\$ 992,190	\$ 1,021,955	\$ 1,052,615	\$ 1,084,193
SS - Administration	\$ 5,274,266	\$ 5,351,569	\$ 5,797,035	\$ 5,956,031	\$ 6,164,493	\$ 6,530,201	\$ 6,758,757	\$ 6,995,314
SS - Engineering Services	\$ 1,073,226	\$ 1,191,401	\$ 1,595,778	\$ 1,693,461	\$ 1,752,732	\$ 1,814,077	\$ 1,877,570	\$ 1,943,286
SS - Environmental Services	\$ 489,482	\$ 511,879	\$ 503,602	\$ 535,238	\$ 553,972	\$ 573,361	\$ 593,429	\$ 614,200
SS - Wastewater Services	\$ 1,195,778	\$ 1,352,319	\$ 1,225,285	\$ 1,358,627	\$ 1,406,179	\$ 1,455,394	\$ 1,506,333	\$ 1,559,055
SS - Water Services	\$ 150,152	\$ 91,266	\$ 159,377	\$ 158,638	\$ 264,189	\$ 273,435	\$ 283,007	\$ 292,911
Debt Service	\$ 7,613,394	\$ 8,742,831	\$ 9,577,782	\$ 10,392,178	\$ 11,931,804	\$ 13,039,543	\$ 14,550,767	\$ 14,813,427
Renewal & Replacement - Direct	\$ 4,049,034	\$ 4,324,376	\$ 3,985,651	\$ 4,255,549	\$ 4,300,849	\$ 4,400,849	\$ 4,500,849	\$ 4,600,849
Renewal & Replace - Indirect	\$ 590,000	\$ 590,000	\$ 850,000	\$ 850,000	\$ 836,722	\$ 836,722	\$ 836,722	\$ 836,722
Total Operating Expenses	\$ 39,761,273	\$ 41,933,985	\$ 43,631,899	\$ 45,539,868	\$ 48,224,133	\$ 50,665,050	\$ 53,367,701	\$ 54,859,738
	\$ 2,190,999	\$ 863,396	\$ 179,385	\$ 1,640	\$ 375,000	\$ 419,000	\$ 594,000	\$ 654,000

Consolidated Capital Budget:

	2019.	2020.	2021.	2022.	2023.
Division 10 - Allocation	\$1,200,000	\$1,950,000	\$1,525,000	\$1,525,000	\$1,525,000
Division 20 - Water	\$12,775,000	\$12,514,000	\$8,700,000	\$10,500,000	\$16,300,000
Division 50 -General	\$350,000	\$300,000			
Division 51 - Cape Elizabeth Wastewater	\$135,000	\$530,000	\$330,000	\$150,000	\$540,000
Division 53 - Cumberland Wastewater	\$20,000	\$20,000	\$420,000	\$20,000	\$20,000
Division 55 - Windham Little Falls Wastewater	\$580,000	\$20,000	\$20,000	\$20,000	\$520,000
Division 57 - Portland Wastewater	\$6,365,000	\$5,120,000	\$1,775,000	\$1,505,000	\$7,275,000
Division 61 - Gorham Village Wastewater	\$20,000	\$20,000	\$20,000	\$350,000	\$20,000
Division 62 - Westbrook Wastewater		\$25,000	\$75,000		
Division 64 - Joint Westbrook Wastewater	\$1,810,000	\$9,840,000	\$720,000	\$245,000	\$70,000
Division 66 - Peaks Island Wastewater	\$20,000	\$20,000	\$50,000	\$20,000	\$470,000
Grand Total	\$23,275,000	\$30,359,000	\$13,635,000	\$14,335,000	\$26,740,000

2019 to 2023- Financial Plan (continued)

A summary of future revenue impact to water ratepayers and wastewater municipal assessments is provided below. Total water revenues are projected to increase between 4.3% and 6.4% each year. The impact to retail customers is listed in the second table.

All 2019 wastewater assessments are at or below projections that were provided to the wastewater municipalities for ratemaking purposes last year. The updated 2020-2023 are preliminary and will be reviewed with municipal officials in November 2018 before being finalized.

Water Revenues and Municipal Assessments:

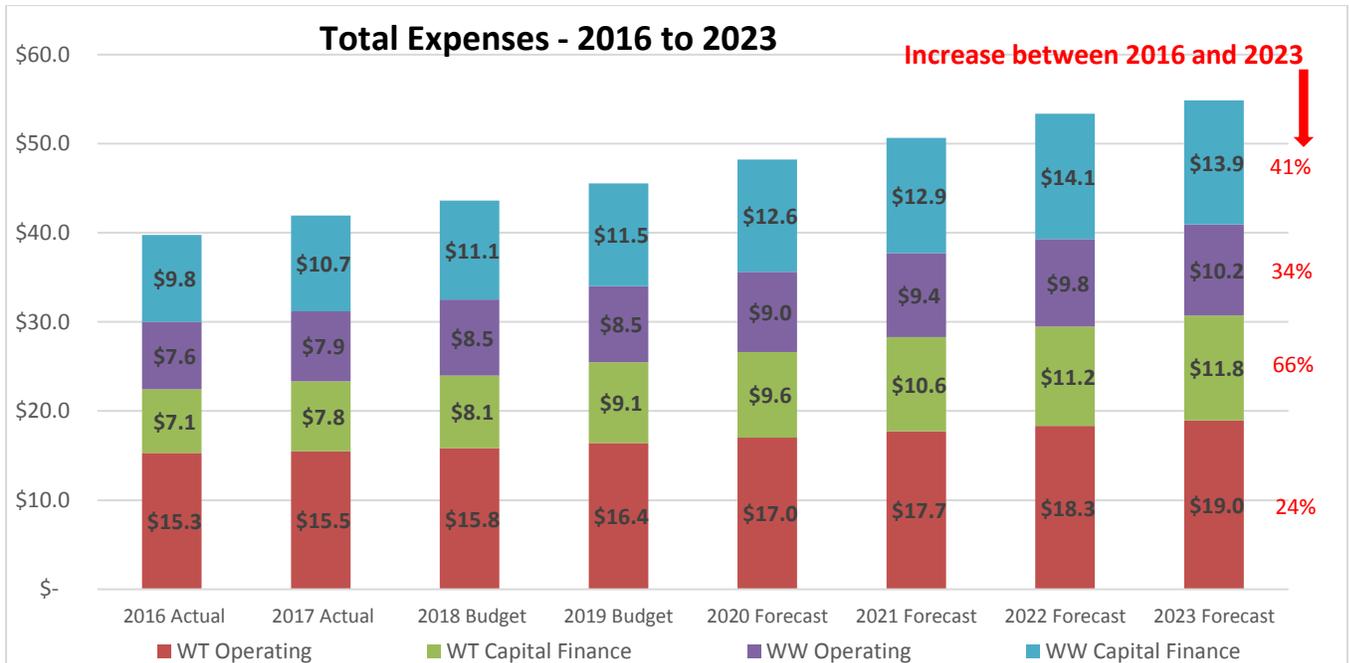
	Proposed 2019 Budget	Prior Year 2019 Projection	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Water	\$ 24,817,595	\$ 24,951,533	\$ 26,169,676	\$ 27,832,956	\$ 29,036,589	\$ 30,284,889
	4.9%	5.5%	5.4%	6.4%	4.3%	4.3%
Wastewater:						
Cape Elizabeth	1,572,912	1,632,230	1,705,860	1,821,707	1,871,327	1,907,124
	2.1%	6.0%	8.5%	6.8%	2.7%	1.9%
Cumberland	905,364	932,525	906,807	927,257	970,353	986,377
	0.0%	3.0%	0.2%	2.3%	4.6%	1.7%
Falmouth	314,112	314,112	312,050	310,089	308,147	306,225
	1.30%	1.30%	-0.7%	-1.3%	-1.3%	-1.2%
Gorham	1,133,436	1,133,802	1,160,707	1,217,934	1,594,114	1,627,718
	2.5%	2.5%	2.4%	4.9%	30.9%	2.1%
Portland	12,616,080	12,677,119	13,659,198	14,125,220	14,484,931	14,679,522
	3.0%	3.5%	8.3%	3.4%	2.5%	1.3%
Westbrook	2,539,800	2,735,830	2,880,704	3,006,947	3,821,924	3,839,070
	0.2%	8.0%	13.4%	4.4%	27.1%	0.4%
Windham	366,768	371,344	389,421	427,558	460,075	468,677
	1.7%	3.0%	6.2%	9.8%	7.6%	1.9%
Total Wastewater	\$ 19,448,472	\$ 19,796,962	\$ 21,014,747	\$ 21,836,712	\$ 23,510,872	\$ 23,814,713

Water Retail Customer Impact:

(By Dollar)		2018	2019	2020	2021	2022	2023
Residential	.62" meter, 7 HCF	\$ 23.50	\$ 24.39	\$ 25.60	\$ 27.10	\$ 27.78	\$ 29.07
Commercial	.75" meter, 80 HCF	180.23	188.75	200.80	215.86	222.70	236.07
Small Industrial	2" meter, 1,300 HCF	1,757.17	1,857.46	1,994.96	2,168.89	2,242.80	2,398.32
Large Industrial	8" meter, 56,000 HCF	56,718.32	60,115.10	64,649.27	70,319.42	72,592.95	77,694.52
Sprinkler (per year)	6" meter	428.52	447.20	472.69	504.88	519.42	547.57
Public Fire (per year)		1,400,604	1,461,652	1,544,801	1,649,982	1,697,482	1,789,466
Seasonal (per year)	.62" meter	225.03	234.84	248.20	265.10	272.73	287.51
(By Percent)							
Residential	.62" meter, 7 HCF	3.1%	3.8%	5.0%	5.9%	2.5%	4.6%
Commercial	.75" meter, 80 HCF	4.0%	4.7%	6.4%	7.5%	3.2%	6.0%
Small Industrial	2" meter, 1,300 HCF	4.9%	5.7%	7.4%	8.7%	3.4%	6.9%
Large Industrial	8" meter, 56,000 HCF	5.2%	6.0%	7.5%	8.8%	3.2%	7.0%
Sprinkler (per year)	6" meter	3.8%	4.4%	5.7%	6.8%	2.9%	5.4%
Public Fire (per year)		3.7%	4.4%	5.7%	6.8%	2.9%	5.4%
Seasonal (per year)	.62" meter	3.7%	4.4%	5.7%	6.8%	2.9%	5.4%

2019 to 2023- Financial Plan (continued)

Total expenses are projected to increase to almost \$55 million by 2023, a 38% total increase since 2016 (or 5.4% a year). As the chart shows, increases in capital financing are driving the increases with water and wastewater capital finance cost increasing by 66% and 41%, respectively. Capital finance costs consists of two components – debt service payments and contribution to the renewal and replacement funds. The debt service component portion of the total budget increases from 18% of the total budget to 29%.



Major assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Biosolids contract expires in 2021; assumed 5% increase in unit prices.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include:
 - Water: \$6M of water main replacement, \$2.5 million 407 Zone Tank at Ward's Hill, and upgrading the intake screen at the water treatment facility.
 - Cape Elizabeth Wastewater: HVAC and ultraviolet treatment upgrades at the Cape Treatment plant and several pump stations upgrades including stations at Maiden Cove, Algonquin and Stonegate South
 - Cumberland Wastewater: upgrading 7 pump stations in 2021
 - Gorham Wastewater: upgrading 4 pump stations in 2022
 - Portland Wastewater: HVAC, boiler replacement, clarifier and power backup projects at treatment facility and upgrading the Portland's Baxter Boulevard wastewater pump station in 2020
 - Westbrook: upgrading Dana Court pump station and an estimated \$10.5M aeration and secondary clarifier project at Westbrook Regional Treatment Facility in 2020, which impacts Westbrook, Gorham and Windham's assessment
 - Windham Wastewater: upgrading the Depot Street pump station in 2019

GFOA Budget Presentation Award

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Portland Water District, Maine for its annual budget for the year beginning January 1, 2018. In order to receive the award, a government unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device.

This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and are submitting it to GFOA to determine its eligibility for another award.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Portland Water District
Maine**

For the Fiscal Year Beginning

January 1, 2018

Christopher P. Morrill

Executive Director

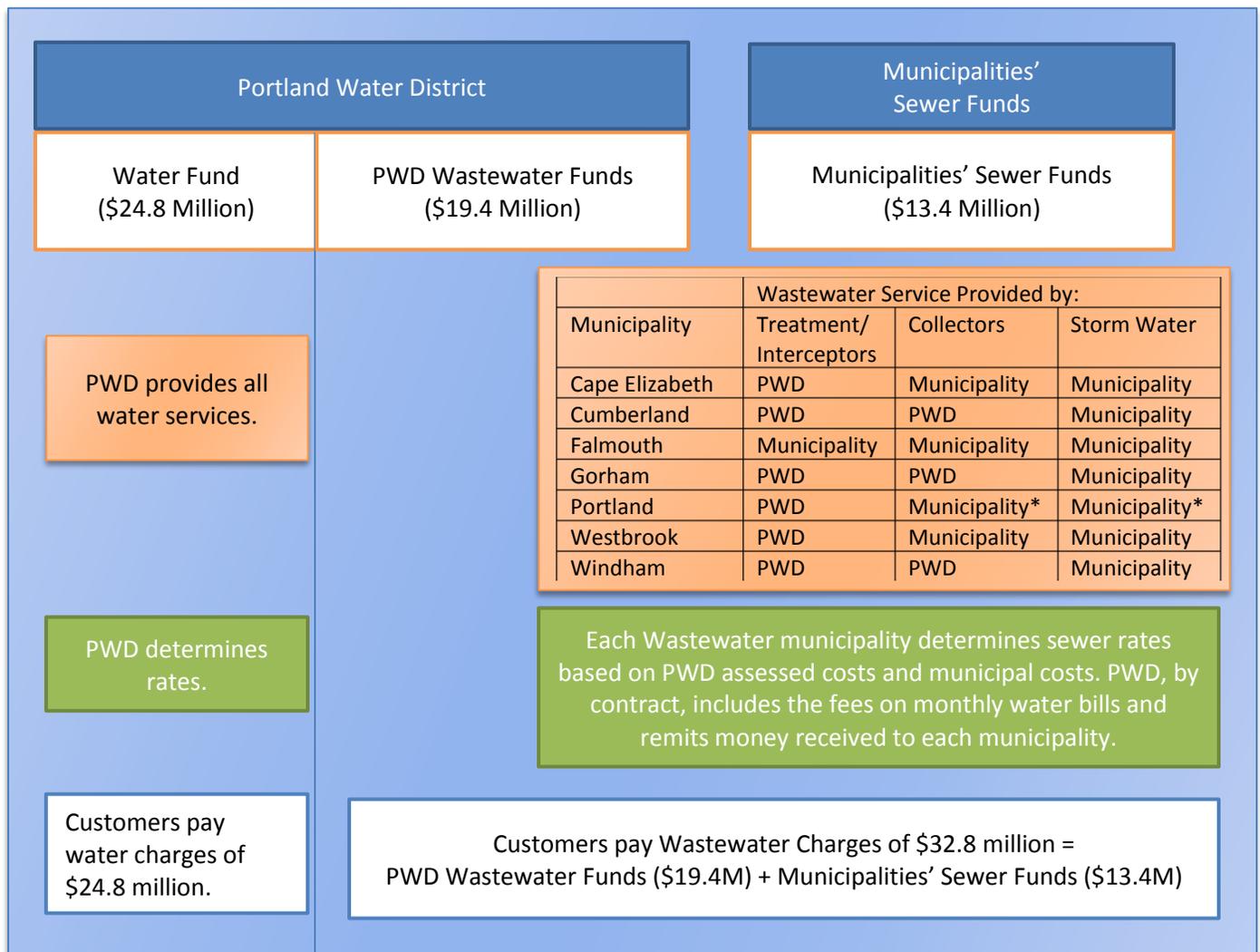
Introduction

The District uses seven enterprise funds – a water fund and six wastewater funds. The six wastewater funds are for the towns of Cape Elizabeth, Cumberland, Gorham and Windham and the cities of Portland and Westbrook. Each of the seven funds has a separate operating and capital budget appropriation. Details are provided for each fund in the Financial Summary section.

Relationship between Portland Water District Funds/Municipalities’ Sewer Funds and the Ratepayer

The District provides water service directly to ratepayers. The cost of water service is recorded in a separate enterprise fund. Ratepayers’ individual monthly charges are billed to customer by the District.

The District provides certain wastewater services on behalf of six communities – each with a separate enterprise fund. The services provided by the District and Municipality are listed below. The District bills the Municipality for services rendered. The Municipality determines the ratepayers’ rates to recover the District bill and their internal costs. The Municipality has requested the District to include these monthly fees on the water bill mailed to the Ratepayers.

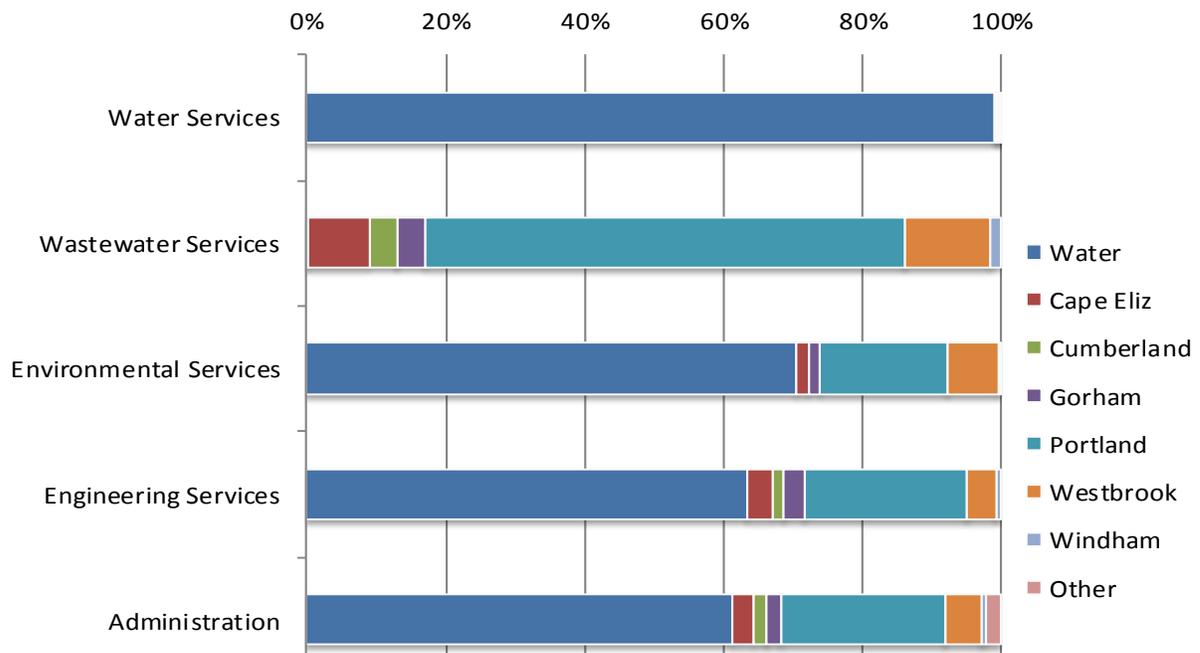


*By contract, the District maintains collectors and storm drain system on Peaks Island, a small part of Portland

Relation of Functional Units (Departments) to Funds

As expenses are incurred, each department charges a cost center, which indicates to what fund the expenditure belongs. The totals below show how the costs for each department are spread across the organization. Not surprisingly, 99.1% of the costs of the Water Services department are assigned to the Water Fund and 99.9% of the Wastewater Services department costs go to the Wastewater funds. The expenditures of the remaining departments assign between 61.4% and 70.6% of costs to the Water Fund with the remaining going to the Wastewater funds.

Department	Dept Exp	Water	Cape Eliz	Cumber	Gorham	Portland	Westbr	Windham	Other
Water Srvs	\$8,795,473	99.1%	0.1%	0.0%	0.0%	0.5%	0.1%	0.0%	0.2%
Wastewater Srvs	9,567,783	0.1%	9.1%	4.0%	4.0%	68.9%	12.4%	1.5%	0.0%
Environmental Srvs	2,068,960	70.6%	1.6%	0.0%	1.6%	18.4%	7.5%	0.3%	0.0%
Engineering Srvs	4,356,957	63.3%	3.7%	1.6%	3.1%	23.3%	4.4%	0.6%	0.0%
Administration	5,821,457	61.4%	3.0%	1.7%	2.3%	23.5%	5.2%	0.6%	2.3%
<u>Non-Departmental</u>	<u>260,965</u>	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Department Exp	30,871,595								
<u>(less) Trans Exp</u>	<u>(829,454)</u>								
Fund Expense	30,042,141								

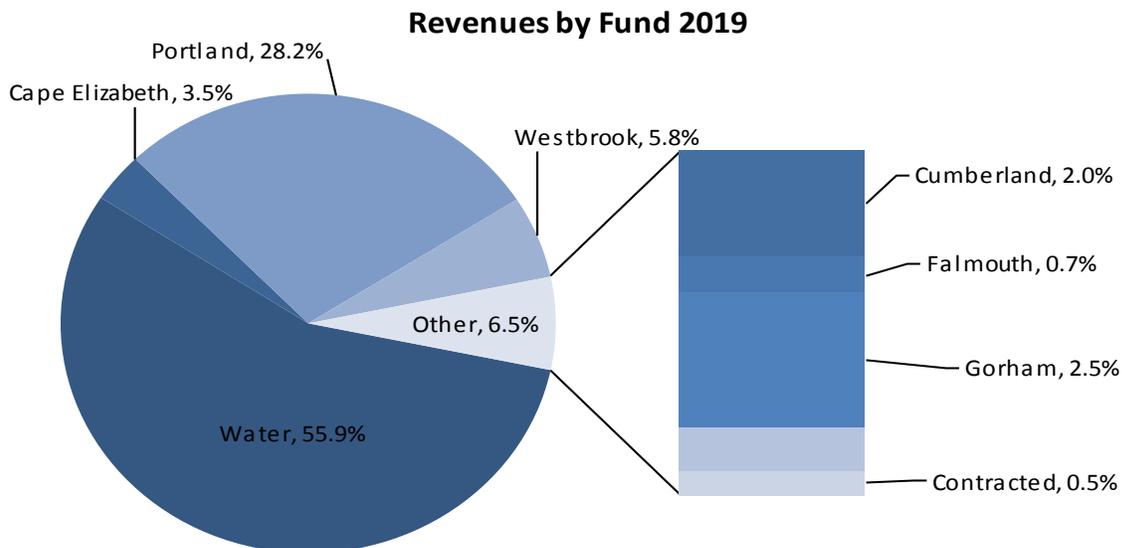


More details on how costs are allocated between departments and funds are included in the Financial Policy section.

2019 Operating Budget by Fund Summary

The table provides a summary of all funds and contract billing cost centers with a grand total. The individual fund information is on the following pages.

	Total	Water	Cape Eliz	Cumber	Gorham	Portland	Westbk	Windham	Falmouth/ Contract
Beg Balance	\$11,984,793	\$6,996,070	\$410,962	\$279,915	\$310,054	\$3,106,012	\$752,234	\$86,395	\$43,151
Water Revenue	24,817,595	24,817,595	-	-	-	-	-	-	-
WW Assess	19,448,472	-	1,572,912	905,364	1,133,436	12,616,080	2,539,800	366,768	314,112
Contract Billing	212,388	-	-	-	-	-	-	-	212,388
Interest Income	505,383	285,521	14,143	9,980	19,518	104,939	62,258	6,690	2,334
Other Income	553,614	374,114	-	-	-	141,600	37,900	-	-
	45,537,452	25,477,230	1,587,055	915,344	1,152,954	12,862,619	2,639,958	373,458	528,834
Depart Expense	30,042,141	16,405,798	1,198,280	534,162	636,428	9,126,276	1,788,783	199,519	152,895
Debt Service	10,392,178	5,783,554	240,511	314,073	398,370	2,649,176	510,412	144,034	352,048
Renew I & Repl	5,105,549	3,285,447	148,264	67,109	118,156	1,087,167	340,763	29,905	28,738
	45,539,868	25,474,799	1,587,055	915,344	1,152,954	12,862,619	2,639,958	373,458	533,681
Surplus (Deficit)	(2,416)	2,431	-	-	-	-	-	-	(4,847)
Xfer-Cap Resrv	(127,838)	(127,838)	-	-	-	-	-	-	-
Ending Surplus	\$11,854,539	\$6,870,663	\$410,962	\$279,915	\$310,054	\$3,106,012	\$752,234	\$86,395	\$38,304

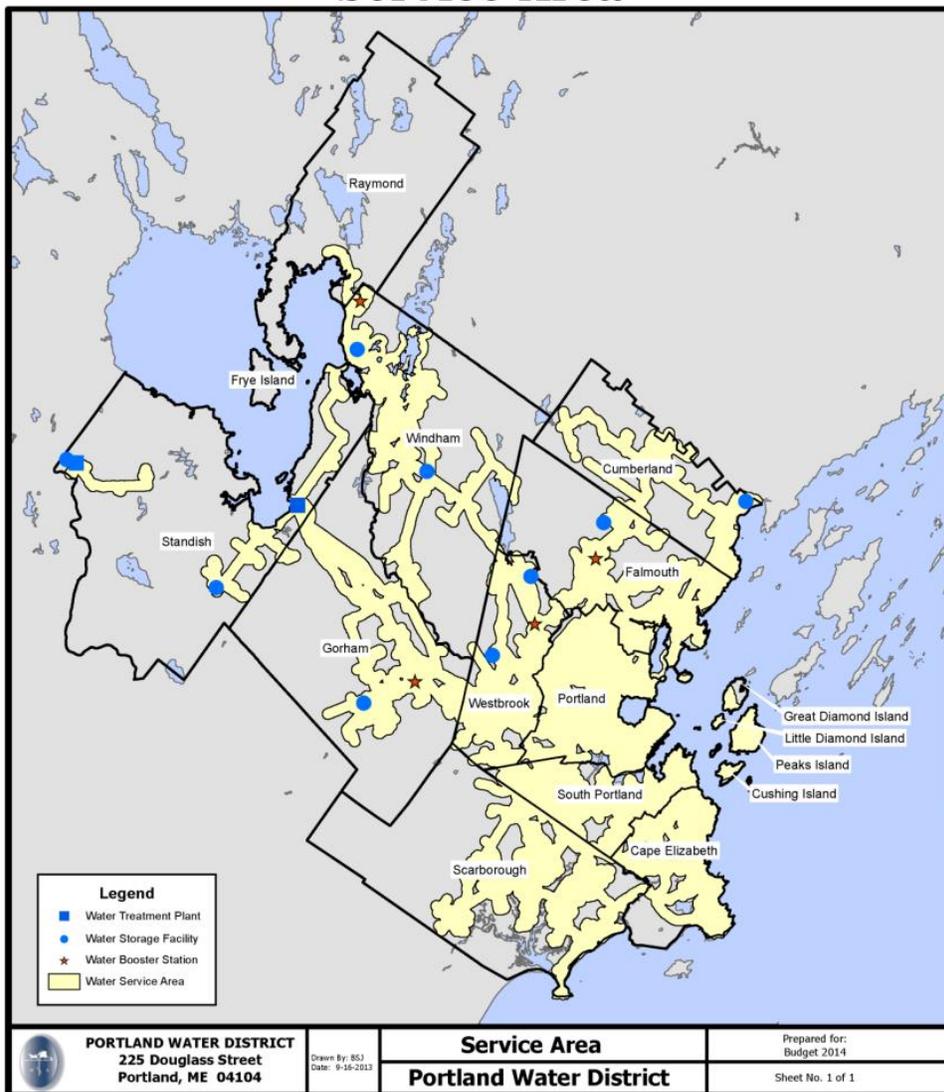


Fund: Water

Background

The Portland Water District's charter authorizes the District to provide service to the inhabitants of 11 cities and towns. Approximately 210,000 inhabitants are served portable drinking water. In addition, water for public and private fire protection is provided. Water operation is regulated by the Department of Health and Human Services for water quality and the Maine Public Utilities Commission. Effective January 1, 2016, the Commission granted a waiver from their rules for certain laws/rules including the Board review of water rate changes, financing transactions, capital reserve and new customer service line standards.

Portland Water District Service Area



Fund: Water

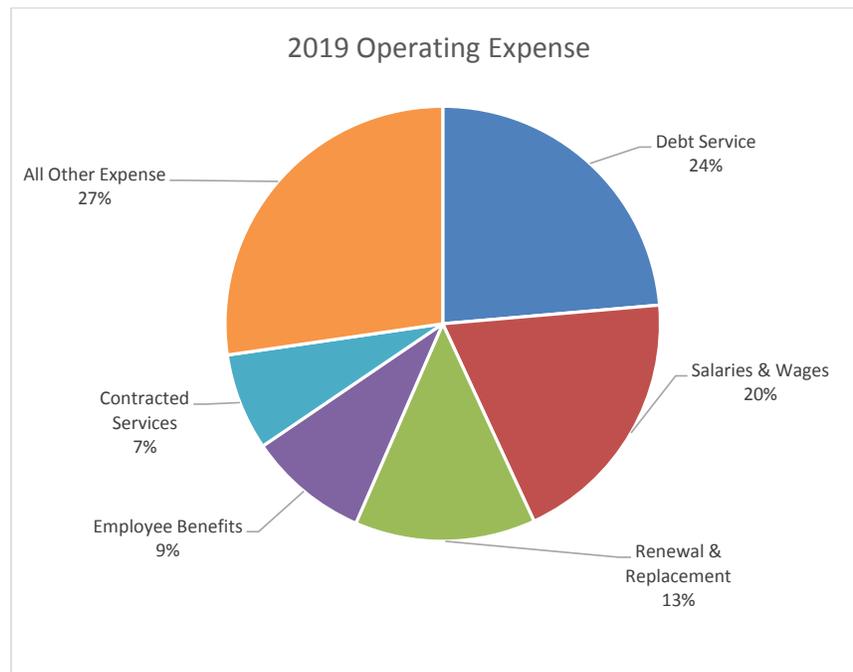
The Portland Water District operates two water systems; the Greater Portland System delivers 22 million gallons of water per day from Sebago Lake and the Steep Falls System delivers 30,000 gallons per day from a single well in Standish. The quality of the water from Sebago Lake is exemplary, and the District was fortunate to receive a waiver from the filtration requirement that is normal for most surface water supplies. In order to maintain this waiver, the District must have an effective source protection program and meet stringent requirements for disinfecting the water.

2019 Financial Summary

The proposed 2019 Operating expense and Capital budgets are \$25,474,799 and \$13,975,000, respectively.

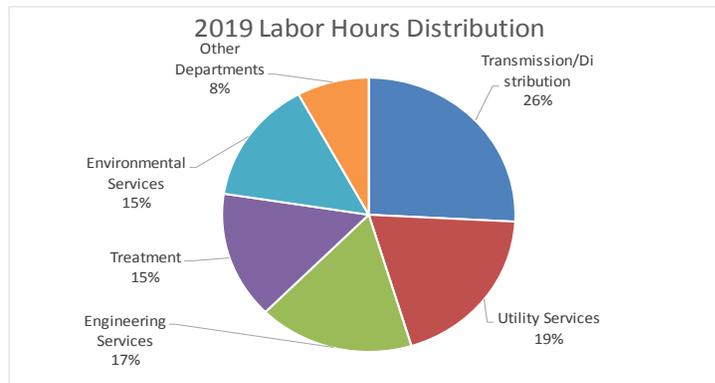
Operating Expense was \$1,510,980, or 6.3%, higher than the previous year. Departmental Expense was up 3.6% (\$571,179) and Renewal & Replacement (direct & indirect) was up \$151,324 (4.8%). Debt Service increased \$788,477 (15.8%) due to newly issued debt.

The Capital budget includes \$7 million for distribution main renewals. Additionally, \$3.8 million in capital work involving implementing a new Asset, Billing and Customer Relations (ABC) computer system.



2019 Operating Expense Highlights

Salaries/Wages – Wages rates increased an average of 4.2% as total hours decreased 0.7% (1,249 hours). The result was an overall increase of \$157,095 (3.4%).



Employee Benefits – The benefit rate (including FICA) decreased from 53.4% in 2018 to 50.51% in 2019 due to lower pension expenses. Overall, employee benefits expense decreased 1.5% (\$33,336).

Chemicals – Costs are budgeted to increase \$71,611 (18.1%). Large increases in the budgeted per unit costs are planned for Caustic Soda and Sodium Hypochlorite. Usage is relatively unchanged from the prior year.

Contracted Services – This cost for services provided by third party vendors, increased \$141,576 (8.7%). Increases in Paving (\$100k) and Contractor Construction (\$30k) were based on historical usage and anticipated future needs.

Facilities – The cost of Douglass Street facilities utilized by the Water Fund decreased 4.5% (\$5,309). This was primarily due to lower labor/benefit costs at the facility.

Heat/Fuel Oil – This expense, which covers the cost of fuel used for heating the generator at the treatment plant, increased 9.6% (\$8,964) due to a rise in the per gallon cost of heating oil.

Other Expense – Other Expense increased \$37,295 due to a shift in dues to the Water fund only that had previously been allocated to all funds such as American Water Works Association.

Purchased Power – Overall, the budget was down \$59,279 or 14.6% primarily due to a reduction in supply rates. In addition the on-peak demand usage and demand rates for the Sebago Lake Water Treatment Facility (SLWTF) are expected to be less than the previous budget.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as administrative time or training) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services allocated to the Water fund increased \$188k or 4.2%. The increase, which mostly came from the Engineering Services area, was due to anticipated computer license fees due to the ABC project.

Debt Service – This is the annual principal and interest payments on bonds issued to finance capital projects. This expense will increase 15.8% (\$788,477) in 2019 due to new debt issued primarily for new main renewal projects.

Renewal & Replacement – These are dollars put aside to fund capital projects. They will increase \$151,324 to help fund capital projects such as main renewals.

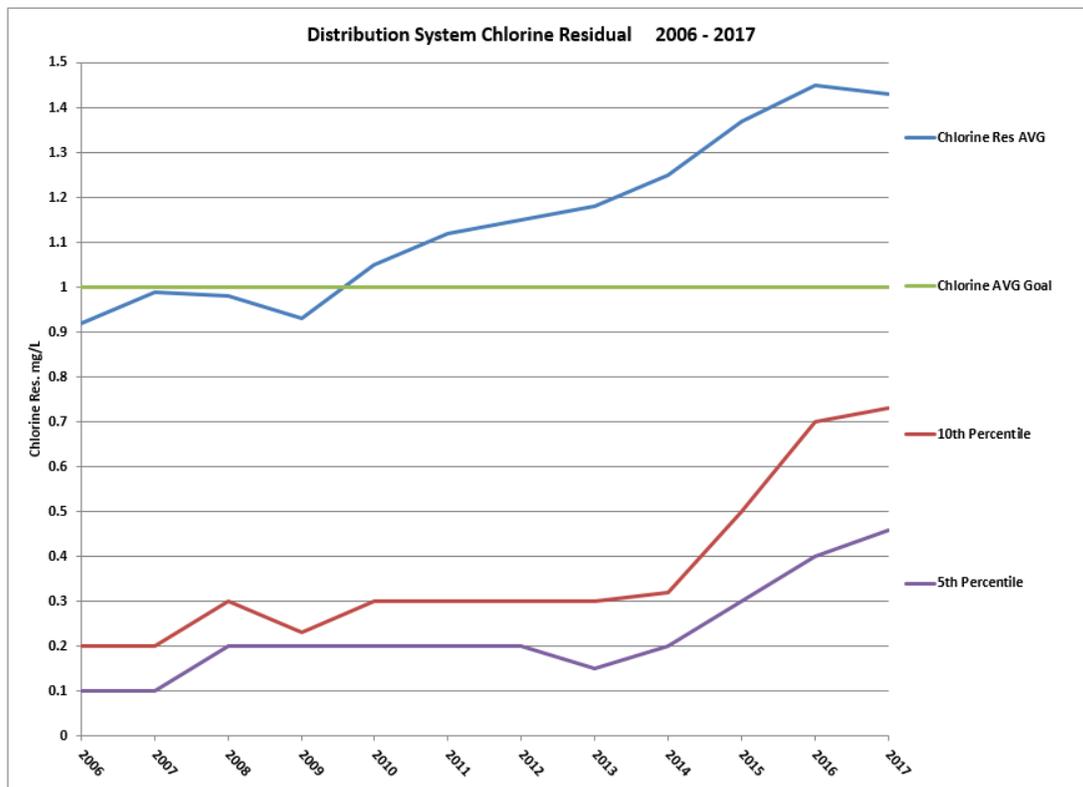
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Water Sales	\$23,186,245	\$11,062,181	\$23,650,742	\$24,817,595	\$1,166,853	4.9%
Interest Income	149,771	109,117	151,440	285,521	134,081	88.5%
Other Income	417,357	241,885	385,680	374,114	-11,566	-3.0%
FEMA Reimbursement	<u>2,312</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>n/a</u>
Total Revenue	23,755,685	11,413,183	24,187,862	25,477,230	1,289,368	5.3%
Salaries & Wages	4,470,118	2,248,680	4,609,666	4,766,758	157,092	3.4%
Employee Benefits	2,230,729	1,102,355	2,226,806	2,193,470	-33,336	-1.5%
Chemicals	386,476	198,689	394,957	466,568	71,611	18.1%
Contracted Services	1,753,273	722,263	1,623,135	1,764,711	141,576	8.7%
Facilities	95,113	62,887	117,322	112,013	-5,309	-4.5%
Heat/Fuel Oil	124,670	67,527	93,124	102,088	8,964	9.6%
Insurance	27,575	11,923	30,486	25,046	-5,440	-17.8%
Materials & Supplies	673,483	327,241	653,563	696,096	42,533	6.5%
Other Expense	130,791	36,513	142,107	179,402	37,295	26.2%
Purchased Power	391,693	202,675	405,064	345,785	-59,279	-14.6%
Regulatory/Taxes	205,885	198,445	216,465	213,965	-2,500	-1.2%
Tele/Other Utilities	81,482	42,887	103,277	101,532	-1,745	-1.7%
Transportation	752,167	361,544	751,413	782,712	31,299	4.2%
SS - Administration	3,231,917	1,685,262	3,479,399	3,588,763	109,364	3.1%
SS - Engineering Services	762,522	416,781	811,894	890,804	78,910	9.7%
SS - Environmental Services	119,491	39,149	73,388	72,618	-770	-1.0%
SS - Water Services	<u>55,814</u>	<u>34,280</u>	<u>102,553</u>	<u>103,467</u>	<u>914</u>	<u>0.9%</u>
Operating Expense	15,493,199	7,759,101	15,834,619	16,405,798	571,179	3.6%
Debt Service	4,419,336	2,504,934	4,995,077	5,783,554	788,477	15.8%
Renewal & Replace - Direct	3,052,894	1,300,000	2,600,000	2,750,000	150,000	5.8%
Renewal & Replace - Indirect	<u>365,736</u>	<u>267,064</u>	<u>534,123</u>	<u>535,447</u>	<u>1,324</u>	<u>0.2%</u>
Total Expense	23,331,165	11,831,099	23,963,819	25,474,799	1,510,980	6.3%
Current Year Surplus (Deficit)	424,520	-417,916	224,043	2,431		
Transfer to Capital Reserve	-114,213	-31,144	-62,288	-127,838		
Transfer to Land Reserve	0	0	0	0		
Land Cash Reserve Expense	57,080	0	0	0		
Prior Year Surplus	<u>5,623,568</u>	<u>5,990,955</u>	<u>6,320,897</u>	<u>6,996,070</u>		
Accumulated Surplus	5,990,955	5,541,895	6,482,652	6,870,663		

Operation Summary

The current treatment processes at the Sebago Lake Water Treatment Facility (SLWTF) include ozone, ultra-violet energy (UV) and chloramines for disinfection, fluoridation for dental benefit, and the addition of a corrosion control inhibitor. In order to meet the requirements of the new Long-Term II Treatment Rule, the District installed a UV treatment system in 2014. The construction project also included the replacement of the 20-year-old ozone production system.

The District maintains approximately 1,000 miles of water mains that carry the water from Sebago Lake to customer's homes. During the past few years, more efforts are being focused on the renewal of older water mains in our system. In 2019, the District plans to spend \$7.0 million dollars to replace and upgrade these mains, and intends to maintain this level of investment in order to achieve our renewal objectives. In addition, the Transmission/Distribution group performs operation and maintenance procedures to ensure that our customers experience minimal disruptions in water service.

Water quality in the distribution system is constantly monitored by routine sampling and through tracking of water quality inquiries. This information is reviewed and shared monthly with office and field employees to help make water quality everyone's responsibility. One of the most important means of ensuring high quality water is the maintenance of an optimized chlorine residual throughout the distribution system. Staff have been working for a few years to increase the residuals at the far ends of the system. As shown in the chart below, the chlorine residuals have significantly increased since the addition of UV in 2014. This additional level of treatment is having a positive effect on the distribution system.



Operation Summary (continued)

In an effort to improve system operation and prioritize activities, the District joined the Partnership for Safe Water in 2014. The Partnership is a voluntary continuous improvement program that uses optimization methods to improve drinking water systems. Initially, the partnership successfully developed and implemented a self-assessment and optimization program for surface water treatment plants by many organizations; including American Water Works Association, US EPA, Association of Metropolitan Water Agencies, National Association of Water Companies, Association of State Drinking Water Administrators, and the Water Research Foundation.



The District reported basic distribution system data for the first few years. In 2016 District staff began a 12-month process to prepare for what the Partnership refers to as the third-phase submittal. The focus of this work is to help utilities evaluate their own distribution system performance against regulatory requirements and industry Best Management Practices. In areas where improvement is desired, a continuous improvement process supports the creation of short-term and long-term goals

The Distribution System Optimization Program focuses on topics such as maintenance of system chlorine residuals, hydrant and valve maintenance, management of main breaks, water loss, customer complaints, Cross Connection Control Program, main renewal programs, staffing, and funding. The district is not eligible to join the Treatment Plant Optimization Program, because the District has a waiver from filtration.

In future years, the District expects it will adjust and/or change some service standards, develop projects and initiatives to support recommendations, and incorporate industry Best Management Practices into everyday operations.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

Expenditures by CIP Year:

	<u>2018</u>	<u>2019</u>	<u>Total</u>
Projects:			
Water Only	\$ -	\$ 12,775,000	\$ 12,775,000
Water Allocated	\$ 1,000,000	\$ 1,200,000	\$ 2,200,000
Total by CIP Year	<u>\$ 1,000,000</u>	<u>\$ 13,975,000</u>	<u>\$ 14,975,000</u>

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue 2019</u>	<u>Bond Issue 2020</u>	<u>Funding Total</u>
Beginning Balance	\$ 3,097,522			
2019 Contribution	<u>\$ 3,920,000</u>			
Total R&R Balance Available	<u>\$ 7,017,522</u>			
Projects:				
Water Only	\$ 2,775,000	\$ 7,900,000	\$ 2,100,000	\$ 12,775,000
Water Allocated	\$ 1,200,000	\$ 1,000,000		\$ 2,200,000
Total	<u>\$ 3,975,000</u>	<u>\$ 8,900,000</u>	<u>\$ 2,100,000</u>	<u>\$ 14,975,000</u>
Ending Balance	<u>\$ 3,042,522</u>			

Projections for Rate-Making Purposes

Multi-year projections are made for the water fund to provide an understanding of the future impact on water rates.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

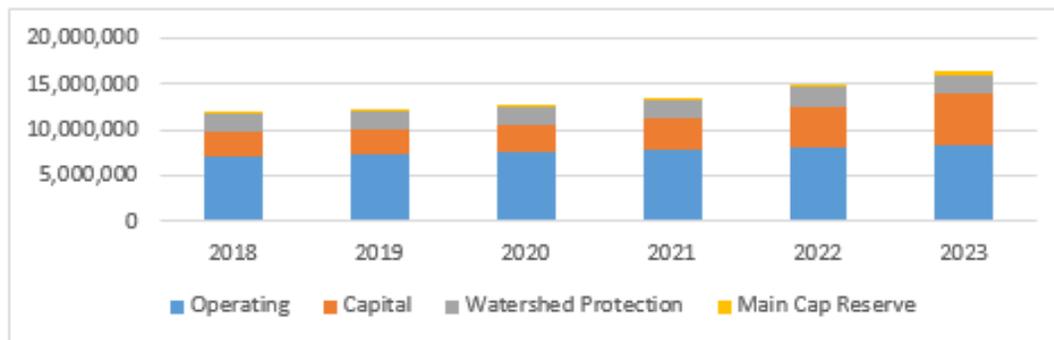
- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include \$6M of water main replacement, \$2.5 million 407 Zone Tank at Ward's Hill and upgrading the intake screen at the treatment facility.

Summary of Projection Impact:

Water Revenues are projected to increase to \$30.3 million in 2023, a 22% increase over 2019 Budget, with the most significant cost change related to debt service issued to finance capital projects.

Operating Reserve balance meets the 25% target balance. Capital R&R balance is projected to be approximately \$2 million above target.

Reserve Fund Balances



Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023
21%	23%	24%	25%	26%	26%

Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023
167%	157%	157%	152%	150%	148%

Projections for Rate-Making Purposes (continued)

Water Fund

Operating Fund:

	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Revenues:					
Water Sales	24,817,595	26,169,676	27,832,956	29,036,589	30,284,889
Interest Income	285,521	342,625	342,625	342,625	342,625
Other Income	374,114	374,114	374,114	374,114	374,114
Total Revenues	25,477,230	26,886,415	28,549,695	29,753,328	31,001,628
Operating Expenses:					
Salaries & Wages	4,766,758	4,909,761	5,057,054	5,208,766	5,365,029
Employee Benefits	2,193,470	2,303,144	2,418,301	2,539,216	2,666,177
Chemicals	466,568	480,565	494,982	509,831	525,126
Contracted Services	1,764,711	1,817,652	1,872,182	1,928,347	1,986,197
Facilities	112,013	115,373	118,834	122,399	126,071
Heat/Fuel Oil	102,088	105,151	108,306	111,555	114,902
Insurance	25,046	25,797	26,571	27,368	28,189
Materials & Supplies	696,096	716,979	738,488	760,643	783,462
Other Expense	179,402	184,784	190,328	196,038	201,919
Purchased Power	345,785	356,159	366,844	377,849	389,184
Regulatory/Taxes	213,965	220,384	226,996	233,806	240,820
Tele/Other Utilities	101,532	104,578	107,715	110,946	114,274
Transportation	782,712	806,193	830,379	855,290	880,949
SS - Administration	3,588,763	3,714,370	3,954,173	4,092,569	4,235,809
SS - Engineering Services	890,804	921,982	954,251	987,650	1,022,218
SS - Environmental Services	72,618	75,160	77,791	80,514	83,332
SS - Water Services	103,467	172,578	178,618	184,870	191,340
	16,405,798	17,030,610	17,721,813	18,327,657	18,954,998
Debt Service	5,783,554	6,271,682	7,133,759	7,621,548	8,132,507
Renewal & Replacement - Direct	2,750,000	2,800,000	2,900,000	3,000,000	3,100,000
Renewal & Replace - Indirect	535,447	534,123	534,123	534,123	534,123
Capital Finance Expense	9,069,001	9,605,805	10,567,882	11,155,671	11,766,630
Total Operating Expenses	25,474,799	26,636,415	28,289,695	29,483,328	30,721,628
Current Year Surplus(Deficit)	2,431	250,000	260,000	270,000	280,000
Prior Year Surplus	6,996,070	6,998,501	7,248,501	7,508,501	7,778,501
Accumulated Surplus	6,998,501	7,248,501	7,508,501	7,778,501	8,058,501
Target Balance(25% of budget)	6,368,700	6,659,104	7,072,424	7,370,832	7,680,407
Above/(Below)	627,370	586,966	433,646	405,238	375,663

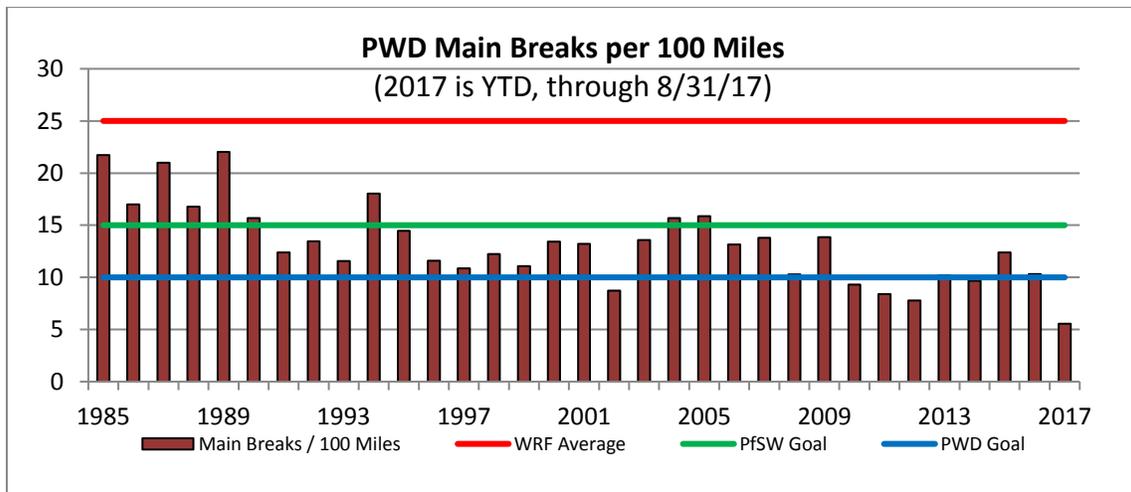
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$3,015,923

	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
R&R Balance BOY	\$ 2,757,372	\$ 2,732,372	\$ 3,018,372	\$ 3,543,372	\$ 4,568,372
Contribution	\$ 2,750,000	\$ 2,800,000	\$ 2,900,000	\$ 3,000,000	\$ 3,100,000
Withdrawals	\$ (2,775,000)	\$ (2,514,000)	\$ (2,375,000)	\$ (1,975,000)	\$ (1,975,000)
R&R Balance EOY	\$ 2,732,372	\$ 3,018,372	\$ 3,543,372	\$ 4,568,372	\$ 5,693,372

Water Main Renewals



Our commitment to maintain aging water infrastructure includes replacing water mains. The 2019 budget continues this commitment with planned projects totaling \$8.8 million dollars. The projects will be funded with current year’s revenue (\$1.3 million) and bond proceeds (\$7.5 million). The increased investment in main renewal has impacted the number of main breaks.

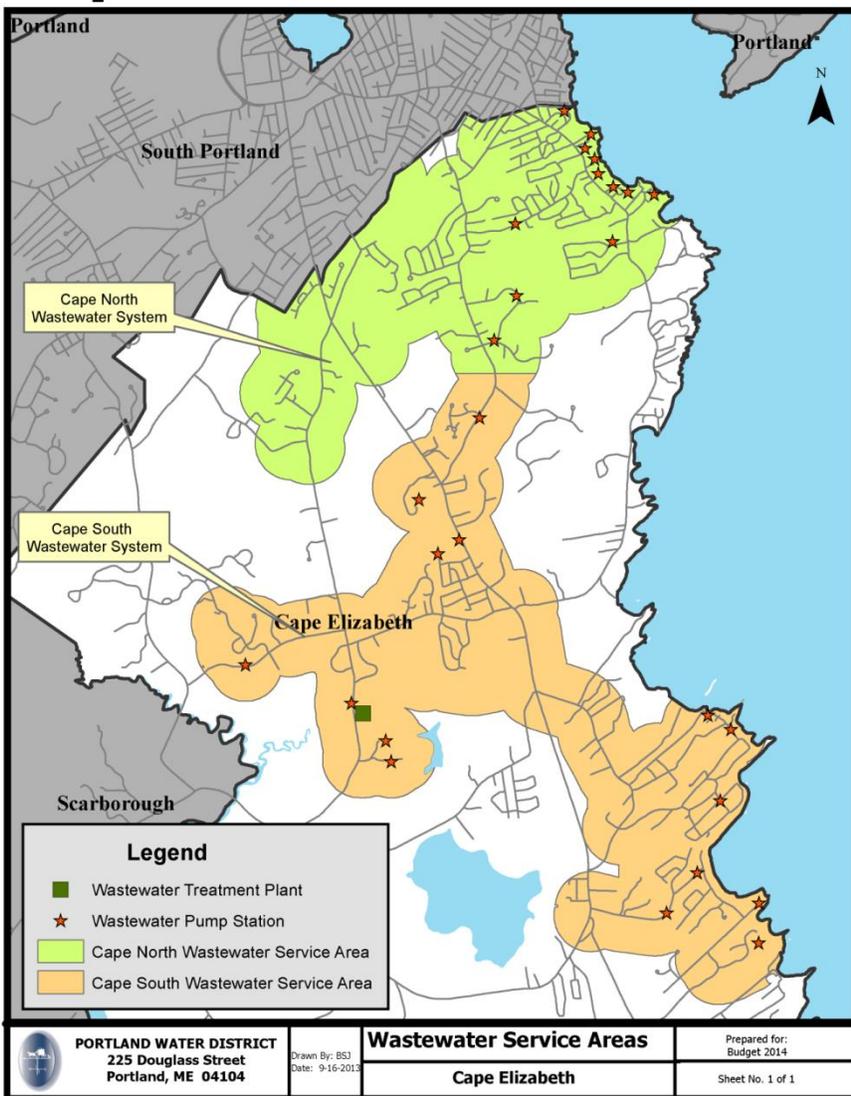


Fund: Wastewater - Cape Elizabeth

Background

The Portland Water District’s charter authorizes the District to provide wastewater treatment and collection system-interceptors service to the town. The town maintains most of the collection system but has contracted with the District to maintain several pump stations with that system. The District operates a treatment facility that treats wastewater from the southern section of the town and contracts with the City of South Portland to provide treatment services for the northern section of the town. Additionally, by contract, the District provides utility billing services.

Cape Elizabeth Wastewater Service Area



Summary of Services Provided:

Treatment:

Cape South 0.52 million gallons/ day

Cape North 0.715 million gallons/day (by South Portland’s plant)

Collection System:

27 Pump Stations with 18.8 miles of pipe

Utility Billing Services:

Annual Billings of \$2,152,857 on 2,352 Customers (avg. \$76.28/month)

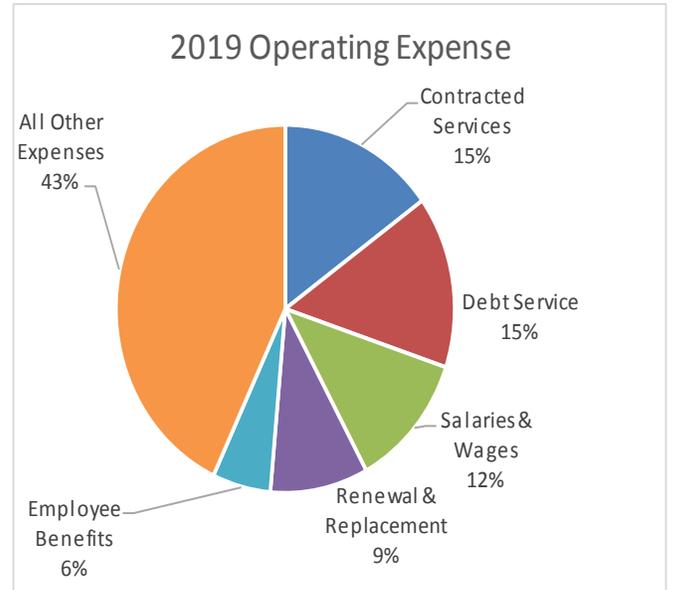
Fund: Wastewater - Cape Elizabeth

2019 Financial Summary

The proposed assessment of \$1,572,912 is a 2.5% increase. The assessment is lower than the forecasted assessment provided to the town last year.

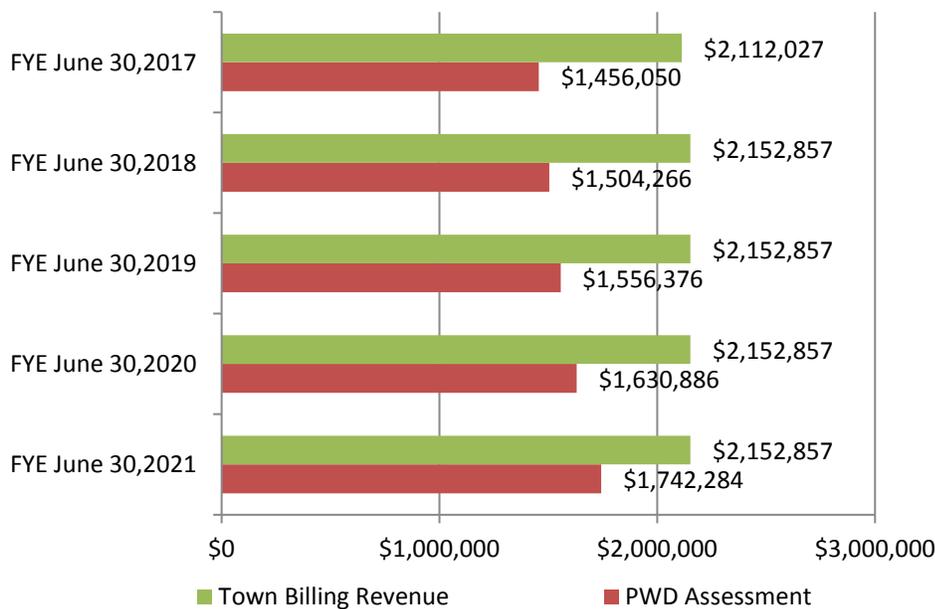
The proposed 2019 Operating Expense and Capital budgets are \$1,587,055 and \$135,000 respectively. The Operating Expense budget increased \$39,225 or 2.5%.

The 2019 Capital budget includes the design for upgrades to the Maiden Cove pump station. There is also a rotary drum thickener rehabilitation and RAS/WAS (return activated sludge/waste activated sludge) piping for the Cape Elizabeth WWTF that will be funded from renewal and replacement funds.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is December 31. The chart below compares the cash as collected by the District for sewer billing on their behalf and the District's assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines when to increase the sewer billing rates.



Revenue Assumptions:

- Consumption is for the 12 months ending June 30, 2018

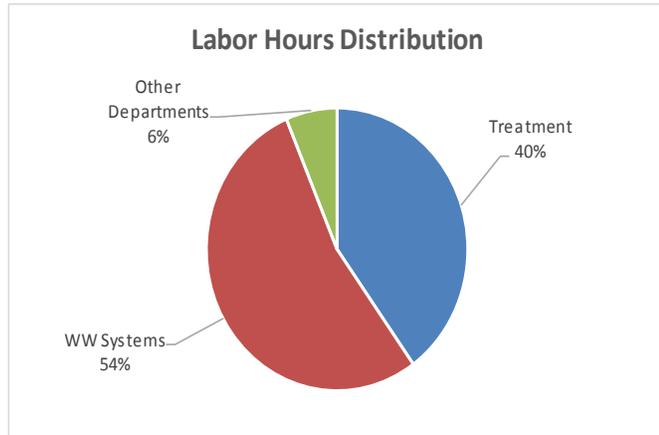
- Rates Assumed:

Effective Date:	Base/Per HCF
Mar 2013	\$43/\$5.25
Mar 2014	\$46/\$5.41
Mar 2015	\$48/\$5.57
Mar 2016	\$49.50/\$5.68

2019 Operating Expense Highlights

Salaries/Wages – Labor hours budgeted increased 2.7% (188 hours). This combined with the average wage rates increase of 3.1% resulted in a 5.9% (\$10,541) increase in Salaries/Wages.

Employee Benefits – The benefit rate (including FICA) decreased from 53.40% in 2018 to 50.51% in 2019 due to lower pension costs. Overall, Employee Benefits expense decreased 0.7% (\$613).



Biosolids Disposal – The budget for Biosolids Disposal increased \$1,690 (9.0%). The budget assumes a 20 wet ton (7.1%) increase in volume along with a \$1.03 (2.0%) increase to the per ton price as allowed in the vendor contract.

Chemicals – The budget decreased 48.3% (\$9,745) primarily due to the elimination of sodium hypochlorite and sodium bisulfite as part of the UV treatment upgrade.

Contracted Services – The budget decreased 2% (\$5,446) due to lower treatment costs expected to be charged by South Portland and less inspection services of the interceptors and collectors expected.

Heat/Fuel Oil – The budget increased 1.9% (\$273) as a reduction in volume based on historical usage mostly offsets the projected increase to the cost per gallon of heating oil.

Purchased Power – The Purchased Power budget decreased 2.5% (\$1,865) mainly due to a reduction in supply rates.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service, billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$21,182 or 5.2%. The increase in the Wastewater area was related to the addition of an engineering position to that group.

Debt Service – This is the annual principal and interest payments on bonds issued to finance capital projects. This cost increased \$3,422 (1.4%) from the prior year budget to \$240,511 with the issuance of debt relating to new capital projects.

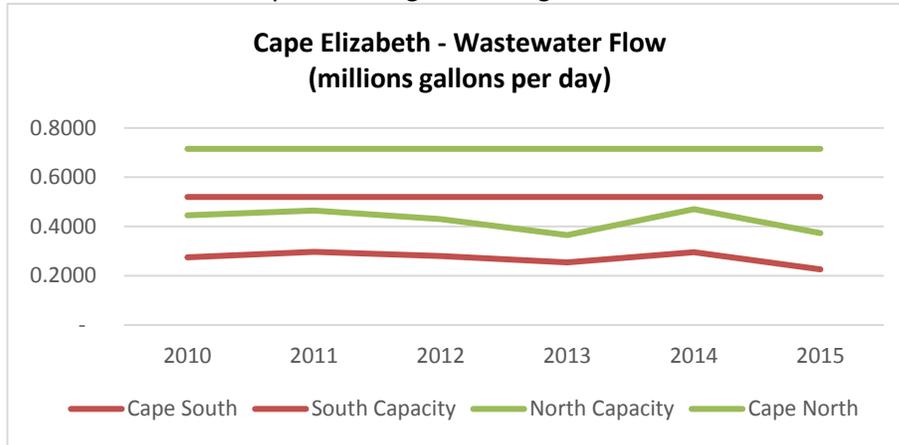
Renewal & Replacement – These are dollars put aside to fund capital projects. A contribution of \$148,264 will be made in 2019. The increase (\$24,687) is for anticipated capital projects.

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,468,692	\$769,920	\$1,539,840	\$1,572,912	\$33,072	2.1%
Interest Income	6,889	5,528	7,990	14,143	6,153	77.0%
<u>FEMA Reimbursement</u>	<u>15,485</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>n/a</u>
Total Revenue	1,491,066	775,448	1,547,830	1,587,055	39,225	2.5%
Salaries & Wages	177,185	87,608	178,798	189,339	10,541	5.9%
Employee Benefits	89,065	44,046	88,971	88,358	-613	-0.7%
Biosolids Disposal	25,954	11,105	18,810	20,500	1,690	9.0%
Chemicals	15,706	10,015	20,165	10,420	-9,745	-48.3%
Contracted Services	285,399	126,379	279,281	273,835	-5,446	-2.0%
Deferred Cost W/O	25,008	0	0	0	0	n/a
Heat/Fuel Oil	11,341	15,258	14,503	14,776	273	1.9%
Insurance	5,056	2,177	5,290	4,317	-973	-18.4%
Materials & Supplies	24,916	20,669	38,850	40,510	1,660	4.3%
Other Expense	4,005	3,328	4,150	4,150	0	0.0%
Purchased Power	76,745	52,323	74,834	72,969	-1,865	-2.5%
Tele/Other Utilities	15,325	10,641	18,327	15,778	-2,549	-13.9%
Transportation	35,799	18,225	41,515	38,476	-3,039	-7.3%
SS - Administration	168,201	89,395	184,779	185,908	1,129	0.6%
SS - Engineering Services	41,133	23,855	75,385	77,290	1,905	2.5%
SS - Environmental Services	31,078	12,587	30,187	28,215	-1,972	-6.5%
SS - Wastewater Services	119,364	61,264	110,244	130,654	20,410	18.5%
<u>SS - Water Services</u>	<u>1,557</u>	<u>928</u>	<u>3,075</u>	<u>2,785</u>	<u>-290</u>	<u>-9.4%</u>
Operating Expense	1,152,837	589,803	1,187,164	1,198,280	11,116	0.9%
Debt Service	204,830	113,007	237,089	240,511	3,422	1.4%
Renewal & Replacement - Direct	80,000	50,000	100,000	125,000	25,000	25.0%
<u>Renewal & Replace - Indirect</u>	<u>16,058</u>	<u>11,789</u>	<u>23,577</u>	<u>23,264</u>	<u>-313</u>	<u>-1.3%</u>
Total Expense	1,453,725	764,599	1,547,830	1,587,055	39,225	2.5%
Current Year Surplus (Deficit)	37,341	10,849	0	0		
Transfer to R&R	-37,341	0	0	0		
<u>Prior Year Surplus</u>	<u>398,772</u>	<u>398,772</u>	<u>440,347</u>	<u>410,962</u>		
Accumulated Surplus	398,772	409,621	440,347	410,962		

Operation Summary

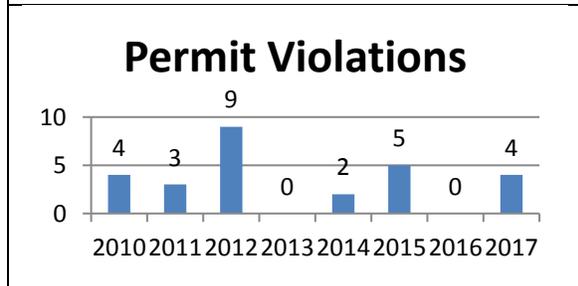
Wastewater Treatment: The Cape Elizabeth Wastewater System is comprised of two general areas, North and South. Flow generated in the Northern area is delivered to South Portland for treatment while flow generated in South Cape is treated at the Cape Elizabeth WWTF. The Cape Elizabeth treatment facility is designed to treat 520,000 gallons per day with a peak capacity of 2.75 mgd during wet weather. PWD owns 715,400 gallons per day of capacity at South Portland’s WWTF. The Cape Elizabeth plant is currently operated in a way that provides some nitrogen removal.

In 2017, the flow in the Northern area averaged 0.410 mgd and the South Cape flow to the treatment plant averaged 0.27 mgd.



Effluent Permit Requirements:

Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 93% of the BOD; well above the required 85% removal.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater; also the strength of pollution. The treatment plant removed 94% of the TSS, well above the required 85% removal.
Total Residual Chlorine	Used for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times. The planned UV disinfection upgrade will eliminate the use of disinfection system chemicals.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.



The Discharge Permit was renewed in late 2016. There were four (4) effluent permit violations in 2017. These violations were associated with the performance of the disinfection system.

Operation Summary (continued)

Wastewater Conveyance – interceptors and pumping stations: The Draft Ottawa Road CSO Long Term Control Plan was submitted to Maine Department of Environmental Protection in December 2011 and was approved in September 2013. The 5-year plan began in 2014. The plan's projects are expected to lower the frequency and volume of overflow during extreme wet weather events by addressing private sources of infiltration and inflow in the collection systems of Cape Elizabeth and South Portland. Both the Town of Cape Elizabeth and the City of South Portland have completed an inventory of private sources of inflow & infiltration. Cape Elizabeth is currently working to install additional storm drainage to accommodate possible redirected private sources of I/I to the storm sewer system and has addressed 35 of 37 known sources of private I/I in 2018. South Portland is currently working to address 10 private sources of I/I and is lining its collection system pipe in the area to reduce infiltration and is expected to complete the project in 2018. Flow monitoring over the next 6 to 12 months will be completed to determine the actual reductions achieved by Cape Elizabeth and South Portland.

PWD staff continues to respond and maintain service during various storm events and power failures, while we work to install emergency generators through our Capital Improvement process. This will assist in managing elevated flows during wet weather and often associated power losses. Additional work performed by the Systems group is shown in the table below:

Parameter	2018 Actual to September	2019 Projected
Preventive Work Orders	301	350
Corrective Work Orders	22	40
Wet wells cleaned	35	40
Debris removed (ton)	40.15	40
Dry Weather Overflows	2	0

2018 Other Highlights

- Asset Management Software continues to drive the preventive maintenance program; generating both monthly and annual preventive maintenance tasks for all pump stations, continuing our emphasis on the pump station preventive maintenance program.
- All the equipment at the treatment plant was reviewed and the information in the asset management system was updated.
- Operations staff has begun the long task of reviewing the preventive work schedule and the creation of additional preventive work orders. The addition of a Maintenance Manager Position in 2018 will focus resources on continuing this work.
- For the second summer, weekend sampling during the chlorination/disinfection season is now handled by staff from the East End WWTF. This required sampling is expected to be eliminated by the installation of the UV disinfection system since chlorine chemicals will no longer be added or monitored.

2019 Work Plan

- Both the Town of Cape Elizabeth and the City of South Portland will have eliminated nearly all known sources of private I/I by the end of 2018. Flow monitoring will continue to determine how much wet weather I/I has been removed by these efforts. This monitoring will help determine future efforts that may be required.
- Design of the Little John (Family Field) Pump Station will begin in 2018. This station serves the entire Northern Cape Elizabeth Area.
- The Rotary Drum thickener, which helps to waste solids from the plant, will be rehabilitated in 2019.
- The new UV disinfection system will be operational by May 2019. The UV system will likely address many of the issues and challenges associated with the needed upgrade of the remote dechlorination system at the Peables Cove Pump Station.
- Design of the Maiden Cove Pump Station and force main replacement will begin in 2019 with Construction in 2020. The site is very limited and construction will be challenging.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

Expenditures by CIP Year:

	<u>2016 - 2017 CIP</u>		<u>2018 CIP</u>	<u>2019 CIP</u>	<u>Total</u>
Projects:					
WW Collection & Pumping					
Maiden Cove PS Upgrades - 3002			\$	15,000	\$ 15,000
Pump Station R&R - 3130			\$	25,000	\$ 25,000
WW Treatment					
Treatment Plant HVAC	\$ 25,000	\$ 250,000			\$ 275,000
Treatment Plant UV Disinfection	\$ 15,000	\$ 860,000			\$ 875,000
RAS/WAS Piping - 3028			\$	50,000	\$ 50,000
Rotary Drum Thickener Rehab - 3029			\$	20,000	\$ 20,000
Treatment Plant R&R - 3129			\$	25,000	\$ 25,000
Total by CIP Year		\$ 1,110,000	\$	135,000	\$ 1,285,000

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue 2019</u>	<u>Bond Issue 2021</u>	<u>Funding Total</u>
Beginning Balance	\$ 183,325			
2018 Contribution	\$ 125,000			
Total R&R Balance Available	\$ 308,325			
Projects:				
WW Collection & Pumping				
Maiden Cove PS Upgrades - 3002			\$ 15,000	\$ 15,000
Pump Station R&R - 3130	\$ 25,000			\$ 25,000
WW Treatment				
Treatment Plant HVAC		\$ 275,000		\$ 275,000
Treatment Plant UV Disinfection		\$ 875,000		\$ 875,000
RAS/WAS Piping - 3028	\$ 50,000			\$ 50,000
Rotary Drum Thickener Rehab - 3029	\$ 20,000			\$ 20,000
Treatment Plant R&R - 3129	\$ 25,000			\$ 25,000
Total	\$ 120,000	\$ 1,150,000	\$ 15,000	\$ 1,285,000
Ending Balance	\$ 188,325			

Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds' assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

Summary

Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Biosolids contract expires in 2021; assumed 5% increase in unit prices.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include HVAC and Ultraviolet Treatment upgrades at the Cape Treatment plant and several pump stations upgrades including stations at Maiden Cove, Algonquin and Stonegate South.

Summary of Projection Impact:

Assessment is projected to increase to \$1,907,000 in 2023, a 21% increase over 2019 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance meets the 25% target balance. Capital R&R balance improves but is projected to be approximately \$500,000 below target.

Reserve Fund Balances



Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023
15%	15%	19%	21%	21%	21%

Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023
152%	162%	152%	146%	141%	140%

Projections for Rate-Making Purposes (continued)

Operating Fund:

Wastewater Cape Elizabeth	2019	2020	2021	2022	2023
	Budget	Forecast	Forecast	Forecast	Forecast
Revenues:					
Assessment Income	1,572,912	1,705,860	1,821,707	1,871,327	1,907,124
Interest Income	14,143	16,972	16,972	16,972	16,972
Total Revenues	1,587,055	1,722,832	1,838,679	1,888,299	1,924,096
Operating Expenses:					
Salaries & Wages	189,339	195,019	200,870	206,896	213,103
Employee Benefits	88,358	92,776	97,415	102,286	107,400
Biosolids Disposal	20,500	21,115	22,171	22,836	23,521
Chemicals	10,420	10,733	11,055	11,387	11,729
Contracted Services	273,835	282,050	290,512	299,227	308,204
Heat/Fuel Oil	14,776	15,219	15,676	16,146	16,630
Insurance	4,317	4,447	4,580	4,717	4,859
Materials & Supplies	40,510	41,725	42,977	44,266	45,594
Other Expense	4,150	4,275	4,403	4,535	4,671
Purchased Power	72,969	75,158	77,413	79,735	82,127
Tele/Other Utilities	15,778	16,251	16,739	17,241	17,758
Transportation	38,476	39,630	40,819	42,044	43,305
SS - Administration	185,908	192,415	201,950	209,018	216,334
SS - Engineering Services	77,290	79,995	82,795	85,693	88,692
SS - Environmental Services	28,215	29,203	30,225	31,283	32,378
SS - Wastewater Services	130,654	135,227	139,960	144,859	149,929
SS - Water Services	2,785	4,652	4,815	4,984	5,158
	1,198,280	1,239,890	1,284,375	1,327,153	1,371,392
Debt Service	240,511	317,678	380,040	397,882	394,440
Renewal & Replacement - Direct	125,000	125,000	125,000	125,000	125,000
Renewal & Replace - Indirect	23,264	23,264	23,264	23,264	23,264
Capital Finance Expense	388,775	465,942	528,304	546,146	542,704
Total Operating Expenses	1,587,055	1,705,832	1,812,679	1,873,299	1,914,096
Current Year Surplus(Deficit)	0	17,000	26,000	15,000	10,000
Prior Year Surplus	410,962	410,962	427,962	453,962	468,962
Accumulated Surplus	410,962	427,962	453,962	468,962	478,962
Target Balance(25% of budget)	396,764	426,458	453,170	468,325	478,524
Above/(Below)	14,198	1,504	792	637	438

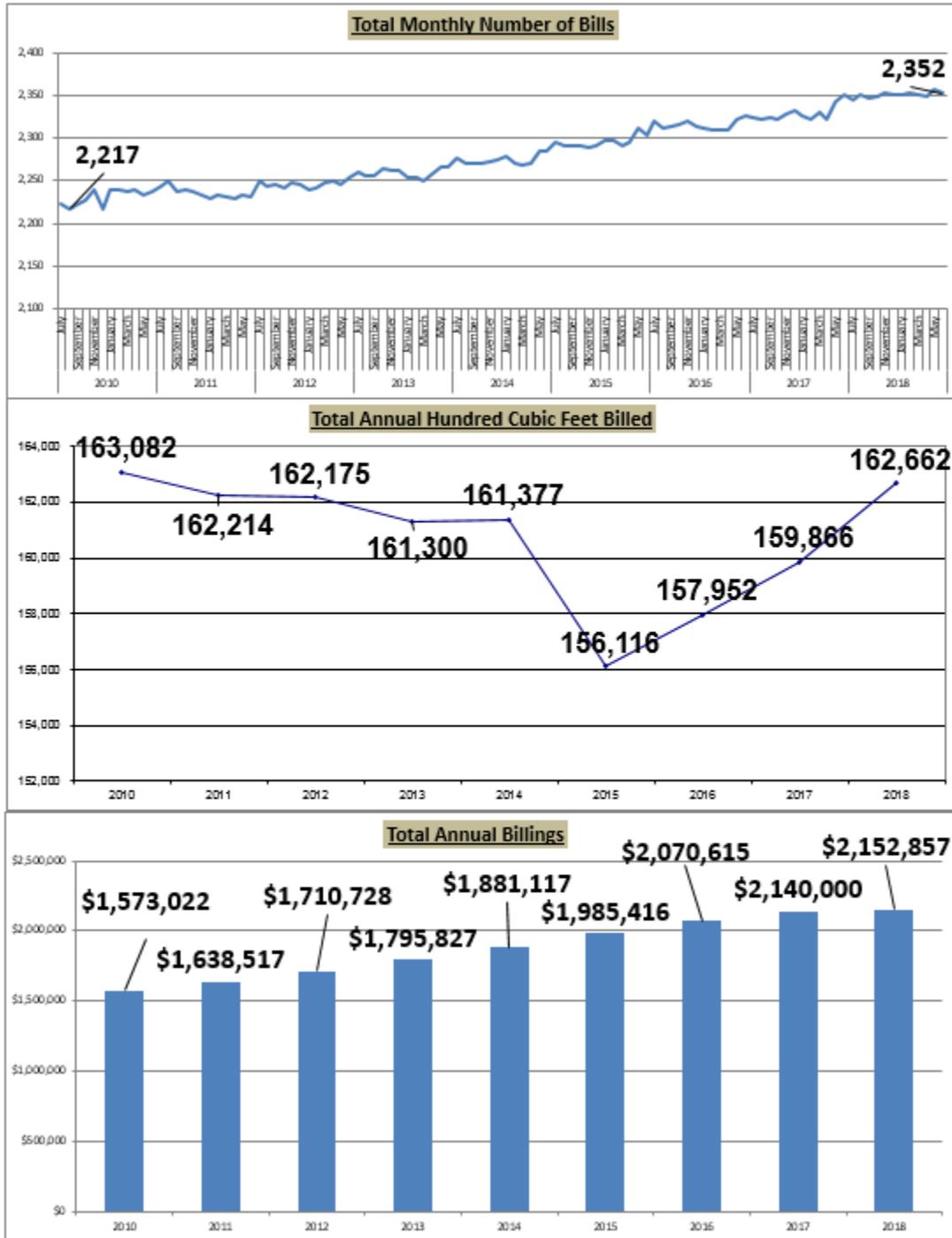
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$815,000

Column1	2019	2020	2021	2022	2023
	Budget	Forecast	Forecast	Forecast	Forecast
R&R Balance BOY	\$ 183,325	\$ 188,325	\$ 213,325	\$ 288,325	\$ 263,325
Contribution	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
Withdrawals	\$ (120,000)	\$ (100,000)	\$ (50,000)	\$ (150,000)	\$ (140,000)
R&R Balance EOY	\$ 188,325	\$ 213,325	\$ 288,325	\$ 263,325	\$ 248,325

Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

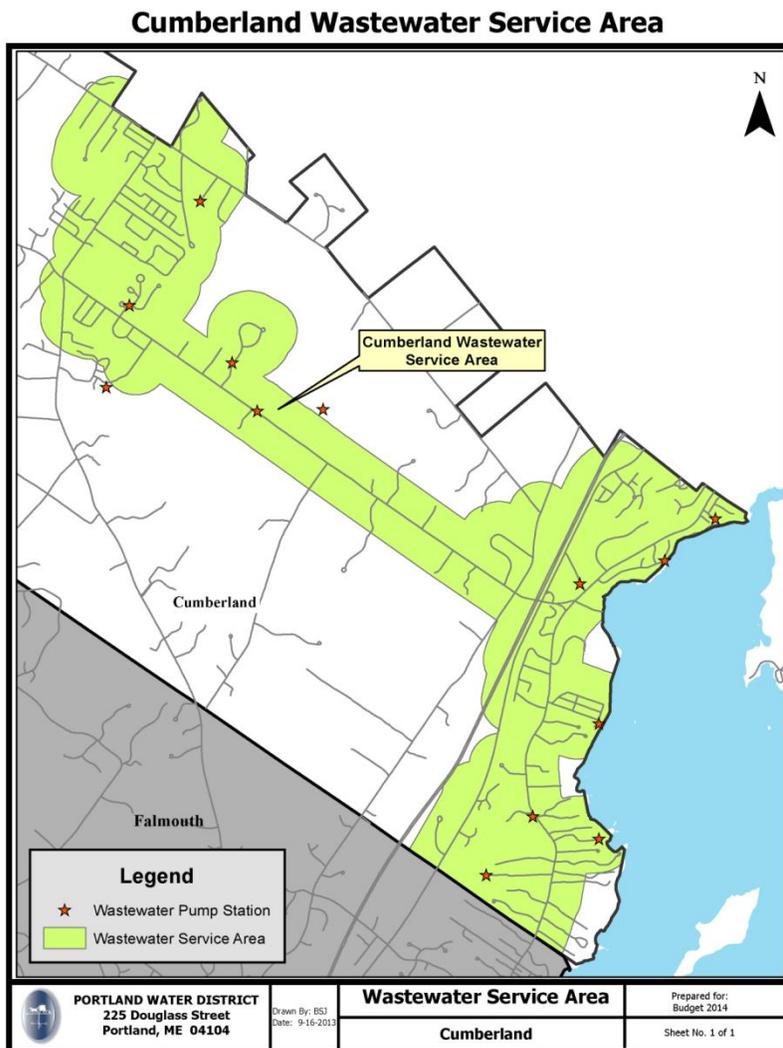
By Municipal Fiscal Year: July 1 to June 30



Fund: Wastewater - Cumberland

Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system and interceptors service to the town. By contract with the town, the District additionally operates and maintains the collectors in the sewer collection system. The District contracts with the Town of Falmouth to provide treatment services. Additionally, by contract, the District provides utility billing services.



Summary of Services Provided:

Treatment
0.235 million
gallons/day

Collection System:
13 Pump Stations with
29.2 miles of pipe

Utility Billing Services:
Annual Billings of
\$1,040,186 on 1,185
Customers (avg.
\$73.15/month)

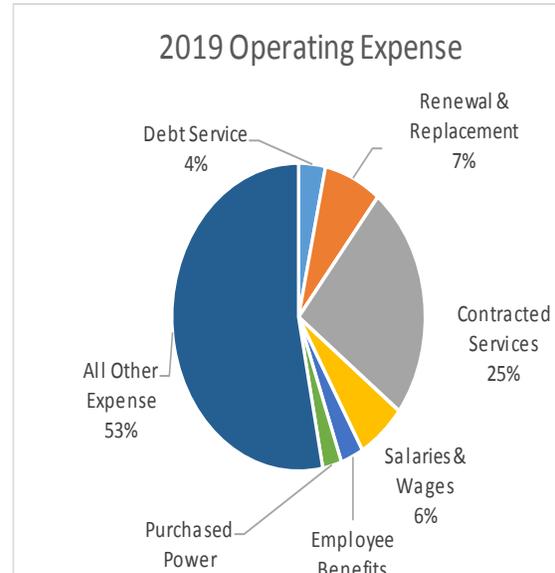
Fund: Wastewater - Cumberland

2019 Financial Summary

The proposed assessment of \$905,364 is the same as the previous year.

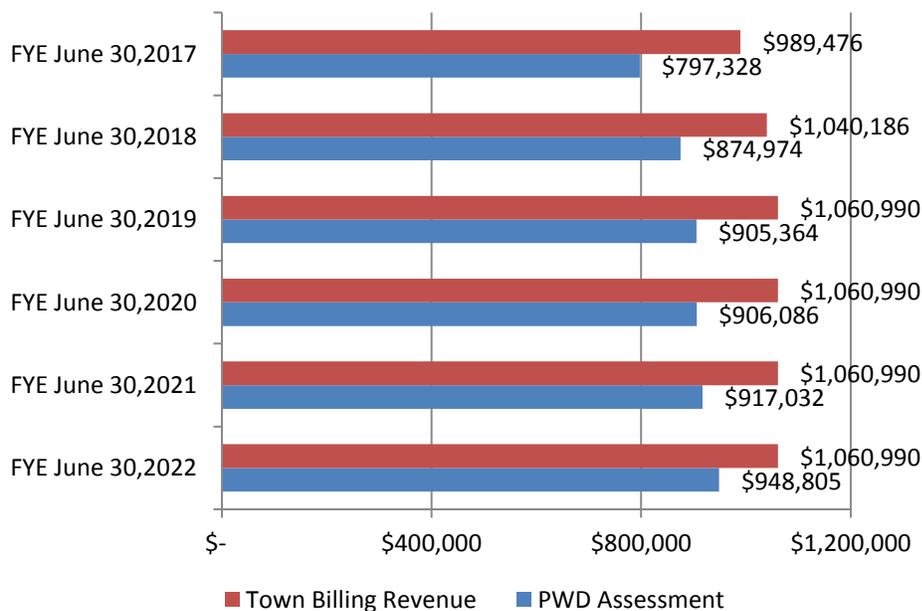
The proposed 2019 Operating Expense and Capital budgets are \$915,344 and \$152,650, respectively. The Operating Expense budget decreased \$34,698 or 3.7% due to a reduction in the renewal & replacement costs (\$17,848) as well as lower costs in salaries & wages (\$5,290) and employee benefits (\$4,237).

The SCADA Radio Modem Replacement Project will go into phase 2 in 2019. This project includes 14 Cumberland pump stations and is the primary focus for Cumberland’s 2019 Capital plan.



Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the cash as collected by the District for sewer billings on their behalf and the District’s assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines if there are adjustments to sewer billing rates.



Revenue Assumptions:	
-	Consumption is the 12 months ending June 30, 2018
-	Rates Assumed:
Effective Date:	Base/Per HCF
Jul 2013	\$34.25/\$4.96
Sep 2013	\$34.25/\$5.29
Sep 2015	\$35.58/\$5.29
Sep 2016	\$36.92/\$5.29
Sep 2018	\$36.92/\$5.52

2019 Operating Expense Highlights

Salaries/Wages – This expense is budgeted to decrease 8.6% or \$5,290 to \$56,496. The labor hours for this fund decreased 12.4% (298 hours) mostly in the Wastewater Systems area.

Employee Benefits – The benefit rate (including FICA) decreased from 53.4% in 2018 to 50.51% in 2019. Overall, Employee Benefits expense decreased 13.7% (\$4,237).

Contracted Services – This category includes payments to the Town of Falmouth for wastewater treatment and pumping services. Overall Contracted Services increased 0.3% (\$736) to a total of \$225,685. The portion of that amount applicable to the Town of Falmouth is \$191,633.

Purchased Power – Overall the budget decreased \$1,999 (8.2%). Supply rates declined from those in the previous budget, and on peak demand usage and demand rates went down as well.

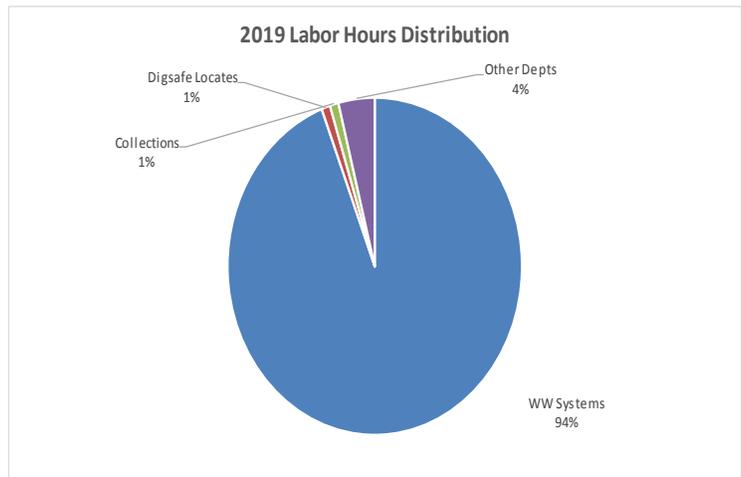
Telephone/Other Utilities – The 2019 Budget includes sewer charges previously not charged in prior budgets and aligns the budget with prior actual expenses. That impact is the primary reason for the \$878 (71.6%) increase for this item.

Transportation – Transportation costs decreased by 4.8% (\$1,010). The decrease is related to the corresponding reduction in labor hours.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service, billing or computer support) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$4,789 or 2.9%.

Debt Service – Debt service expense decreased 2.6% (\$8,445) due to the retirement of older debt issues.

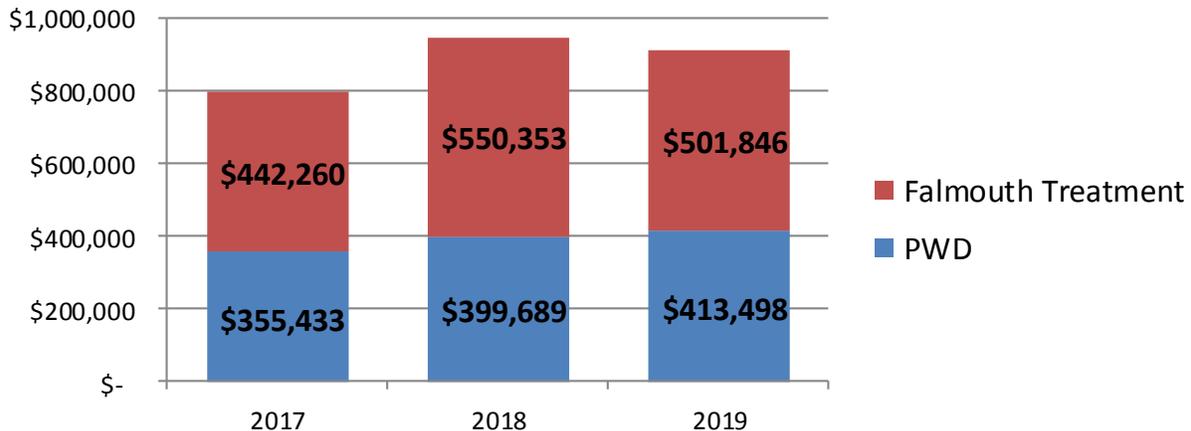
Renewal and Replacement – This is the annual contribution to a fund to finance smaller capital projects. A contribution of \$54,700 (\$38,700 for Cumberland only and \$16,000 for Falmouth assets utilized) will be made in 2019. This is a decrease from 2018 and is related to the completion of the Route 1 project.



	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$844,584	\$452,862	\$905,364	905,364	\$0	0.0%
Interest Income	5,632	3,894	6,768	9,980	3,212	47.5%
<u>FEMA Reimbursement</u>	<u>8,298</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>n/a</u>
Total Revenue	858,514	456,756	912,132	915,344	3,212	0.4%
Salaries & Wages	55,042	34,788	61,786	56,496	-5,290	-8.6%
Employee Benefits	28,751	17,761	30,829	26,592	-4,237	-13.7%
Contracted Services	210,398	103,464	224,949	225,685	736	0.3%
Heat/Fuel Oil	31	0	332	332	0	0.0%
Insurance	2,858	2,526	3,114	842	-2,272	-73.0%
Materials & Supplies	5,960	5,922	7,850	7,850	0	0.0%
Other Expense	50	0	0	0	0	n/a
Purchased Power	26,382	18,121	24,247	22,248	-1,999	-8.2%
Tele/Other Utilities	1,891	944	1,226	2,104	878	71.6%
Transportation	19,175	15,749	21,230	20,220	-1,010	-4.8%
SS - Administration	88,655	49,204	101,716	104,934	3,218	3.2%
SS - Engineering Services	19,013	10,602	33,816	34,063	247	0.7%
SS - Wastewater Services	25,973	15,471	29,880	31,261	1,381	4.6%
<u>SS - Water Services</u>	<u>824</u>	<u>498</u>	<u>1,592</u>	<u>1,535</u>	<u>-57</u>	<u>-3.6%</u>
Operating Expense	485,003	275,050	542,567	534,162	-8,405	-1.5%
Debt Service	284,694	161,107	322,518	314,073	-8,445	-2.6%
Renewal & Replacement - Direct	19,628	36,269	72,538	54,700	-17,838	-24.6%
<u>Renewal & Replace - Indirect</u>	<u>8,365</u>	<u>6,207</u>	<u>12,419</u>	<u>12,409</u>	<u>-10</u>	<u>-0.1%</u>
Total Expense	797,690	478,633	950,042	915,344	-34,698	-3.7%
Current Year Surplus (Deficit)	60,824	-21,877	-37,910	0		
Transfer to R&R	-60,824	0	0	0		
Prior Year Surplus	328,678	328,678	360,053	279,915		
Accumulated Surplus	328,678	306,801	322,143	279,915		

Contracted Services – Treatment Services from Town of Falmouth

A significant portion of Cumberland's total expense involves the treatment services provided by the Town of Falmouth:



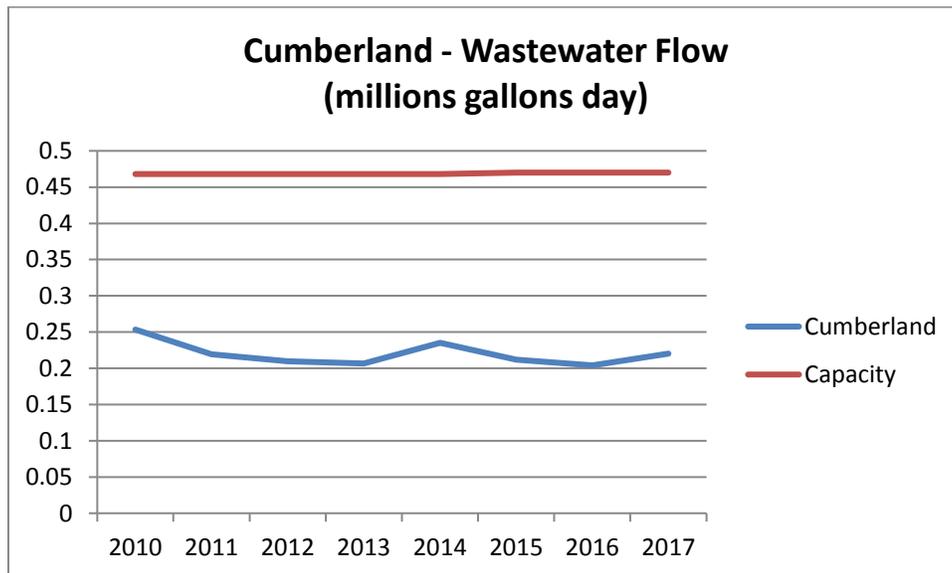
Operation Summary

Wastewater Treatment: The wastewater generated in the Town of Cumberland is collected and pumped to the Falmouth Wastewater Treatment Facility (FWWTF). PWD, on behalf of Cumberland, owns 30% of the Falmouth Plant’s design capacity, or 468,000 gallons per day. The town is billed for operating costs based on the ratio of Cumberland flow to the total flow processed at the Falmouth facility. The table below illustrates Cumberland’s flow contribution to the Falmouth plant.

Year	Cumberland Flow	Falmouth WWTF Flow	% Cumberland Flow
2017	0.22 mgd	0.91 mgd	24%

FWWTF Capacity	Cumberland Cap (30%)	% Capacity Used	Capacity Remaining
1.56 mgd	0.468 mgd	47%	0.25 mgd

The flows from the Cumberland system increased slightly from 2016, with Cumberland again using less than half of the allotted capacity in the Falmouth Plant.



Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2018 Actual to Sept	2019 Projected
Preventive Work Orders	216	200
Corrective Work Orders	13	15
Wet wells cleaned	30	40
Debris removed (tons)	54	40
Dry Weather Overflows	0	0

Operation Summary (continued)

2018 Other Highlights

- All pump stations are monitored 24/7 with our SCADA system and dispatch service. Operations staff will continue to visit each station on a weekly basis.
- The Asset Management Program continues to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.
- A flow meter was installed on Route 1. Along with the Route 88 meter, this meters measures all flows to the Falmouth system. These flow monitors have increased the accuracy of flows sent to Falmouth and have aided in the sizing of pump stations, such as the Mill Creek Pump Station.

2019 Work Plan

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.
- The Cumberland radio network enabling SCADA communication (control system) will be upgraded to replace the legacy system.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

Expenditures by CIP Year:

	<u>2019</u>	<u>Total</u>
Projects:		
SCADA & Technology		
SCADA Radio Modem Replacement - 3126 (prorated)	\$ 132,650	\$ 132,650
WW Collection & Pumping		
Pump Station R&R - 3136	\$ 20,000	\$ 20,000
Total by CIP Year	<u>\$ 152,650</u>	<u>\$ 152,650</u>

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue 2019</u>	<u>Funding Total</u>
Beginning Balance	\$ 284,624		
2019 Contribution	\$ 54,700		
Total R&R Balance Available	<u>\$ 339,324</u>		
Projects:			
SCADA & Technology			
SCADA Radio Modem Replacement - 3126	\$ 132,650		\$ 132,650
WW Collection & Pumping			
Pump Station R&R - 3136	\$ 20,000		\$ 20,000
Total	<u>\$ 152,650</u>		<u>\$ 152,650</u>
Ending Balance	<u>\$ 186,674</u>		

Prorated Projects: Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity. In the case of the SCADA radio modem replacement project, the proration is based on there being 14 Cumberland pump stations out of the 37 total pump stations that are planned to have work done in 2019.

Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds' assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on the next page.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include upgrading 7 pump stations in 2021.

Summary of Projection Impact:

Assessment is projected to increase to \$986,000 in 2023, a 9% increase over 2019 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance meets the 25% target balance. Capital R&R balance improves but is projected to be approximately \$110,000 below target.

Reserve Fund Balances



Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023
34%	34%	34%	33%	34%	33%

Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023
115%	121%	117%	117%	116%	116%

Projections for Rate-Making Purposes (continued)

Operating Fund:

Wastewater Cumberland	2019	2020	2021	2022	2023
	Budget	Forecast	Forecast	Forecast	Forecast
Revenues:					
Water Sales					
Assessment Income	905,364	906,807	927,257	970,353	986,377
Interest Income	9,980	11,976	11,976	11,976	11,976
Total Revenues	915,344	918,783	939,233	982,329	998,353
Operating Expenses:					
Salaries & Wages	56,496	58,191	59,937	61,735	63,587
Employee Benefits	26,592	27,922	29,318	30,784	32,323
Contracted Services	225,685	232,456	239,430	246,613	254,011
Heat/Fuel Oil	332	342	352	363	374
Insurance	842	3,367	3,468	3,572	3,679
Materials & Supplies	7,850	8,086	8,329	8,579	8,836
Purchased Power	22,248	22,915	23,602	24,310	25,039
Tele/Other Utilities	2,104	2,167	2,232	2,299	2,368
Transportation	20,220	20,827	21,452	22,096	22,759
SS - Administration	104,934	108,607	113,908	117,895	122,021
SS - Engineering Services	34,063	35,255	36,489	37,766	39,088
SS - Wastewater Services	31,261	32,355	33,487	34,659	35,872
SS - Water Services	1,535	2,499	2,586	2,677	2,771
	534,162	554,989	574,590	593,348	612,728
Debt Service	314,073	311,375	312,224	336,562	333,206
Renewal & Replacement - Direct	54,700	40,000	40,000	40,000	40,000
Renewal & Replace - Indirect	12,409	12,419	12,419	12,419	12,419
Capital Finance Expense	381,182	363,794	364,643	388,981	385,625
Total Operating Expenses	915,344	918,783	939,233	982,329	998,353
Current Year Surplus(Deficit)	0	0	0	0	0
Prior Year Surplus	279,915	279,915	279,915	279,915	279,915
Accumulated Surplus	279,915	279,915	279,915	279,915	279,915
Target Balance(25% of budget)	228,836	229,696	234,808	245,582	249,588

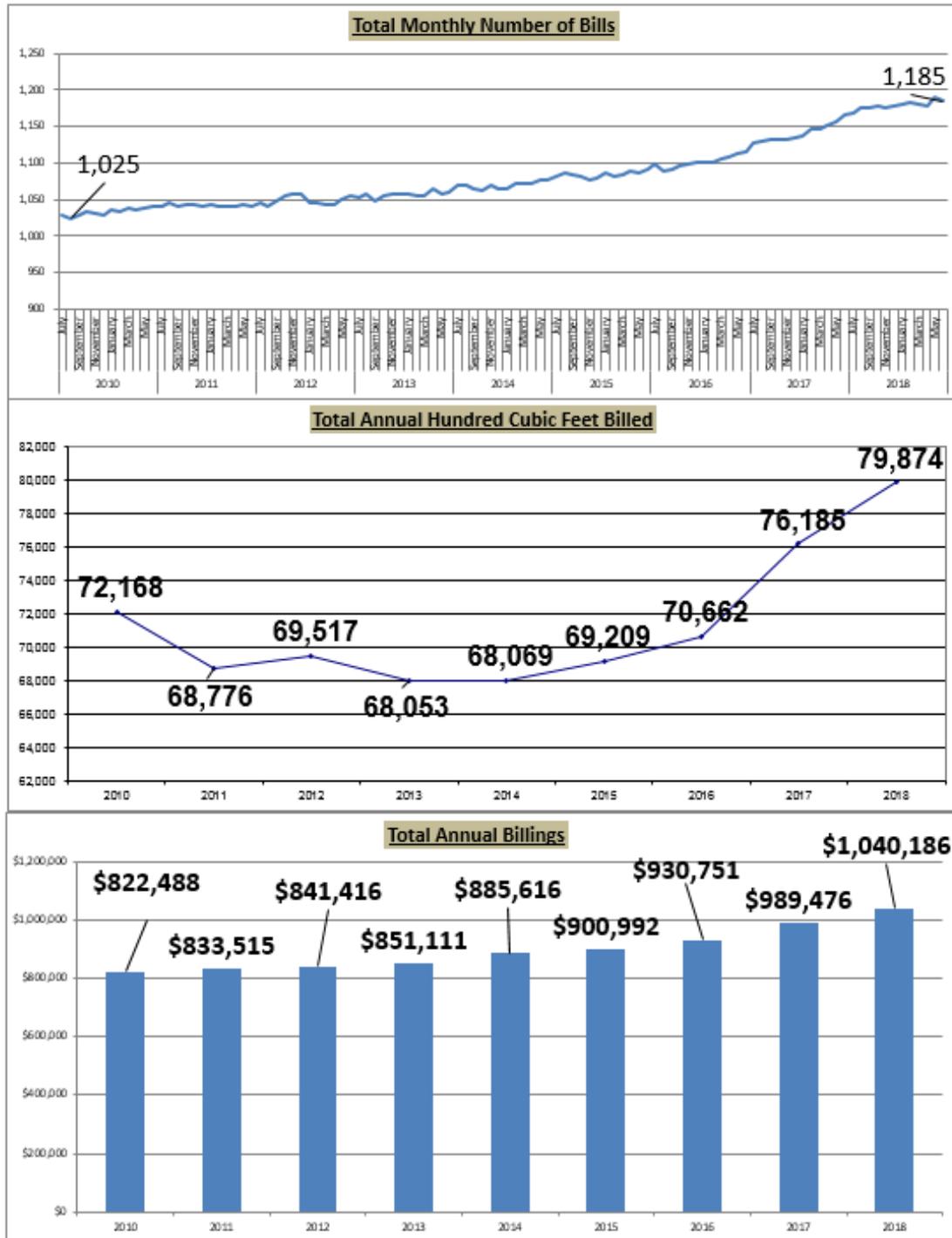
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$389,000

	2019	2020	2021	2022	2023
	Budget	Forecast	Forecast	Forecast	Forecast
R&R Balance BOY	\$ 284,624	\$ 186,674	\$ 206,674	\$ 131,674	\$ 151,674
Contribution	\$ 54,700	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000
Withdrawals	\$ (152,650)	\$ (20,000)	\$ (115,000)	\$ (20,000)	\$ (20,000)
R&R Balance EOY	\$ 186,674	\$ 206,674	\$ 131,674	\$ 151,674	\$ 171,674

Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

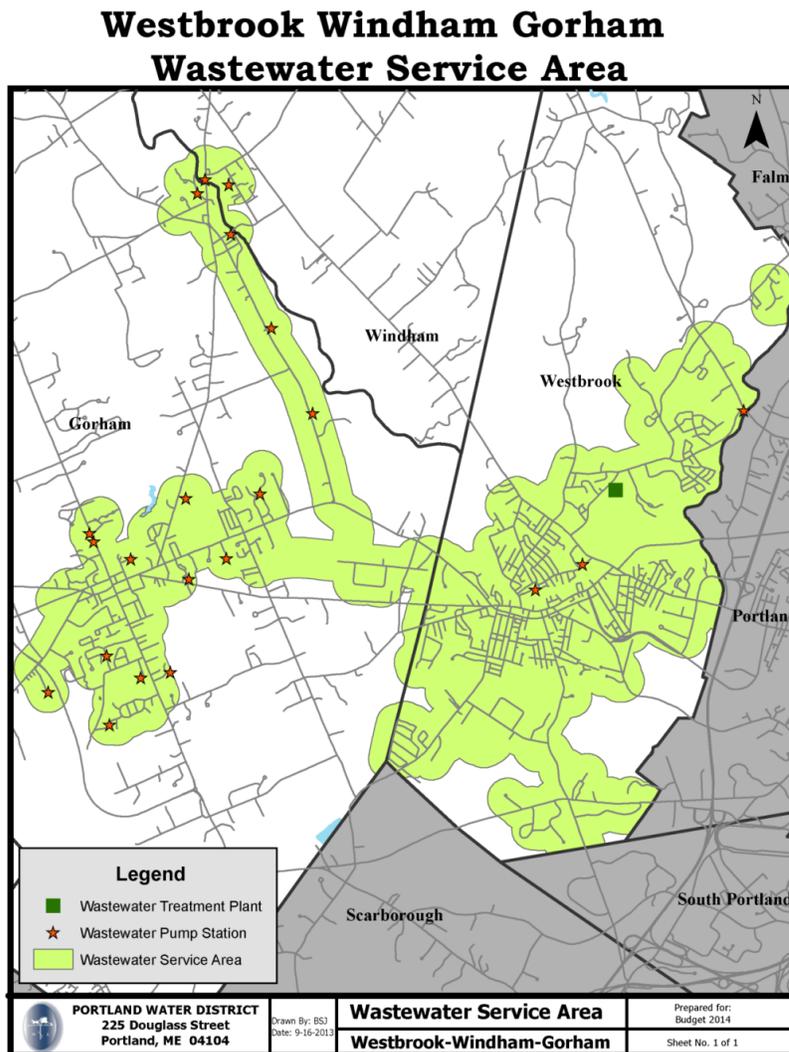
By Municipal Fiscal Year: July 1 to June 30



Fund: Wastewater - Gorham

Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system-interceptors service to the town. By contract with the town, the District additionally operates and maintains the collectors in the sewer collection system. Gorham's wastewater is treated at the treatment facility located in Westbrook and jointly used by the Town of Windham and City of Westbrook. Additionally, by contract, the District provides utility billing services.



Summary of Services Provided:

Treatment

0.471 million
gallons/day

Collection System

14 Gorham only & 3
Joint use Pump
Stations with 33.7
miles of pipe

Utility Billing

Annual Billings of
\$1,171,101 on 1,854
Customers (avg.
\$52.64/month)

Fund: Wastewater - Gorham

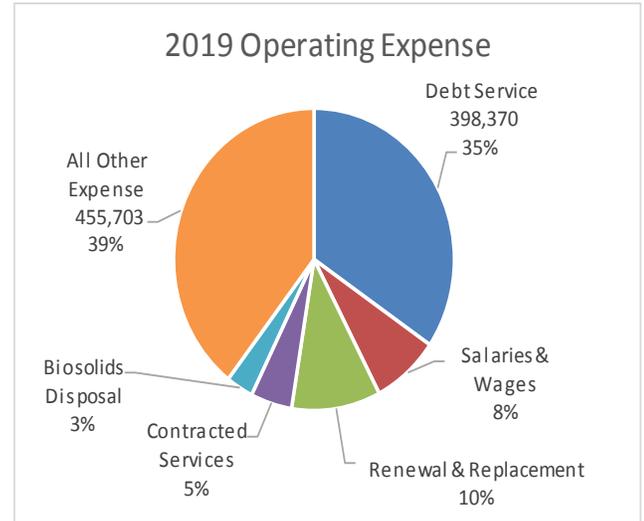
2019 Financial Summary

The proposed assessment is \$1,133,436; this is a 2.5% increase over the prior year and was better than the forecasted assessment provided to the town last year.

The proposed 2019 Operating Expense and Capital budgets are \$1,152,954 and \$719,230, respectively.

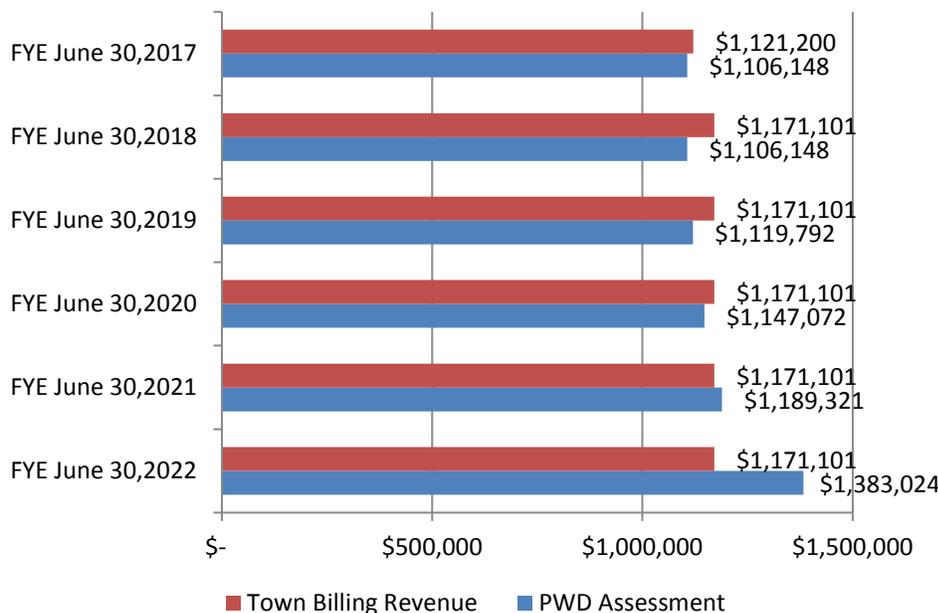
The Operating Expense budget increase is \$16,176 or 1.4%. Much of the Fund's expense comes from joint use facilities with Westbrook and Windham. Gorham's percentage of the wastewater flows were lower in this budget than the prior year thus minimizing any expense increases from those facilities.

The major Capital projects are the Aeration & Clarifier design and Odor Control upgrades at the joint Westbrook Treatment Plant.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is December 31. The chart below compares the cash as collected by the District for sewer billings on their behalf and the District's assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines whether or not to increase the sewer billing rates.



Revenue Assumptions:

- Consumption is the 12 months ending June 30, 2018

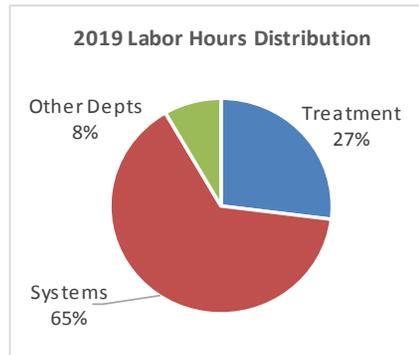
- Rates Assumed:

Effective Date:	Base/Per HCF
Nov 2006	\$13.74/6.29

No change in rates since 11/1/2006.

2019 Operating Expense Highlights

Salaries/Wages – The budget for salaries and wages is related to the labor required to deliver wastewater services. Treatment plant costs are allocated based on flows. The budget increased \$6,251 (7.0%) to \$95,770. The average wage rate increased 3.0% and labor hours increased at the wastewater pump stations located in Gorham.



Employee Benefits – The benefit rate (including FICA) decreased from 53.4% in 2018 to 50.51% in 2019 due to lower pension expenses. Overall, employee benefits expense increased 1.3% (\$576).

Biosolids Disposal – Biosolids expense at the Westbrook Regional WWTF is projected to increase 6.0% due to a 4.3% increase in wet tons disposed and an expected 1.5% increase in the disposal price per wet ton. However, Gorham’s share of allocated treatment costs decreased from 15.75% in 2018 to 13.0% in 2019. The result was a 12.6% (\$5,206) decrease in expense.

Contracted Services – The primary reason for the decrease was delaying CCTV work in the Little Falls area until 2019. Overall, the expense was down \$3,369 (5.8%)

Purchased Power – The budget for power is expected to decrease by 16.1% or \$7,588. This decrease is mainly due to a reduction in supply rates.

Transportation – Transportation expenses decreased \$654 (2.9%) due to greater utilization of the vehicle pool by other funds.

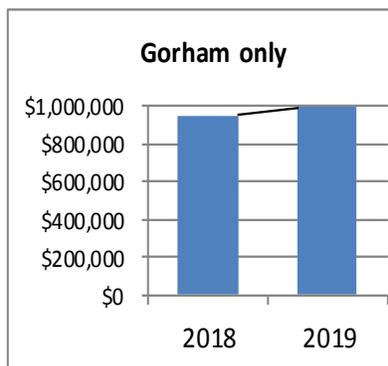
Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$14,661 or 5.2%.

The allocation from Environmental Services increased \$4,234 (21.9%) as the hiring of a full time pretreatment coordinator and the elimination of an environmental scientist position shifted expenses. The costs associated with Wastewater increased \$7,054 (13.4%) due to the addition of an associate engineer position.

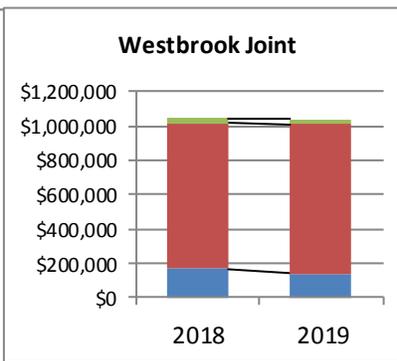
Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This item increased 0.1% (\$439).

Renewal & Replacement - Dollars put aside to fund smaller capital projects. A contribution of \$118,156 will be made in 2019.

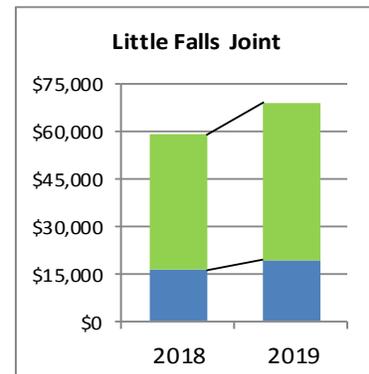
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,106,148	\$553,074	\$1,106,148	\$1,133,436	\$27,288	2.5%
Interest Income	11,445	7,708	13,030	19,518	6,488	49.8%
Other Income	10,945	761	17,600	0	-17,600	-100.0%
FEMA Reimbursement	2,470	0	0	0	0	n/a
Total Revenue	1,131,008	561,543	1,136,778	1,152,954	16,176	1.4%
Salaries & Wages	104,572	50,380	89,519	95,770	6,251	7.0%
Employee Benefits	54,322	24,873	44,993	45,569	576	1.3%
Biosolids Disposal	57,517	31,280	41,435	36,229	-5,206	-12.6%
Chemicals	16,588	9,307	12,074	9,169	-2,905	-24.1%
Contracted Services	65,305	22,732	58,346	54,977	-3,369	-5.8%
Deferred Cost W/O	3,403	0	0	0	0	n/a
Heat/Fuel Oil	5,712	2,591	5,217	5,327	110	2.1%
Insurance	1,590	691	1,674	1,271	-403	-24.1%
Materials & Supplies	21,587	15,805	24,976	26,961	1,985	7.9%
Other Expense	865	747	935	789	-146	-15.6%
Purchased Power	55,906	29,566	47,245	39,657	-7,588	-16.1%
Tele/Other Utilities	2,948	1,918	3,835	2,959	-876	-22.8%
Transportation	24,107	10,770	22,608	21,954	-654	-2.9%
SS - Administration	128,415	65,697	135,785	138,078	2,293	1.7%
SS - Engineering Services	39,935	21,975	70,645	71,809	1,164	1.6%
SS - Environmental Services	19,683	8,403	19,319	23,553	4,234	21.9%
SS - Wastewater Services	66,057	29,181	52,834	59,888	7,054	13.4%
SS - Water Services	1,332	802	2,552	2,468	-84	-3.3%
Operating Expense	669,844	326,718	633,992	636,428	2,436	0.4%
Debt Service	392,432	192,474	397,931	398,370	439	0.1%
Renewal & Replacement - Direct	54,202	43,345	86,690	100,000	13,310	15.4%
Renewal & Replace - Indirect	12,812	9,083	18,165	18,156	-9	0.0%
Total Expense	1,129,290	571,620	1,136,778	1,152,954	16,176	1.4%
Current Year Surplus (Deficit)	1,718	-10,077	0	0		
Transfer to R&R	-1,718	0	0	0		
Prior Year Surplus	310,000	310,000	328,583	310,054		
Accumulated Surplus	310,000	299,923	328,583	310,054		



Gorham Only – Expense up 4.5% or \$42.9k.



Westbrook JT – Expense down 0.8%, Gorham's share of expense reduced (15.75% to 13.0%), net expense down \$30.0k (18.2%).



Little Falls JT – Expense up \$10.4k, Gorham's share of expense was up (27.5% to 28.0%), net expense up \$3.2k (19.7%).

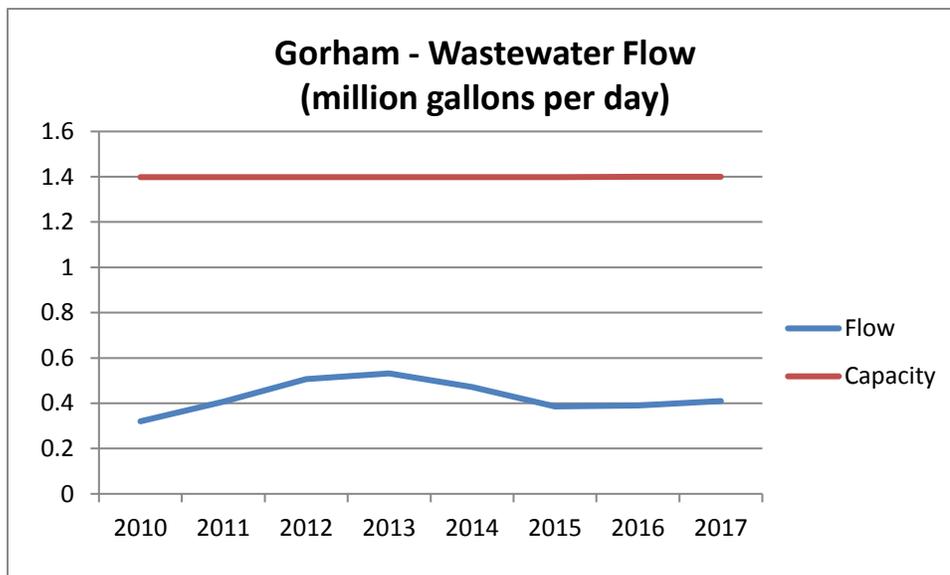
Operation Summary

Wastewater Treatment: All wastewater generated in Gorham is being treated at the Westbrook/ Gorham/Windham Regional WWTF. The table below shows flow from the Gorham and Little Falls section of Gorham to the regional facility. The Town of Gorham shares operational costs at the treatment facility in Westbrook based on the amount of flow the town contributes to the total flow through the treatment facility. Gorham has 30.8% of the treatment facility capacity, or 1,398,320 gallons per day.

Area	2017 Gorham Flow	Westbrook WWTF Flow	% Gorham Flow
Total Gorham Flow	0.41 mgd	3.04 mgd	13%

WGWWTF Capacity	Gorham Capacity (30.8%)	2017 - % Capacity Used	Capacity Remaining
4.54 mgd	1.398 mgd	29%	0.99 mgd

Flow from Gorham remained steady. The Town of Gorham utilized only 29% of the allotted capacity at the treatment plant and has just under 1 million gallons per day of capacity remaining at the treatment plant.



Wastewater Conveyance – interceptors and pumping stations

Parameter	2018 Actual to Sept	2019 Projected
Preventive Work Orders	239	200
Corrective Work Orders	18	20
Wet wells cleaned	31	30
Debris removed (tons)	38.08	35
Dry Weather Overflows	0	0

Operation Summary (continued)

2018 Other Highlights

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- The aeration system at the Westbrook/Gorham/Windham Regional WWTF was evaluated in 2015. Several possible approaches to design of the new system were identified and are dependent on future phosphorus permit limits. The loadings to the treatment facility have increased and are creating some operational challenges. Design of the new system is anticipated in 2019 with construction of the upgraded system currently contemplated for 2021.
- Recognizing the increased loading at the treatment plant and in anticipation of the aeration system upgrade in 2020, acceptance of septage at the plant will cease until after the completion of the aeration upgrade. Septage will be accepted at the East End WWTF in Portland.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis.
- Emergency generators installed at existing pump stations, and the installation of generators as part of new installations have reduced the need to respond to these critical stations during system power failures, improving the level of service to customers.
- The odor control system at the Mallison Falls Pump Station has worked well since it was installed in the summer of 2012. We have received no odor complaints since its installation. We continue to maintain the system and replace the odor removing media on an annual basis.
- The new dewatering system (screw press) at the treatment facility was installed in 2018. As of the writing of this section, start-up and optimization of the new system was underway.

2019 Work Plan

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis.
- The Gorham radio network enabling SCADA communication (control system) will be upgraded to replace the legacy system.
- The Westbrook/Gorham/Windham Regional WWTF will have major work on a number of process areas, including the dewatering conveyance system, odor control for the sludge storage tank and polymer system additions.
- Design of the aeration system upgrade will begin in 2019.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

Expenditures by CIP Year:

	<u>2019</u>	<u>Total</u>
Projects:		
SCADA & Technology		
SCADA Radio Modem Replacement - 3126 (prorated)	\$ 141,750	\$ 141,750
WW Collection & Pumping		
Joint Westbrook Pump Station R&R - 3134 (prorated)	\$ 6,160	\$ 6,160
Gorham Only Pump Station R&R - 3137	\$ 20,000	\$ 20,000
WW Treatment		
<u>Westbrook Treatment Plant</u>		
Dewatered Sludge Cake Discharge - 3001 (prorated)	\$ 30,800	\$ 30,800
Aeration & Clarifier Upgrade Design - 3022 (prorated)	\$ 231,000	\$ 231,000
Sludge Storage Odor Control - 3025 (prorated)	\$ 231,000	\$ 231,000
Redundant Polymer Makedown - 3026 (prorated)	\$ 23,100	\$ 23,100
BFP, Ancillary Wiring & Controls - 3027 (prorated)	\$ 20,020	\$ 20,020
Treatment Plant R&R - 3132 (prorated)	\$ 15,400	\$ 15,400
Total by CIP Year	\$ 719,230	\$ 719,230

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue 2019</u>	<u>Bond Issue 2021</u>	<u>Funding Total</u>
Beginning Balance	\$ 918,664			
2019 Contribution	\$ 100,000			
Total R&R Balance Available	\$ 1,018,664			
Projects:				
SCADA & Technology	\$ 141,750			\$ 141,750
WW Collection & Pumping	\$ 26,160			\$ 26,160
WW Treatment	\$ 89,320	\$ 231,000	\$ 231,000	\$ 551,320
Total	\$ 257,230	\$ 231,000	\$ 231,000	\$ 719,230
Ending Balance	\$ 761,434			

Prorated Projects: Costs of projects done on infrastructure used by multiple communities are ‘prorated’ between the municipalities based on relative design capacity. In the case of the SCADA radio modem replacement project, the proration is based on there being 15 Gorham pump stations out of the 37 total pump stations that are planned to have work done in 2019.

Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds' assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

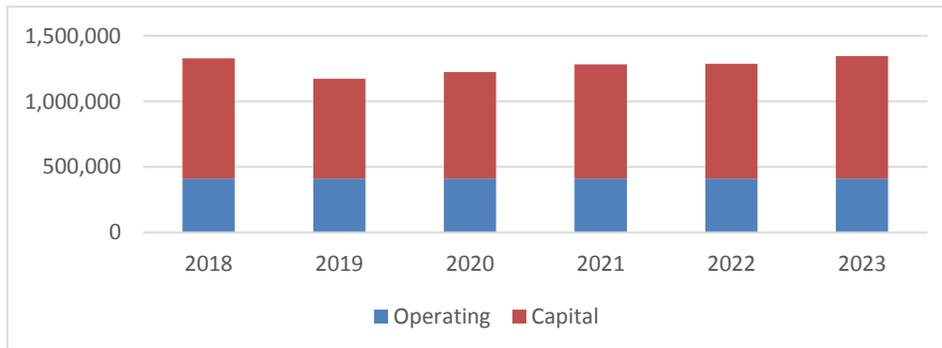
- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Biosolids contract expires in 2021; assumed 5% increase in unit prices.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include an estimated \$10.5M aeration and secondary clarifier project at treatment facility in 2020 and upgrading 4 pump stations in 2022.

Summary of Projection Impact:

Assessment is projected to increase to \$1,627,000 in 2023, a 44% increase over 2019 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance meets the 25% target balance. Capital R&R balance improves but is projected to be approximately \$53,000 above target.

Debt Service as a percent of budget is high due to Gorham's request to connect the Little Falls area to the Westbrook Regional Treatment Plant and significant upcoming upgrades at the treatment plant.

Reserve Fund Balances



Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023
35%	35%	34%	35%	47%	47%

Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023
126%	130%	131%	129%	117%	117%

Projections for Rate-Making Purposes (continued)

Operating Fund:

Wastewater Gorham	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Revenues:					
Assessment Income	1,133,436	1,160,707	1,217,934	1,594,114	1,627,718
Interest Income	19,518	23,422	23,422	23,422	23,422
Total Revenues	1,152,954	1,184,129	1,241,356	1,617,536	1,651,140
Operating Expenses:					
Salaries & Wages	95,770	98,643	101,602	104,650	107,790
Employee Benefits	45,569	47,847	50,239	52,751	55,389
Biosolids Disposal	36,229	37,316	39,182	40,357	41,568
Chemicals	9,169	9,444	9,727	10,019	10,320
Contracted Services	54,977	56,626	58,325	60,075	61,877
Heat/Fuel Oil	5,327	5,487	5,652	5,822	5,997
Insurance	1,271	1,309	1,348	1,388	1,430
Materials & Supplies	26,961	27,770	28,603	29,461	30,345
Other Expense	789	813	837	862	888
Purchased Power	39,657	40,847	42,072	43,334	44,634
Tele/Other Utilities	2,959	3,048	3,139	3,233	3,330
Transportation	21,954	22,613	23,291	23,990	24,710
SS - Administration	138,078	142,911	152,863	158,213	163,750
SS - Engineering Services	71,809	74,322	76,923	79,615	82,402
SS - Environmental Services	23,553	24,377	25,230	26,113	27,027
SS - Wastewater Services	59,888	61,984	64,153	66,398	68,722
SS - Water Services	2,468	4,094	4,237	4,385	4,538
	636,428	659,451	687,423	710,666	734,717
Debt Service	398,370	401,101	430,356	737,293	746,846
Renewal & Replacement - Dire	100,000	100,000	100,000	100,000	100,000
Renewal & Replace - Indirect	18,156	23,577	23,577	23,577	23,577
Capital Finance Expense	516,526	524,678	553,933	860,870	870,423
Total Operating Expenses	1,152,954	1,184,129	1,241,356	1,571,536	1,605,140
Current Year Surplus(Deficit)	0	0	0	46,000	46,000
Prior Year Surplus	310,054	310,054	310,054	310,054	356,054
Accumulated Surplus	310,054	310,054	310,054	356,054	402,054
Target Balance(25% of budget)	288,239	296,032	310,339	392,884	401,285
Above/(Below)	21,815	14,022	-285	-36,830	769

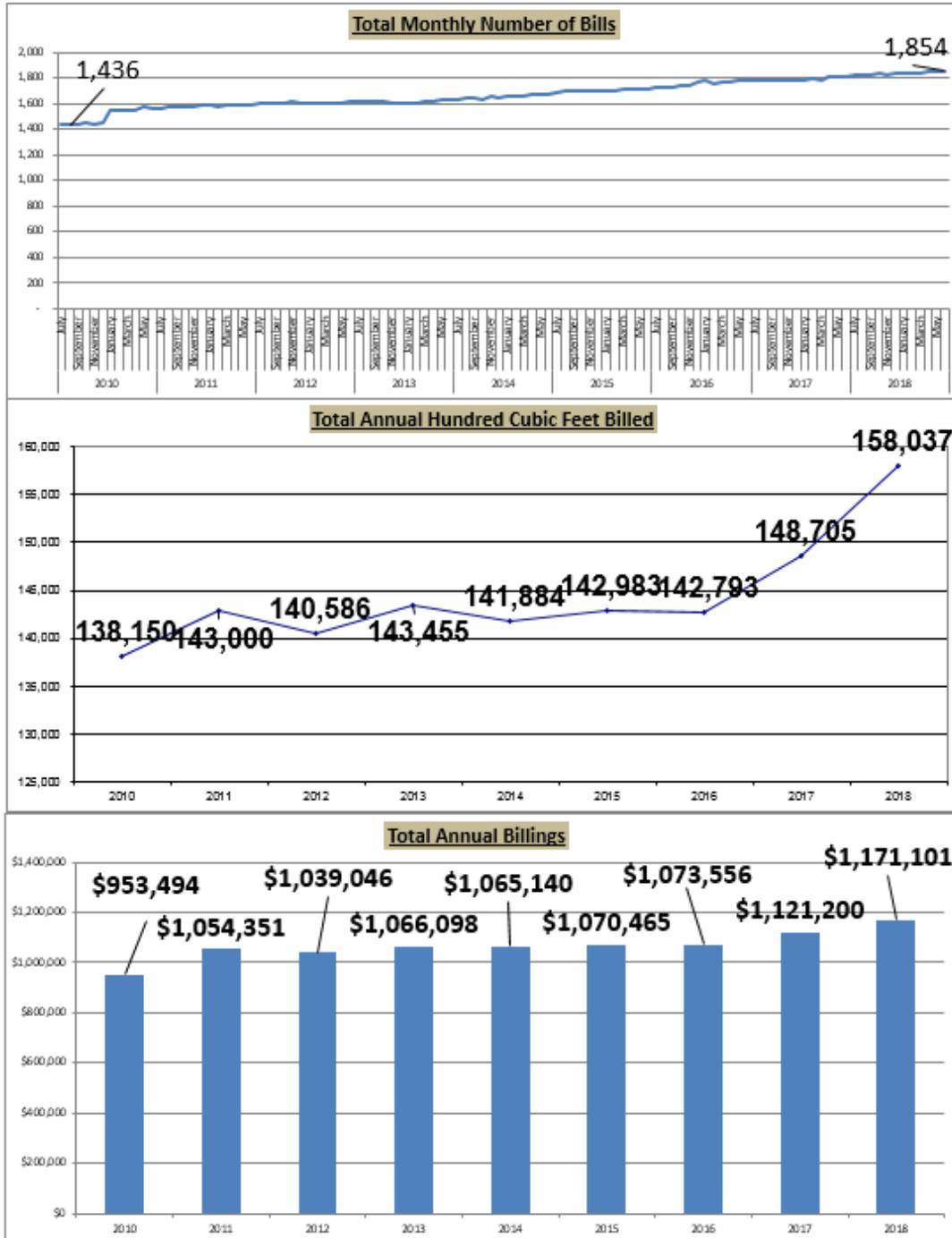
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$882,000

	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
R&R Balance BOY	\$ 918,664	\$ 761,434	\$ 813,714	\$ 872,154	\$ 876,694
Contribution	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Withdrawals	\$ (257,230)	\$ (47,720)	\$ (41,560)	\$ (95,460)	\$ (41,560)
R&R Balance EOY	\$ 761,434	\$ 813,714	\$ 872,154	\$ 876,694	\$ 935,134

Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

By Municipal Fiscal Year: July 1 to June 30

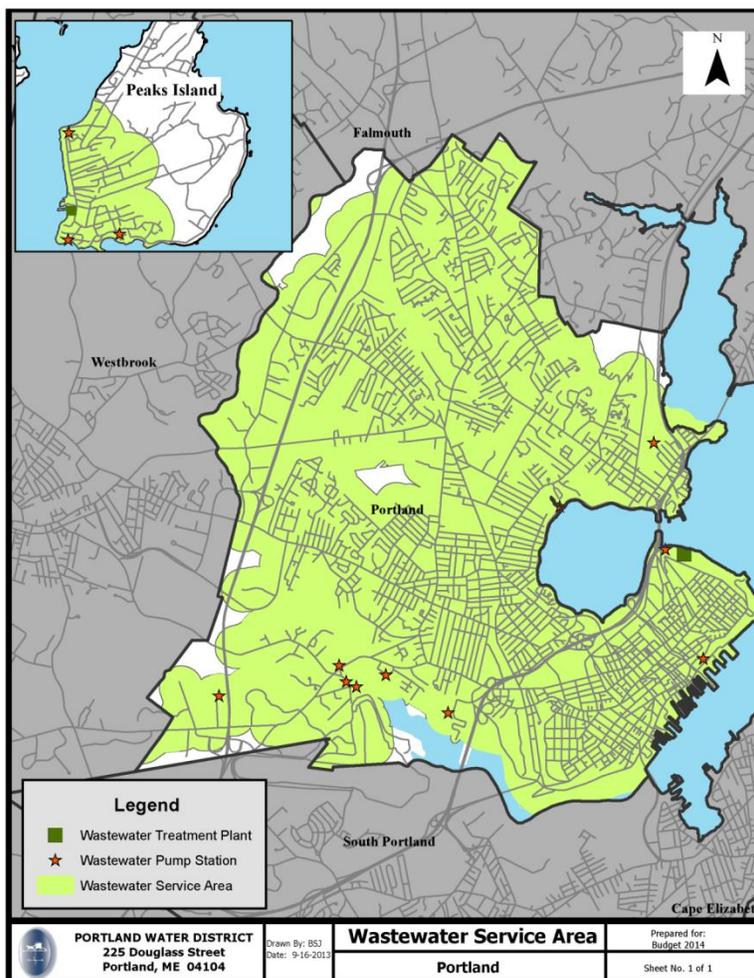


Fund: Wastewater - Portland

Background

The Portland Water District's charter authorizes the District to provide wastewater treatment, collection system and interception services to the city. By contract with the city, the District additionally provides Peaks Island's collection system-collector and storm water system services. The city maintains the mainland's collection system- collectors that transport wastewater from user's property to the District's interceptors. Additionally, by contract, the District provides utility billing services.

Portland Wastewater Service Area



Summary of Services

Provided:

Treatment

Mainland: 18.07 million gallons/day

Peaks Island: 0.104 million gallons/day

Collection System

14 Pump Stations with
23.5 miles of pipe

Storm Water system

Peaks Island with 1.9 miles of pipe

Utility Billing

Annual Billings of
\$24,352,333 on 17,114
Customers (avg.
\$118.58/month)

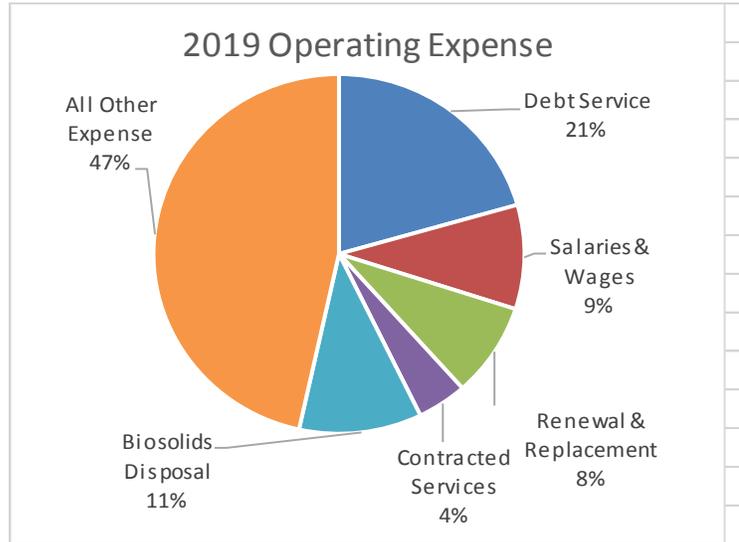
Fund: Wastewater - Portland

2019 Financial Summary

The city’s assessment will increase 3.0% or \$367,656 to \$12,616,080. The assessment is less than the forecasted assessment provided to the city last year.

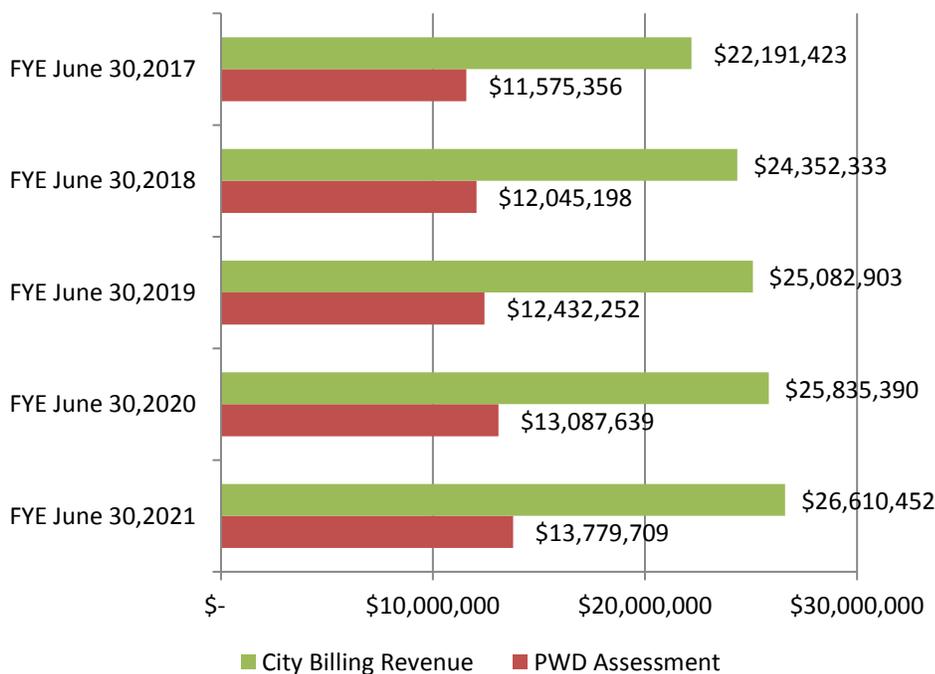
The proposed 2019 Operating Expense and Capital budgets are \$12,862,619 and \$6,394,450, respectively.

The Operating Expense budget is \$444,588, or 3.6%, higher than the previous year. Departmental expense increased by 2.1% or \$189,372. Debt service increased \$74,999 (2.9%) and renewal & replacement (direct and indirect) will increase \$180,217 to \$1,087,167.



Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the sewer billing cash as collected by the District on their behalf and the District’s assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines whether or not to increase the sewer billing rates.



Revenue Assumptions:

- Consumption is the 12 months ending June 30, 2017
- Rates Assumed:

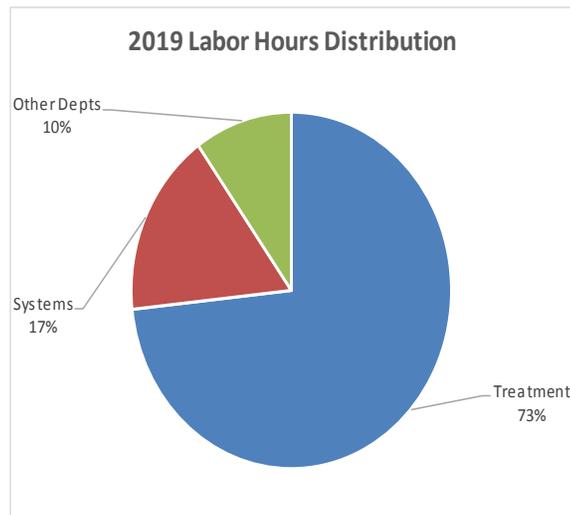
Effective Date:	Base/Per HCF
Jul 1 2013	\$8.35
Jul 1 2014	\$8.81
Jul 1 2015	\$9.70
Jan 1 2016	\$8.20
Jan 1 2017	\$9.35
Jul 1 2017	\$9.65
Jul 1 2018	\$9.95

Assumed \$.30 increase in July 2019, 2020 & 2021.

2019 Operating Expense Highlights

Salaries/Wages – Budgeted expenses increased 1.1% or \$12,586 to \$1,204,821. The increase was primarily due to the average wage rate increase of 3.0% and a reduction in hours from the Systems area as well as an adjustment in the number of hours budgeted for the Industrial Pre-Treatment (IPT) position.

Employee Benefits – The benefit rate (including FICA) decreased from 53.4% in 2018 to 50.51% in 2019 due to lower pension expenses. Overall, Employee Benefits expense decreased 5.2% (\$30,559).



Biosolids Disposal – The budget for this item was increased 12.5% (\$152,964). The budget assumes an increase in volume (wet tons) of 10.7% due to a projected rise in the biosolids (dry tons) processed at the treatment plant. The assumption for “percent total solids” (%TS) of 21% is unchanged from 2018 Budget. The disposal rate (per wet ton) is expected to increase 1.5% over the prior budget.

Chemicals – Overall, this category is up \$103,866 or 21.4%. The majority of this increase is related to the 30.8% increase in per unit costs of sodium hypochlorite, the disinfectant chemical used in the treatment process. The budget for that chemical is increasing \$103,866 or 21.4%.

Heat/Fuel Oil – The majority of the expense in this category involves pipeline delivered natural gas at the East End WWTF. The budget, an increase of \$4,520 (3.8%), assumed lower usage would mostly offset any increases in per unit cost.

Purchased Power – Power is expected to decrease 9.7% (\$106,976). Overall the cause of this is a reduction in supply rates. Usage and demand is also expected to be lower than the previous year at the East End Wastewater Treatment Plant (EEWTF). However, partially offsetting these decreases is an increase in usage at the pump stations, an increase in capacity costs for the EEWTF and less of a credit from the load response program.

Transportation – The budget increased \$1,434 (1.9%). This is due to a reduction in vehicle hours in Portland that tracks closely with the change in labor costs.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. The combined Support Services costs increased 5.1% (\$155,072).

Wastewater Services expenses increased 10.8% due in large part to the addition of an associate engineer position. Environmental Services expense increased 5.3% as the full time industrial pretreatment position replaced an environmental scientist position.

Debt Service – This is the annual principal and interest payments on bonds issued to finance capital projects. The expense will increase \$74,999 (2.9%) in 2019.

Renewal and Replacement – This is the fund’s annual contribution to a fund to finance smaller capital projects. A contribution of \$1,087,167 will be made in 2019.

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$11,841,972	\$6,124,212	\$12,248,424	\$12,616,080	\$367,656	3.0%
Interest Income	59,490	41,335	67,800	104,939	37,139	54.8%
Other Income	141,775	56,988	101,800	141,600	39,800	39.1%
<u>FEMA Reimbursement</u>	<u>8,939</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>n/a</u>
Total Revenue	12,052,176	6,222,535	12,418,024	12,862,619	444,595	3.6%
Salaries & Wages	1,082,126	557,552	1,192,235	1,204,821	12,586	1.1%
Employee Benefits	535,426	267,202	584,299	553,740	-30,559	-5.2%
Biosolids Disposal	1,487,985	746,307	1,222,811	1,375,775	152,964	12.5%
Chemicals	512,962	294,269	484,429	588,295	103,866	21.4%
Contracted Services	464,018	381,340	648,033	559,781	-88,252	-13.6%
Deferred Cost W/O	37,812	0	0	0	0	n/a
Heat/Fuel Oil	99,342	74,559	117,475	121,995	4,520	3.8%
Insurance	28,710	13,683	32,726	26,752	-5,974	-18.3%
Materials & Supplies	265,740	84,048	284,168	288,938	4,770	1.7%
Other Expense	14,588	-6,335	16,825	16,680	-145	-0.9%
Purchased Power	969,046	616,055	1,107,118	1,000,142	-106,976	-9.7%
Tele/Other Utilities	115,691	61,884	111,777	97,843	-13,934	-12.5%
Transportation	68,222	27,127	74,562	75,996	1,434	1.9%
SS - Administration	1,290,907	681,246	1,408,409	1,445,232	36,823	2.6%
SS - Engineering Services	267,779	154,427	494,545	507,845	13,300	2.7%
SS - Environmental Services	239,811	120,833	276,163	290,672	14,509	5.3%
SS - Wastewater Services	967,977	494,121	852,585	944,506	91,921	10.8%
SS - Water Services	15,062	9,069	28,744	27,263	-1,481	-5.2%
Operating Expense	8,463,204	4,577,387	8,936,904	9,126,276	189,372	2.1%
Debt Service	2,522,306	1,245,516	2,574,170	2,649,176	75,006	2.9%
Renewal & Replacement - Direct	720,000	360,000	720,000	900,000	180,000	25.0%
<u>Renewal & Replace - Indirect</u>	<u>131,410</u>	<u>93,473</u>	<u>186,950</u>	<u>187,167</u>	<u>217</u>	<u>0.1%</u>
Total Expense	11,836,920	6,276,376	12,418,024	12,862,619	444,595	3.6%
Current Year Surplus (Deficit)	215,256	-53,841	0	0		
Transfer to R&R	-215,256	0	0	0		
<u>Prior Year Surplus</u>	<u>3,150,009</u>	<u>3,150,009</u>	<u>3,262,220</u>	<u>3,106,012</u>		
Accumulated Surplus	3,150,009	3,096,168	3,262,220	3,106,012		

Operation Summary

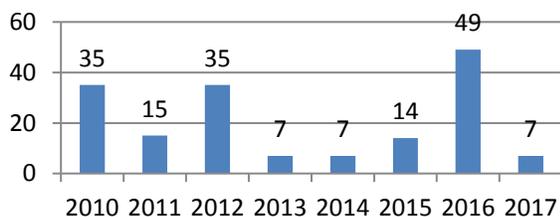
Wastewater Treatment: The Portland Water District owns, operates and maintains the interceptor and treatment facilities in the City of Portland. The largest facility, the East End WWTF is located off the Eastern Promenade while the Peaks Island facility is located by the ferry dock on the island.

EEWTF Parameter	Capacity	2017 Facility Avg	2017 - % Capacity Used
Flow (million gallons per day)	19.8 mgd	17.17 mgd	87 %
Biosolids Removed (wet tons/month)	N/A	1,914 wt/month	

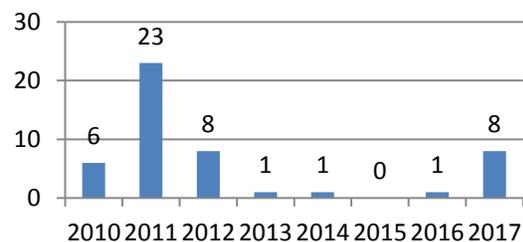
Effluent Permit Requirements:

Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 97% of the BOD; well above the required 85% removal. This is an increase in pollution removal efficiency and is related to the new diffused aeration system that was constructed over the past several years.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater; also the strength of pollution. The treatment plant removed 97% of the TSS, well above the required 85% removal. This is an increase in pollution removal efficiency and is also related to the new diffused aeration system that was constructed over the past several years.
Total Residual Chlorine	Used for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.
Effluent Nitrogen	Nitrogen is considered a pollutant that can contribute to water quality issues. The new permit requires monitoring of nitrogen during the warmer months and the development of a “nitrogen optimization” approach where PWD will be asked to operate the plant to reduce the effluent nitrogen loading using existing facilities. To date in 2018, the plant has demonstrated a 72% reduction in effluent nitrogen loading from historic levels from May to September.

EEWWTF License Exceedences



Peaks Island WWTF License Exceedences



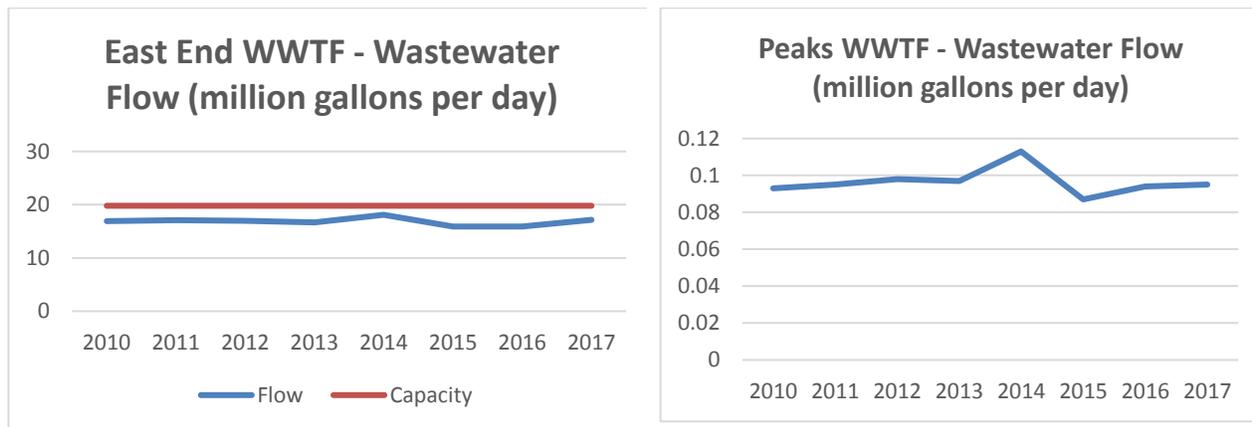
Operation Summary (continued)

The diffused aeration system construction was completed in the summer of 2017. This system has had several operational benefits, including: improved sludge settleability, reduced odors from the aeration system, and the ability to attempt nutrient optimization in the warmer months. Treatment efficiency has improved as well.

Over the winter months, a new odor control scrubber was installed at the Northeast Pump Station. With improvements already made to the odors from the aeration system due to the diffused aeration system, the intensity and frequency of odors from the facility have been greatly reduced.

The 5-year permit issued in 2017 asked PWD to submit an annual “nutrient optimization” report that includes effluent nitrogen results and our efforts to manage nitrogen. The new aeration system is anticipated to be able achieve a 20 – 40% reduction in effluent nitrogen levels. To date in 2018, the plant has demonstrated a 72% reduction in effluent nitrogen loading from historic levels from May to September.

The treatment facility on Peaks Island provides wastewater treatment to the residents and businesses on Peaks Island. The Peaks Island WWTF permit requires monitoring of effluent nitrogen from the treatment plant. Waste solids generated on the island are hauled to the mainland and processed at the Portland’s East End Wastewater Treatment Facility. With the completion of the Island Avenue sewer extension project and eventual connection of those customers adjacent to the new sewer, the capacity in the treatment plant has essentially been reached. In 2018, an analysis of the current capacity, along with suggested upgrades or opportunities for capacity improvements, was completed. The Peaks Island Plant has reached the full capacity with inflow & infiltration reductions likely providing the greatest opportunity for further capacity.



Wastewater Conveyance – interceptors and pumping stations

Parameter	2018 Actual to Sept	2019 Projected
Preventive Work Orders	160	200
Corrective Work Orders	25	45
Wet wells cleaned	8	15
Debris removed (tons)	9.52	15
Dry Weather Overflows	1	0

Operation Summary (continued)

2018 Other Highlights

- PWD hosted a number of events including open house with tours and aeration system ribbon cutting ceremony.
- Monthly CSO activities continue to be monitored and reported by PWD for regular distribution to stakeholders. Sites are continuously monitored by web based software. In 2016, many of these decade-old units had reached the end of their service life and were replaced with newer models. This should ensure that the monitors continue to provide monitoring and alarming of CSO sites for the next 10 years.
- The diffused aeration system construction was completed in the summer of 2017. This system has had several operational benefits, including: improved sludge settleability, reduced odors from the aeration system, and the ability to attempt nutrient optimization in the warmer months. Treatment efficiency has improved as well.
- Over the winter months, a new odor control scrubber was installed at the Northeast Pump Station. With improvements already made to the odors from the aeration system due to the diffused aeration system, the intensity and frequency of odors from the facility have been greatly reduced.
- The dewatering system was refurbished (one press was completely upgraded). Completed in the spring of 2018, the performance of the system has improved with higher sludge cake solids and the ability to manage solids inventory levels.
- The Peaks Island Facility experienced a number of violations related to excessive solids inventory levels in 2018. This was addressed and the plant has performed well since.
- The Fore River Pump Station Upgrade began in 2015 and design of the final phase was completed in 2018.

2019 Work Plan

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations in Portland.
- Plant operations will continue to focus on improving plant performance through process control efforts. These efforts will be supported by the ongoing aeration upgrade project.
- The electrical master plan and HVAC evaluations were completed in 2017. These assessments resulted in a long-range plan for the replacement and refurbishment of these critical support systems. The first projects are under design and construction will begin in 2019.
- A “nutrient optimization” report that describes the efforts and challenges of the plant’s efforts to attempt to manage the effluent nitrogen loading will be completed in 2018. This is a requirement of the 2017 permit. While there have been some disinfection system struggles due to the impact of ammonia removal, the plant has achieved an average of 72% reduction in historical nitrogen loading from May to September.
- The City of Portland has embarked on a two-year Integrated Planning effort to prioritize water quality commitments. This effort will assess combined sewer, stormwater, and wastewater treatment obligations and prioritize the use of resources to address the various efforts with a goal of improving receiving water quality.
- Projects at the East End WWTF will include two primary clarifier upgrades and process gate automation.

Aeration System Upgrade

Recently completed a \$10.9 million aeration system upgrade at Portland East End Wastewater Treatment Facility.



New diffused aeration system – note the mixing and air bubbles in the tank.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

Expenditures by CIP Year:

Projects:	<u>2017 CIP</u>	<u>2018 CIP</u>	<u>2019 CIP</u>	<u>Total</u>
SCADA & Technology		400,000	9,450	\$ 409,450
WW Collection & Pumping	20,000	400,000	585,000	\$ 1,005,000
WW Treatment	60,000	900,000	5,800,000	\$ 6,760,000
Total by CIP Year	\$ 80,000	\$ 1,700,000	\$ 6,394,450	\$ 8,174,450

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue 2019</u>	<u>Bond Issue 2021</u>	<u>Total Funding</u>
Beginning Balance	\$ 4,071,613			
2019 Contribution	\$ 900,000			
Total R&R Balance Available	<u>\$ 4,971,613</u>			
Projects:				
SCADA & Technology				
Asset, Billing, Customer Relations System		\$ 400,000		\$ 400,000
SCADA Radio Modem Replacement - 3126*	\$ 9,450			\$ 9,450
WW Collection & Pumping				
CSO Program - 131 (India St. Tide Gate)		\$ 420,000		\$ 420,000
Stroudwater PS Upgrades Phase 2 - 3006	\$ 265,000			\$ 265,000
Baxter Blvd PS Upgrades Design - 3144			\$ 250,000	\$ 250,000
Peaks Island Pump Station R&R - 3131	\$ 20,000			\$ 20,000
Portland Pump Station R&R - 3135	\$ 50,000			\$ 50,000
WW Treatment				
<u>East End Treatment Facility</u>				
Influent Screen, Effluent Meter, Piping		\$ 960,000		\$ 960,000
Backup Power Upgrade - 3010		\$ 3,950,000		\$ 3,950,000
Primary Clarifier Rehabilitation - 3013		\$ 750,000		\$ 750,000
Nitrogen Monitoring Instrumentation - 3015	\$ 75,000			\$ 75,000
HVAC Upgrades 3rd Floor - 3017		\$ 575,000		\$ 575,000
Boiler Replacement - 3018	\$ 300,000			\$ 300,000
Process Gate Automation - 3020	\$ 75,000			\$ 75,000
East End WWTF R&R - 3133	\$ 75,000			\$ 75,000
Total	\$ 869,450	\$ 6,655,000	\$ 250,000	\$ 8,174,450
Ending Balance	<u>\$ 4,102,163</u>			

*This cost is for 1 pump station.

Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds' assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Biosolids contract expires in 2021; assumed 5% increase in unit prices.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include HVAC, boiler replacement, clarifier and power backup projects at the treatment facility and upgrading the Baxter Boulevard pump station in 2020.

Summary of Projection Impact:

Assessment is projected to increase to \$14,700,000 in 2023, a 16% increase over 2019 Budget, with the most significant cost change related to debt service issued to finance capital projects. The Operating Reserve balance meets the 25% target balance. Capital R&R balance is projected to be approximately \$2 million below target.

Reserve Fund Balances



Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

Year	2018	2019	2020	2021	2022	2023
Value	21%	21%	24%	24%	23%	22%

Debt Service Ratio – Target: Greater or Equal to 125%

Year	2018	2019	2020	2021	2022	2023
Value	135%	141%	136%	136%	137%	141%

Projections for Rate-Making Purposes (continued)**Operating Fund:**

Wastewater Portland	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Revenues:					
Assessment Income	12,616,080	13,659,198	14,125,220	14,484,932	14,679,522
Interest Income	104,939	125,927	125,927	125,927	125,927
Other Income	141,600	141,600	141,600	141,600	141,600
Operating Expenses:					
Salaries & Wages	1,204,821	1,240,966	1,278,195	1,316,541	1,356,037
Employee Benefits	553,740	581,427	610,498	641,023	673,074
Biosolids Disposal	1,375,775	1,417,048	1,487,900	1,532,537	1,578,513
Chemicals	588,295	605,944	624,122	642,846	662,131
Contracted Services	559,781	576,574	593,871	611,687	630,038
Heat/Fuel Oil	121,995	125,655	129,425	133,308	137,307
Insurance	26,752	27,555	28,382	29,233	30,110
Materials & Supplies	288,938	297,606	306,534	315,730	325,202
Other Expense	16,680	17,180	17,695	18,226	18,773
Purchased Power	1,000,142	1,030,146	1,061,050	1,092,882	1,125,668
Tele/Other Utilities	97,843	100,778	103,801	106,915	110,122
Transportation	75,996	78,276	80,624	83,043	85,534
SS - Administration	1,445,232	1,495,815	1,573,819	1,628,903	1,685,915
SS - Engineering Services	507,845	525,620	544,017	563,058	582,765
SS - Wastewater Services	944,506	977,564	1,011,779	1,047,191	1,083,843
SS - Water Services	27,263	45,547	47,141	48,791	50,499
	9,126,276	9,444,547	9,810,229	10,134,188	10,469,085
Debt Service	2,649,176	3,295,228	3,370,568	3,381,321	3,186,014
Renewal & Replacement - Direct	900,000	900,000	900,000	900,000	900,000
Renewal & Replace - Indirect	187,167	186,950	186,950	186,950	186,950
Total Operating Expenses	12,862,619	13,826,725	14,267,747	14,602,459	14,742,049
Current Year Surplus(Deficit)	0	100,000	125,000	150,000	205,000
Prior Year Surplus	3,106,012	3,106,012	3,206,012	3,331,012	3,481,012
Accumulated Surplus	3,106,012	3,206,012	3,331,012	3,481,012	3,686,012
Target Balance(25% of budget)	3,215,655	3,456,681	3,566,937	3,650,615	3,685,512
Above/(Below)	-109,643	-250,669	-235,925	-169,603	500

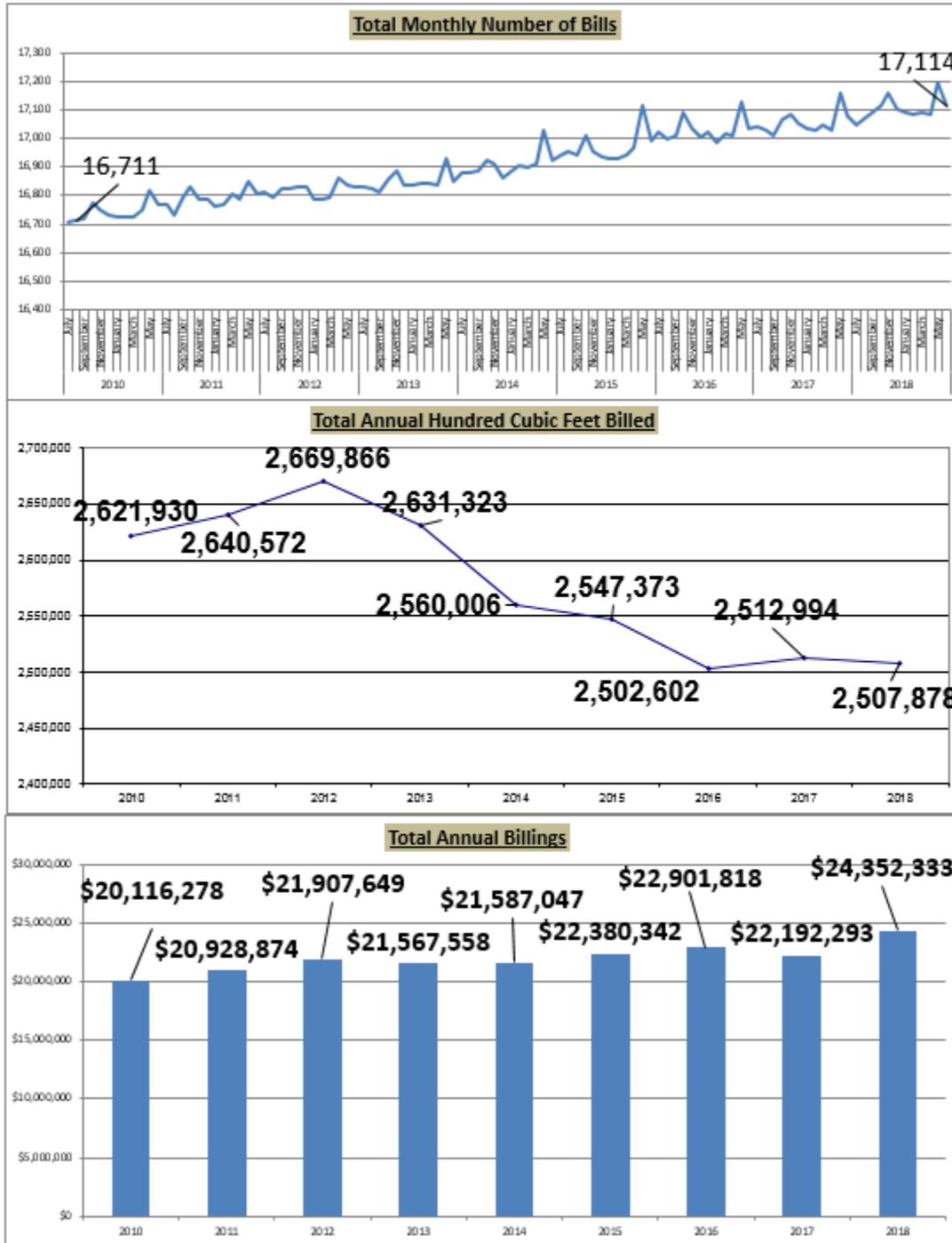
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$5,601,000

	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
R&R Balance BOY	\$ 4,071,613	\$ 4,086,163	\$ 3,836,163	\$ 3,736,163	\$ 3,611,163
Contribution	\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000
Withdrawals	\$ (885,450)	\$ (1,150,000)	\$ (1,000,000)	\$ (1,025,000)	\$ (895,000)
R&R Balance EOY	\$ 4,086,163	\$ 3,836,163	\$ 3,736,163	\$ 3,611,163	\$ 3,616,163

Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly. The total billing decline in 2016 is the result of the City’s implementation of a storm water fee to cover costs previously collected as part of sewer billings.

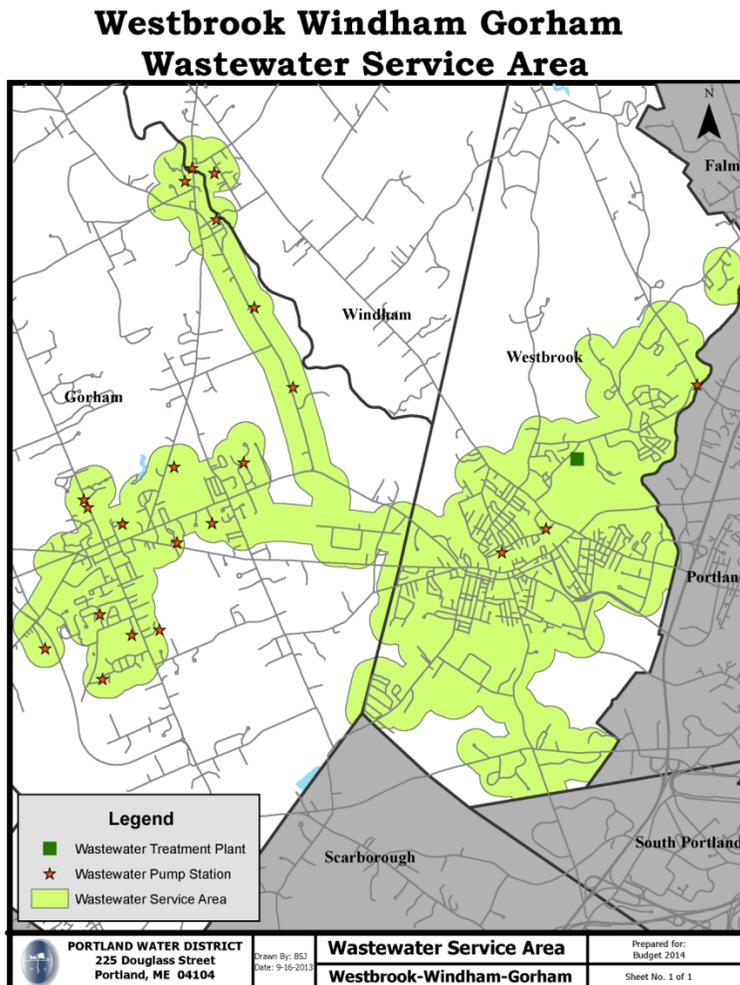
By Municipal Fiscal Year: July 1 to June 30



Fund: Wastewater - Westbrook

Background

The Portland Water District's charter authorizes the District to provide wastewater treatment collection system, and interceptor service to the city. Westbrook's wastewater is treated at the treatment facility located in Westbrook and jointly used by the towns of Windham and Gorham. The city maintains the collection system-collectors that transport wastewater from user's property to the District's interceptor system. Additionally, by contract, the District provides utility billing services.



Summary of Services Provided:

Treatment
2.397 million
gallons/day

Collection System
2 Westbrook only & 1
Joint use Pump Stations
with 9.2 miles of pipe

Utility Billing
Annual Billings of
\$4,213,353 on 4,692
Customers (avg.
\$74.83/month)

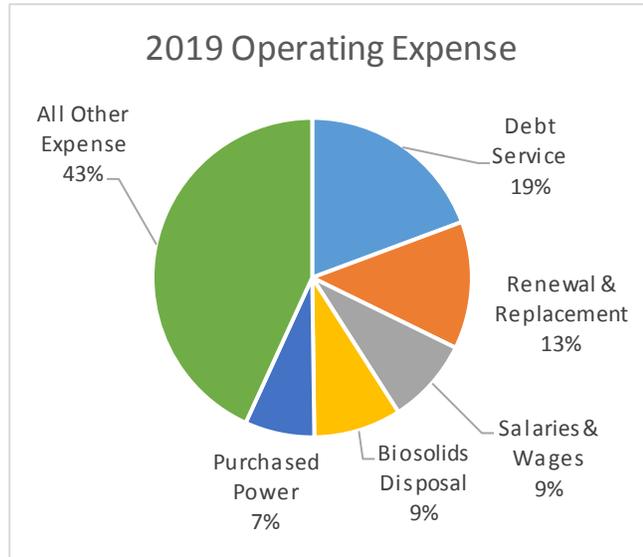
Fund: Wastewater - Westbrook

2019 Financial Summary

The proposed assessment of \$2,529,800 is a 0.3% increase over the previous year.

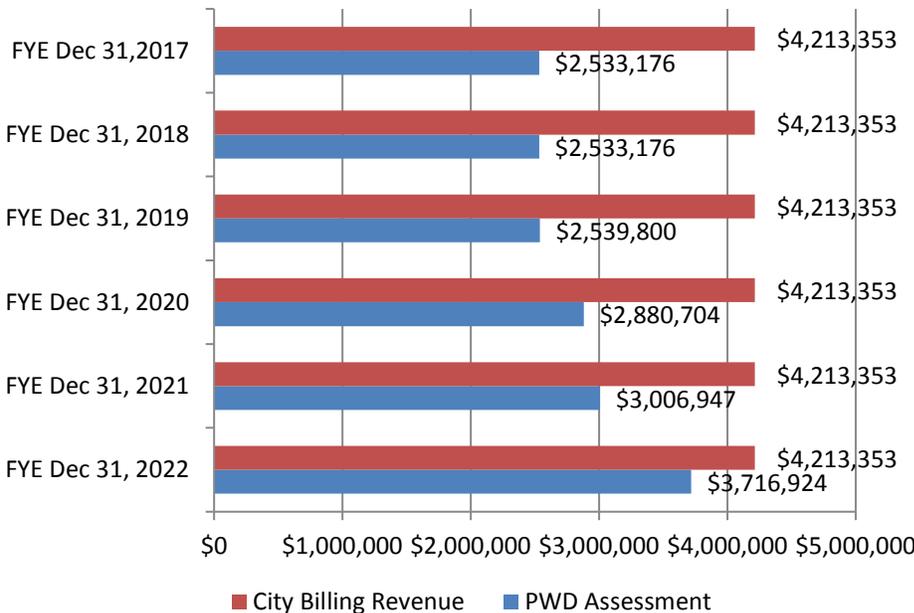
The proposed 2019 Operating Expense and Capital budgets are \$2,639,958 and \$1,243,260 respectively.

The Operating Expense budget is \$80,985 lower (3.0%) than the previous year. Departmental Expense decreased by \$29,227 or 1.7%, Debt Service decreased 7.0% to \$510,412 while Renewal & Replacement (direct and indirect) funding decreased \$71,765 to \$340,783. The majority of the Capital projects focus on upgrades to the joint Westbrook Treatment Facility.



Assessment Compared to Ratepayers' Billing

The municipality's and District's fiscal year end is Dec 31. The chart below compares the cash as collected by the District for sewer billings on their behalf and the District's assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines whether or not to increase the sewer billing rates.



Revenue Assumptions:

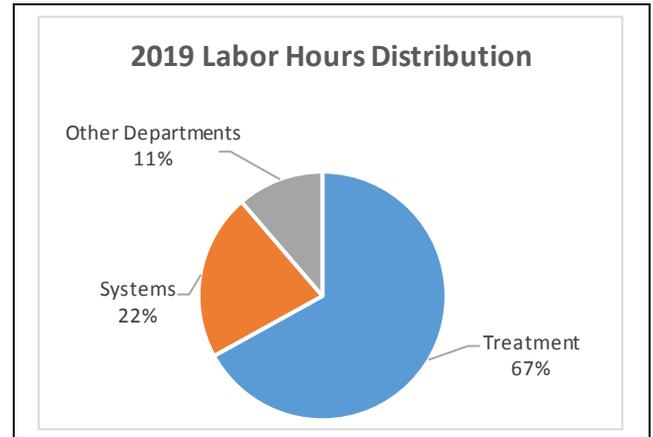
- Consumption assumed for 2018 and 2019 is based on consumption through June 30, 2017
- Rates Assumed:
Effective Date: Jan 2013
Base/Per HCF: \$11.13/\$6.13

2019 Operating Expense Highlights

Salaries/Wages – The expense decrease of 1.8% (\$4,276) has resulted in a budget amount of \$172,792. District labor rates increased an average of 3.0% while hours for this fund declined 4.2%.

Employee Benefits – The benefit rate (including FICA) decreased from 53.4% in 2018 to 50.51% in 2019. Overall, employee benefits expense decreased 8.1% (\$9,592).

Biosolids Disposal – Biosolids expense at the Westbrook Regional WWTF is projected to increase 6.0% due to a 4.3% increase in wet tons disposed and an expected 1.5% increase in the disposal price per wet ton. In addition, Westbrook's share of allocated treatment costs increased from 81.00% in 2018 to 84.00% in 2019. The result was a 9.9% (\$21,005) increase in expense to Westbrook.



Heat/Fuel Oil – The increase, of \$4,607 or 30.5%, was due to an increase in the contracted cost per gallon of heating oil in addition to the increase in the flow %.

Purchased Power – The budget for power is expected to decrease by 2.2% or \$4,265. This decrease is primarily due to a reduction in supply rates. However, partially offsetting this is an increase in usage.

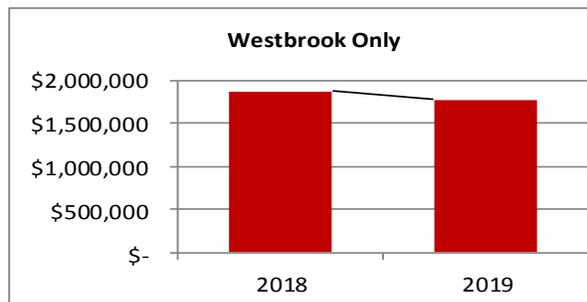
Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$20,836 or 3.0%.

The allocation from Environmental Services increased \$14,068 (13.9%) as the hiring of a full time pretreatment coordinator and the elimination of an environmental scientist position shifted expenses. The costs associated with Wastewater increased \$8,282 (5.1%) due to the addition of an associate engineer position

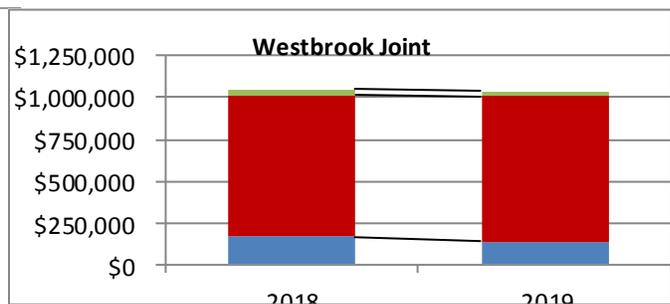
Debt Service – The annual principal and interest payments on bonds issued to finance capital projects, This item decreased 7.0% (\$38,147).

Renewal & Replacement – Dollars put aside to fund capital projects; the 2019 contribution is \$340,783.

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$2,533,176	\$1,266,588	\$2,533,176	\$2,539,800	\$6,624	0.3%
Interest Income	36,546	28,073	42,867	62,258	19,391	45.2%
Other Income	102,609	6,763	144,600	37,900	-106,700	-73.8%
FEMA Reimbursement	424	0	0	0	0	n/a
Total Revenue	2,672,755	1,301,424	2,720,643	2,639,958	-80,685	-3.0%
Salaries & Wages	195,466	117,079	233,367	229,091	-4,276	-1.8%
Employee Benefits	99,912	58,919	118,315	108,723	-9,592	-8.1%
Biosolids Disposal	279,741	160,866	213,092	234,097	21,005	9.9%
Chemicals	81,025	48,082	62,537	59,245	-3,292	-5.3%
Contracted Services	91,895	51,584	136,200	135,245	-955	-0.7%
Deferred Cost W/O	30,952	7,200	14,400	10,100	-4,300	-29.9%
Heat/Fuel Oil	16,535	11,144	15,109	19,716	4,607	30.5%
Insurance	5,671	2,460	5,964	4,980	-984	-16.5%
Materials & Supplies	49,543	18,700	41,575	50,248	8,673	20.9%
Other Expense	4,225	3,926	4,428	4,772	344	7.8%
Purchased Power	225,170	128,695	190,489	186,224	-4,265	-2.2%
Tele/Other Utilities	16,540	10,218	22,227	24,271	2,044	9.2%
Transportation	8,202	3,217	12,983	12,365	-618	-4.8%
SS - Administration	298,623	155,385	321,191	318,336	-2,855	-0.9%
SS - Engineering Services	53,666	29,677	95,952	97,564	1,612	1.7%
SS - Environmental Services	98,501	43,691	100,996	115,064	14,068	13.9%
SS - Wastewater Services	156,411	94,318	163,767	172,049	8,282	5.1%
SS - Water Services	3,651	2,212	6,964	6,693	-271	-3.9%
Operating Expense	1,715,729	947,373	1,759,556	1,788,783	29,227	1.7%
Debt Service	458,229	258,983	548,559	510,412	-38,147	-7.0%
Renewal & Replacement - Direct	377,652	185,287	370,574	300,000	-70,574	-19.0%
Renewal & Replace - Indirect	30,198	20,975	41,954	40,763	-1,191	-2.8%
Total Expense	2,581,808	1,412,618	2,720,643	2,639,958	-80,685	-3.0%
Current Year Surplus (Deficit)	90,947	-111,194	0	0		
Transfer to R&R	-90,946	0	0	0		
Prior Year Surplus	844,744	844,745	898,340	752,234		
Accumulated Surplus	844,745	733,551	898,340	752,234		



Westbrook Only – Westbrook Only expenses were down \$104.7k (5.6%).



Westbrook JT – Expense down 0.8%, Westbrook's share of expense up (81.0% to 84.0%); overall Westbrook's share of expense up \$24.0k.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

Expenditures by CIP Year:

	<u>2019</u>	<u>Total</u>
Projects:		
SCADA & Technology		
SCADA Radio Modem Replacement - 3126 (prorated)	\$ 37,800	\$ 37,800
WW Collection & Pumping		
Joint Westbrook Pump Station R&R - 3134 (prorated)	\$ 13,320	\$ 13,320
WW Treatment		
Dewatered Sludge Cake Discharge - 3001 (prorated)	\$ 66,600	\$ 66,600
Aeration & Clarifier Upgrade Design - 3022 (prorated)	\$ 499,500	\$ 499,500
Sludge Storage Odor Control - 3025 (prorated)	\$ 499,500	\$ 499,500
Redundant Polymer Makedown - 3026 (prorated)	\$ 49,950	\$ 49,950
BFP, Ancillary Wiring & Controls - 3027 (prorated)	\$ 43,290	\$ 43,290
Treatment Plant R&R - 3132 (prorated)	\$ 33,300	\$ 33,300
Total by CIP Year	\$ 1,243,260	\$ 1,243,260

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue 2019</u>	<u>Bond Issue 2021</u>	<u>Total Funding</u>
Beginning Balance	\$ 3,530,945			
2019 Contribution	\$ 300,000			
Total R&R Balance Available	\$ 3,830,945			
Projects:				
SCADA & Technology	\$ 37,800			\$ 37,800
WW Collection & Pumping	\$ 13,320			\$ 13,320
WW Treatment	\$ 193,140	\$ 499,500	\$ 499,500	\$ 1,192,140
Total	\$ 244,260	\$ 499,500	\$ 499,500	\$ 1,243,260
Ending Balance	\$ 3,586,685			

Prorated Projects: Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity. In the case of the SCADA radio modem replacement project, the proration is based on there being 4 Westbrook only pump stations out of the 37 total pump stations that are planned to have work done in 2019.

Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds’ assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

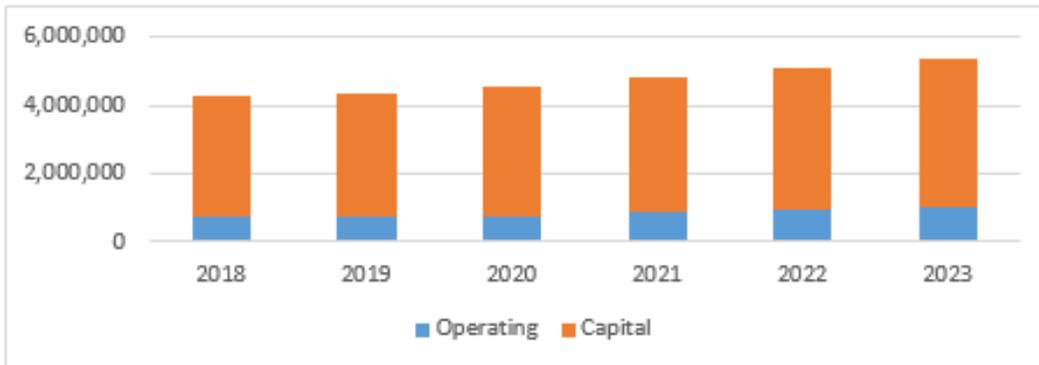
- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Biosolids contract expires in 2021; assumed 5% increase in unit prices.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include an estimated \$10.5M aeration and secondary clarifier project at treatment facility in 2020 and upgrading Dana Court pump station.

Summary of Projection Impact:

Assessment is projected to increase to \$3,839,000 in 2023, a 51% increase over 2019 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance meets the 25% target balance. Capital R&R balance continues to improve.

Debt Service as a percent of budget is high due to significant upcoming upgrades at the treatment plant.

Reserve Fund Balances



Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023
20%	19%	27%	28%	40%	38%

Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023
175%	167%	140%	137%	128%	129%

Projections for Rate-Making Purposes (continued)**Operating Fund:**

Wastewater Westbrook	2019	2020	2021	2022	2023
	Budget	Forecast	Forecast	Forecast	Forecast
Revenues:					
Assessment Income	2,539,800	2,880,704	3,006,947	3,821,924	3,839,070
Interest Income	62,258	74,710	74,710	74,710	74,710
Other Income	37,900	37,900	37,900	37,900	37,900
Total Revenues	2,639,958	2,993,314	3,119,557	3,934,534	3,951,680
Operating Expenses:					
Salaries & Wages	229,091	235,964	243,043	250,334	257,844
Employee Benefits	108,723	114,159	119,867	125,860	132,153
Biosolids Disposal	234,097	241,120	253,176	260,771	268,594
Chemicals	59,245	61,022	62,853	64,739	66,681
Contracted Services	135,245	139,302	143,481	147,785	152,219
Deferred Cost W/O	10,100	10,100	10,100	10,100	10,100
Heat/Fuel Oil	19,716	20,307	20,916	21,543	22,189
Insurance	4,980	5,129	5,283	5,441	5,604
Materials & Supplies	50,248	51,755	53,308	54,907	56,554
Other Expense	4,772	4,915	5,062	5,214	5,370
Purchased Power	186,224	191,811	197,565	203,492	209,597
Tele/Other Utilities	24,271	24,999	25,749	26,521	27,317
Transportation	12,365	12,736	13,118	13,512	13,917
SS - Administration	318,336	329,478	345,210	357,292	369,797
SS - Engineering Services	97,564	100,979	104,513	108,171	111,957
SS - Environmental Services	115,064	119,091	123,259	127,573	132,038
SS - Wastewater Services	172,049	178,071	184,303	190,754	197,430
SS - Water Services	6,693	11,077	11,465	11,866	12,281
	1,788,783	1,852,015	1,922,271	1,985,875	2,051,642
Debt Service	510,412	817,722	873,709	1,520,082	1,471,461
Renewal & Replacement - Dir	300,000	300,000	300,000	300,000	300,000
Renewal & Replace - Indirect	40,763	23,577	23,577	23,577	23,577
Capital Finance Expense	851,175	1,141,299	1,197,286	1,843,659	1,795,038
Total Operating Expenses	2,639,958	2,993,314	3,119,557	3,829,534	3,846,680
Current Year Surplus(Deficit)	0	0	0	105,000	105,000
Prior Year Surplus	752,234	752,234	752,234	752,234	857,234
Accumulated Surplus	752,234	752,234	752,234	857,234	962,234
Target Balance(25% of budget)	659,990	748,329	779,889	957,384	961,670

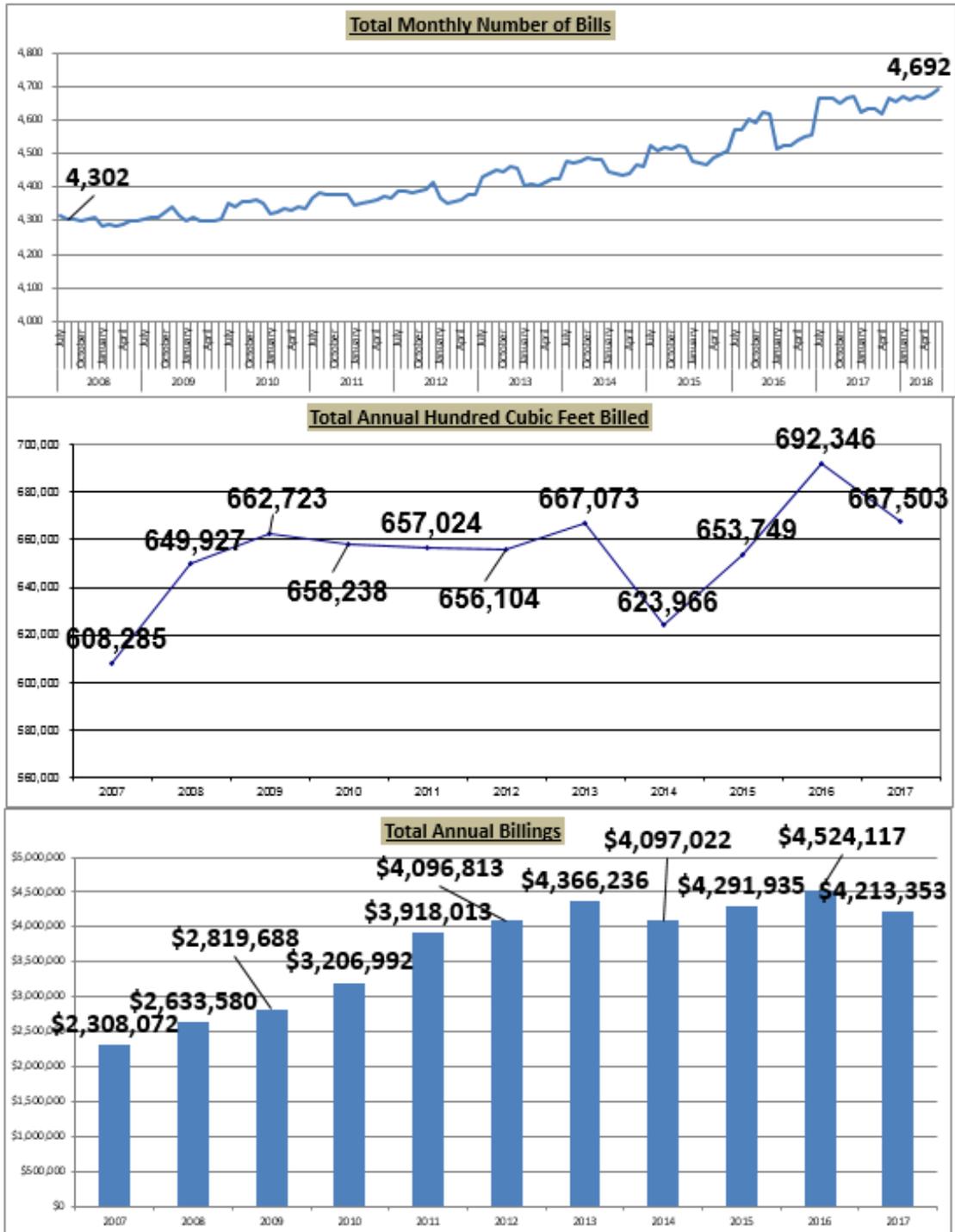
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$640,203

	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
R&R Balance BOY	\$ 3,530,945	\$ 3,586,685	\$ 3,801,745	\$ 3,980,125	\$ 4,116,955
Contribution	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Withdrawals	\$ (244,260)	\$ (84,940)	\$ (121,620)	\$ (163,170)	\$ (46,620)
R&R Balance EOY	\$ 3,586,685	\$ 3,801,745	\$ 3,980,125	\$ 4,116,955	\$ 4,370,335

Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

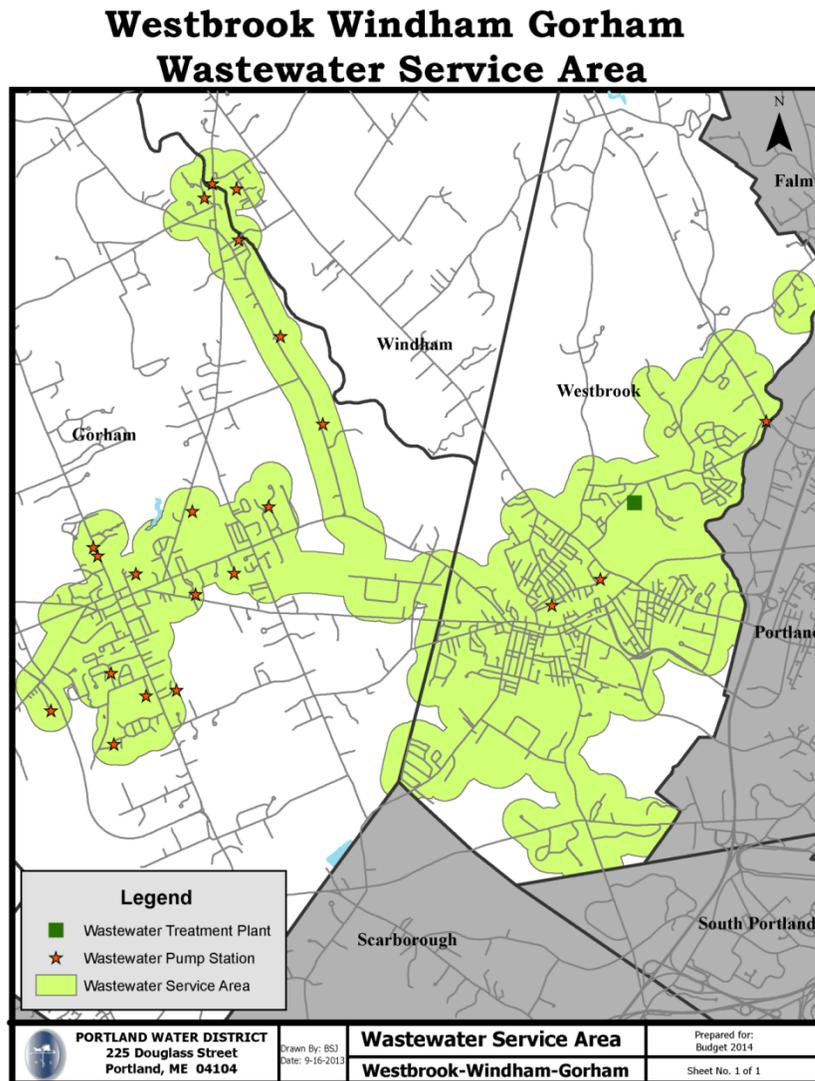
By Municipal Fiscal Year: Jan 1 to Dec 31



Fund: Wastewater – Windham

Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system-interceptors service to the town. By contract with the town, the District additionally operates and maintains the collectors in the sewer collection system. Windham's wastewater is treated at the treatment facility located in Westbrook and jointly used by Windham, the Town of Gorham and City of Westbrook. Additionally, by contract, the District provides utility billing services.



Summary of Services Provided:

Treatment

*0.086 Million
gallons/day*

Collection System

*2 Windham only & 3
Joint use Pump Stations
with 5.8 miles of pipe*

Utility Billing

*Annual Billings of
\$349,054 with 56
Customers*

Fund: Wastewater - Windham

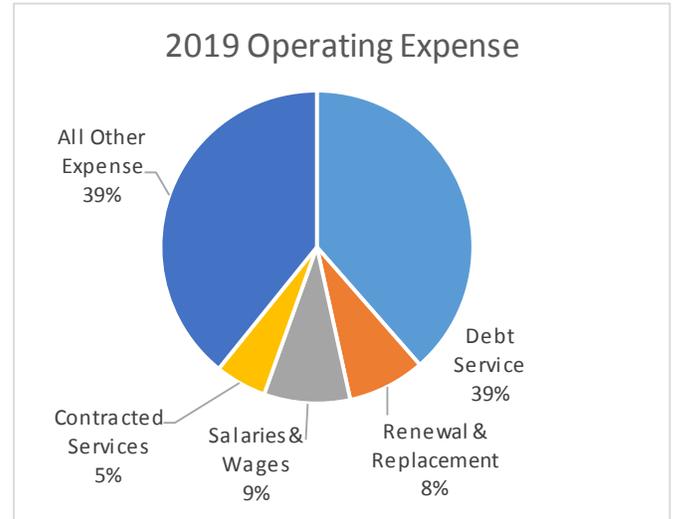
2019 Financial Summary

The town’s proposed assessment of \$366,768 is 1.7% increase (\$6,240).

The proposed 2019 Operating Expense and Capital budgets are \$373,458 and \$655,410, respectively.

Operating Expense was up 1.4%. Windham flows decreased in both the Westbrook Region WWTF (3.25% to 3.0%) and the Little Falls system (72.5% to 72.0%).

The 2019 Capital budget includes a \$560k upgrade to the Depot St. pump station that will be bond funded.



Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the cash as collected by the District for sewer billings on their behalf and the District’s assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines whether or not to increase the sewer billing rates. Any shortfall of billing revenue is made up from the Town’s general funds.



Revenue Assumptions:

- Consumption is the 12 months ending June 30, 2018
- Rates Assumed:

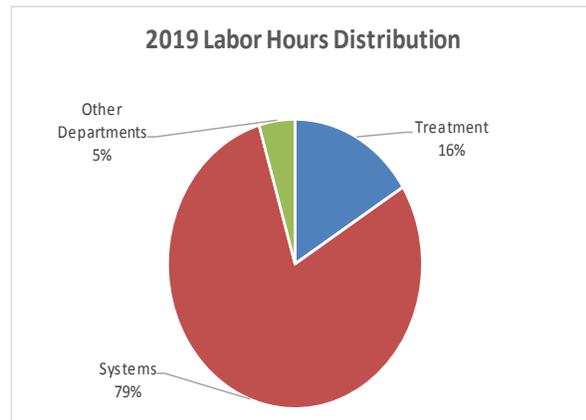
Effective Date:	Base/Per HCF
April 2009	\$48.84/\$3.24

No change since 4/1/2009

2019 Operating Expense Highlights

Salaries/Wages – Wages were budgeted to increase 18.7% (\$5,236). The increase was due to a rise in the hours WW Systems plans to spend in the area to deal with pump station maintenance and repairs.

Employee Benefits – Overall, employee benefits expense increased \$1,696 (12.0%) . The benefit rate (including FICA) decreased from 53.40% in 2018 to 50.51% in 2019. This lower rate kept the increase below the percentage increase of the labor.



Biosolids Disposal – Biosolids expense at the Westbrook Regional WWTF is projected to increase 6.0% due to a 4.3% increase in wet tons disposed and an expected 1.5% increase in the disposal price per wet ton. However, Windham’s share of allocated treatment costs decreased from 3.25% in 2018 to 3.0% in 2019. The result was a 2.2% (\$189) decrease in expense.

Contracted Services – The budget for this item increased \$922 (4.9%) primarily due to an increase in CCTV work \$826.

Materials & Supplies – This item increased \$4,932 (58.4%) due to projected increases in purchases related to odor control issues at the pump stations.

Purchased Power – The budget for power is expected to increase by 3.2% or \$479 to \$15,658. The primary driver for this is an increased usage at the pump stations.

Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services decreased \$5,945 or 8.5%.

The allocation from Environmental Services increased \$1,567 (44.2%) as the hiring of a full time pretreatment coordinator and the elimination of an environmental scientist position shifted expenses. The costs associated with Wastewater increased \$4,294 (26.9%) due to the addition of an associate engineer position.

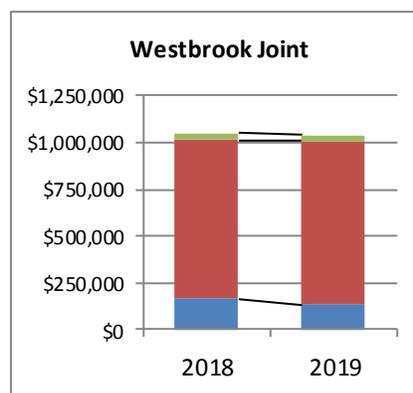
Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This item decreased 2.3% (\$3.395) as older bond issues were retired.

Renewal & Replacement - Dollars put aside to fund capital projects. A contribution of \$29,905 will be made in 2019.

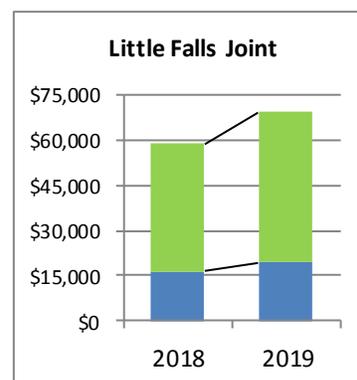
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$360,528	\$180,264	\$360,528	\$366,768	\$6,240	1.7%
Interest Income	3,723	2,611	4,130	6,690	2,560	62.0%
<u>Other Income</u>	<u>2,189</u>	<u>157</u>	<u>3,500</u>	<u>0</u>	<u>-3,500</u>	<u>-100.0%</u>
Total Revenue	366,440	183,032	368,158	373,458	5,300	1.4%
Salaries & Wages	28,505	19,459	28,072	33,308	5,236	18.7%
Employee Benefits	14,898	10,085	14,183	15,879	1,696	12.0%
Biosolids Disposal	11,329	6,455	8,550	8,361	-189	-2.2%
Chemicals	3,267	1,920	2,492	2,116	-376	-15.1%
Contracted Services	16,601	6,690	18,980	19,902	922	4.9%
Deferred Cost W/O	670	0	0	0	0	n/a
Heat/Fuel Oil	2,139	806	1,933	2,247	314	16.2%
Insurance	772	315	763	609	-154	-20.2%
Materials & Supplies	7,607	6,482	8,441	13,373	4,932	58.4%
Other Expense	158	155	172	159	-13	-7.6%
Purchased Power	17,715	9,955	15,179	15,658	479	3.2%
Tele/Other Utilities	473	238	582	556	-26	-4.5%
Transportation	7,746	6,843	11,599	11,568	-31	-0.3%
SS - Administration	34,522	17,706	36,615	36,185	-430	-1.2%
SS - Engineering Services	7,353	4,263	13,541	14,086	545	4.0%
SS - Environmental Services	3,315	1,503	3,549	5,116	1,567	44.2%
SS - Wastewater Services	16,537	8,651	15,975	20,269	4,294	26.9%
<u>SS - Water Services</u>	<u>75</u>	<u>42</u>	<u>158</u>	<u>127</u>	<u>-31</u>	<u>-19.6%</u>
Operating Expense	173,682	101,568	180,784	199,519	18,735	10.4%
Debt Service	147,870	71,520	147,429	144,034	-3,395	-2.3%
Renewal & Replacement - Direct	20,000	17,925	35,849	25,849	-10,000	-27.9%
<u>Renewal & Replace - Indirect</u>	<u>2,882</u>	<u>2,052</u>	<u>4,096</u>	<u>4,056</u>	<u>-40</u>	<u>-1.0%</u>
Total Expense	344,434	193,065	368,158	373,458	5,300	1.4%
Current Year Surplus (Deficit)	22,006	-10,033	0	0		
Transfer to R&R	-22,005	0	0	0		
Prior Year Surplus	109,099	109,100	132,331	89,395		
Accumulated Surplus	109,100	99,067	132,331	89,395		



Windham Only – Expense up \$992 (0.3%).



Westbrook JT – Expense down 0.8%, Windham's share of total down (3.25% to 3.0%), Windham share of expense down \$2.9k.



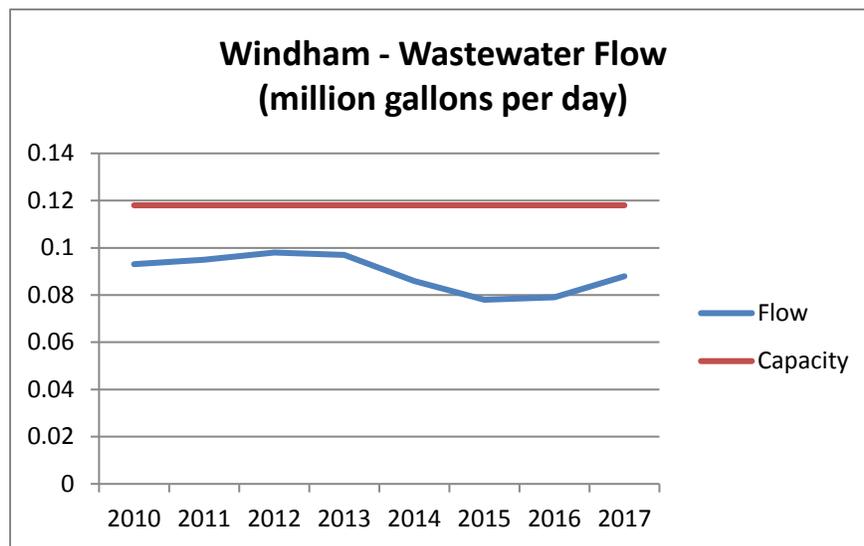
Little Falls JT – Expense up \$10.4k, Windham's share of expense down (72.5% to 72.0%), Windham's share up \$7.2k.

Operation Summary

Wastewater Treatment

Wastewater generated within the Town of Windham, including the Maine Correctional Center and the Little Falls area of Gorham, is conveyed to the Westbrook/Gorham/Windham Regional WWTF. The Town of Windham has reserved 2.6% of a design capacity of 4.54 million gallons a day, or 118,040 gallons. The table below shows the volume of flows to the Westbrook/Gorham/Windham Regional Wastewater Treatment Facility.

Area	2017 Windham Flow	Westbrook WWTF Flow	% Windham Flow
Windham	0.088 mgd	3.02 mgd	2.9%
WGWTF Capacity	Windham Capacity (2.6%)	% Capacity Used	Capacity Remaining
4,540,000 gal/day	0.118 mgd	74.6 %	0.030 mgd



Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2018 Actual to Sept	2019 Projected
Preventive Work Orders	49	60
Corrective Work Orders	7	5
Wet wells cleaned	25	15
Debris removed (tons)	16.9	10
Dry Weather Overflows	0	0

Operation Summary (continued)

2018 Other Highlights

- Preventive type work continues to be the main focus of system staff.
- Wet well and siphon cleaning were performed on a regular schedule using our Hansen scheduled maintenance program. This effort is in response to odor concerns in the area and the need to regularly clean the siphon to ensure the system operates properly. Staff inspects the siphon weekly.
- In response to odor concerns at the Mallison St. Pump Station, an odor control system was installed. There have been no complaints of odor since the system was installed in the summer of 2012.
- The Route 202 Pump Station flow meter was replaced in 2015. This meter records the flow from the Windham area.
- The addition of an odor control unit at the Little River Pump Station (which is jointly used by Windham and Gorham) is under design.

2019 Work Plan

- All pump stations will be continuously monitored with our SCADA system and dispatch service. Operations staff will visit each station on a weekly basis.
- Asset Management Software will drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders.
- A new pump station on Depot St. to serve the Windham Little Falls area will be designed and installed in 2019.
- Wet wells are scheduled for cleaning on a quarterly basis unless experience dictates otherwise.
- The siphon will be inspected and cleaned as needed. In 2017, a new monitoring unit will be installed to alarm in advance of overflows at the siphon inlet structure.
- The Routine Renewal and Replacement capital account will be used to address any unanticipated equipment issues.
- The Westbrook/Gorham/Windham Regional WWTF will have major work on a number of process areas, including the dewatering conveyance system, odor control for the sludge storage tank and polymer system additions.
- Design of the aeration system upgrade to the treatment plant will begin in 2019.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

Expenditures by CIP Year:

	<u>2019</u>	<u>Total</u>
Projects:		
SCADA & Technology		
SCADA Radio Modem Replacement - 3126 (prorated)	\$ 28,350	\$ 28,350
WW Collection & Pumping		
Joint Westbrook Pump Station R&R - 3134 (prorated)	\$ 520	\$ 520
Windham Only Pump Station R&R - 3138	\$ 20,000	\$ 20,000
Depot St PS Upgrades Phase 1 - 3139	\$ 560,000	\$ 560,000
WW Treatment		
<u>Westbrook Treatment Plant</u>		
Dewatered Sludge Cake Discharge - 3001 (prorated)	\$ 2,600	\$ 2,600
Aeration & Clarifier Upgrade Design - 3022 (prorated)	\$ 19,500	\$ 19,500
Sludge Storage Odor Control - 3025 (prorated)	\$ 19,500	\$ 19,500
Redundant Polymer Makedown - 3026 (prorated)	\$ 1,950	\$ 1,950
BFP, Ancillary Wiring & Controls - 3027 (prorated)	\$ 1,690	\$ 1,690
Treatment Plant R&R - 3132 (prorated)	\$ 1,300	\$ 1,300
Total by CIP Year	<u>\$ 655,410</u>	<u>\$ 655,410</u>

Source of Funds:

	<u>R&R Fund</u>	<u>Bond Issue 2019</u>	<u>Bond Issue 2021</u>	<u>Grant</u>	<u>Funding Total</u>
Beginning Balance	\$ 302,277				
2019 Contribution	\$ 25,849				
Total R&R Balance Available	<u>\$ 328,126</u>				
Projects:					
SCADA & Technology	\$ 28,350				\$ 28,350
WW Collection & Pumping	\$ 20,520		\$ 325,000	\$ 235,000	\$ 580,520
WW Treatment	\$ 7,540	\$ 19,500	\$ 19,500		\$ 46,540
Total	<u>\$ 56,410</u>	<u>\$ 19,500</u>	<u>\$ 344,500</u>	<u>\$ 235,000</u>	<u>\$ 655,410</u>
Ending Balance	<u>\$ 271,716</u>				

Prorated Projects: Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity. In the case of the SCADA radio modem replacement project, the proration is based on there being 3 Windham pump stations out of the 37 total pump stations that are planned to have work done in 2019.

Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds’ assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% each year. Maintain same number of employees.
- Benefit increases of 5% each year.
- Biosolids contract expires in 2021; assumed 5% increase in unit prices.
- Other expenses increase by 3.0% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2019 5-year capital plan. New debt assumed a 20-year life at 5% interest. Significant capital projects include an estimated \$10.5M aeration and secondary clarifier project at the treatment facility in 2020 and upgrading the Depot Street pump station in 2019.

Summary of Projection Impact:

Assessment is projected to increase to \$469,000 in 2023, a 28% increase over 2019 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance meets the 25% target balance. Capital R&R balance is projected to be approximately \$170,000 above target.

Debt Service as percent of budget is high due to Windham’s request to connect the Little Falls area to the Westbrook Regional Treatment Plant and significant upcoming upgrades at the treatment plant.

Reserve Fund Balances



Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

Year	2018	2019	2020	2021	2022	2023
Value	40%	39%	37%	41%	43%	43%

Debt Service Ratio – Target: Greater or Equal to 125%

Year	2018	2019	2020	2021	2022	2023
Value	127%	121%	133%	128%	124%	124%

Projections for Rate-Making Purposes (continued)

Wastewater Windham	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
Revenues:					
Assessment Income	366,768	389,421	427,558	460,075	468,677
Interest Income	6,690	8,028	8,028	8,028	8,028
Total Revenues	373,458	397,449	435,586	468,103	476,705
Operating Expenses:					
Salaries & Wages	33,308	34,307	35,336	36,396	37,488
Employee Benefits	15,879	16,673	17,507	18,382	19,301
Biosolids Disposal	8,361	8,612	9,043	9,314	9,593
Chemicals	2,116	2,179	2,244	2,311	2,380
Contracted Services	19,902	20,499	21,114	21,747	22,399
Heat/Fuel Oil	2,247	2,314	2,383	2,454	2,528
Insurance	609	627	646	665	685
Materials & Supplies	13,373	13,774	14,187	14,613	15,051
Other Expense	159	164	169	174	179
Purchased Power	15,658	16,128	16,612	17,110	17,623
Tele/Other Utilities	556	573	590	608	626
Transportation	11,568	11,915	12,272	12,640	13,019
SS - Administration	36,185	37,451	39,812	41,205	42,647
SS - Engineering Services	14,086	14,579	15,089	15,617	16,164
SS - Environmental Services	5,116	5,295	5,480	5,672	5,871
SS - Wastewater Services	20,269	20,978	21,712	22,472	23,259
SS - Water Services	127	211	218	226	234
	199,519	206,279	214,414	221,606	229,047
Debt Service	144,034	143,225	173,227	198,552	199,713
Renewal & Replacement - Direct	25,849	35,849	35,849	35,849	35,849
Renewal & Replace - Indirect	4,056	4,096	4,096	4,096	4,096
Capital Finance Expense	173,939	183,170	213,172	238,497	239,658
Total Operating Expenses	373,458	389,449	427,586	460,103	468,705
Current Year Surplus(Deficit)	0	8,000	8,000	8,000	8,000
Prior Year Surplus	86,395	86,395	94,395	102,395	110,395
Accumulated Surplus	86,395	94,395	102,395	110,395	118,395
Target Balance(25% of budget)	93,365	97,362	106,897	115,026	117,176
Above/(Below)	-6,970	-2,967	-4,502	-4,631	1,219

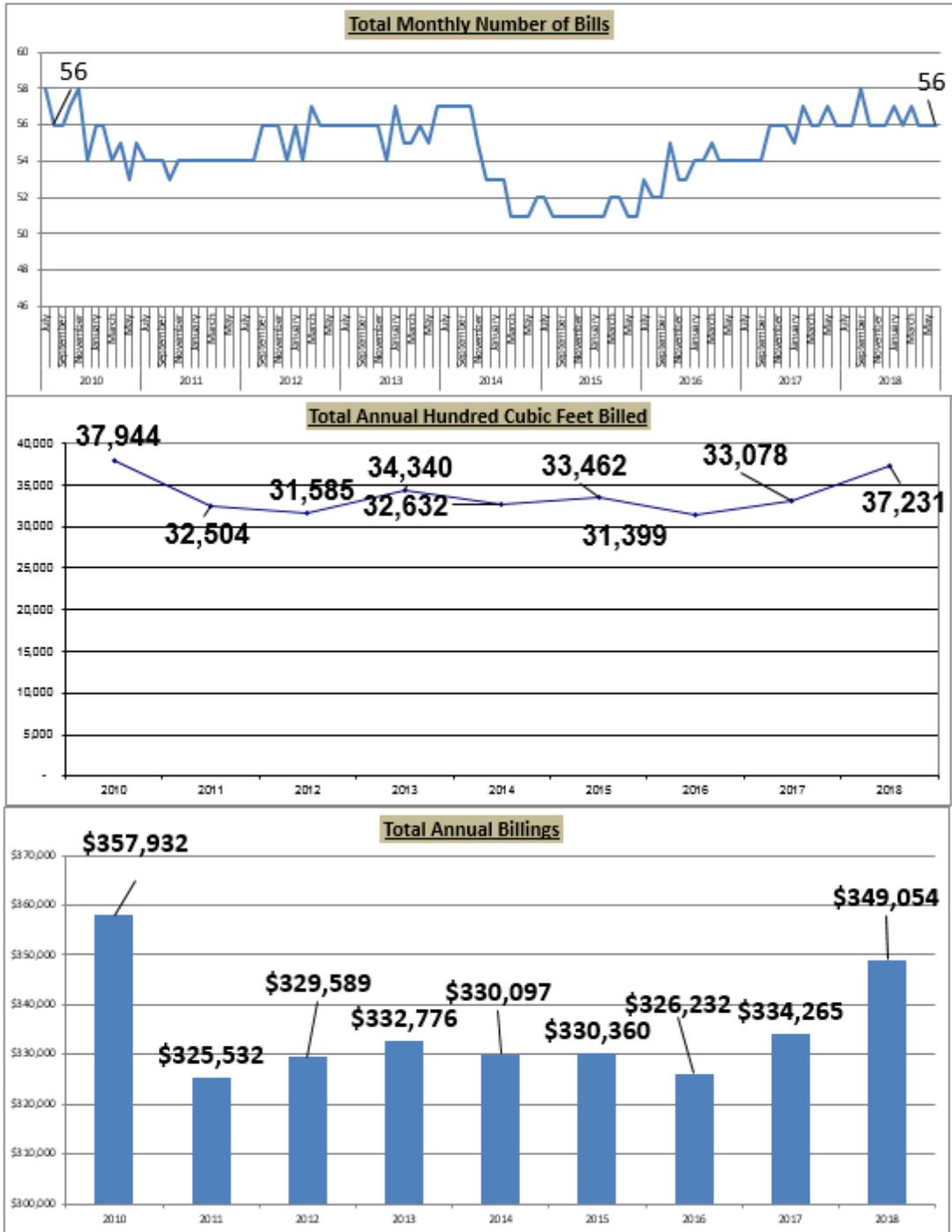
Operating Fund:**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$150,000

	2019 Budget	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast
R&R Balance BOY	\$ 302,277	\$ 271,716	\$ 285,225	\$ 299,254	\$ 308,733
Contribution	\$ 25,849	\$ 35,849	\$ 35,849	\$ 35,849	\$ 35,849
Withdrawals	\$ (56,410)	\$ (22,340)	\$ (21,820)	\$ (26,370)	\$ (21,820)
R&R Balance EOY	\$ 271,716	\$ 285,225	\$ 299,254	\$ 308,733	\$ 322,762

Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

By Municipal Fiscal Year: July 1 to June 30



Falmouth Assessment and Scarborough and South Portland Contracted Services

Background

By contract, the district provides utility billing and collection services for Falmouth, Scarborough and South Portland. Wastewater services are provided in the towns of Falmouth and Scarborough by their towns' Sanitary District, both independent wastewater utilities, and in the city of South Portland by Water Resource Protection, a department of the city of South Portland.

For Scarborough and South Portland, the district estimates the cost to provide the billing and payment collection service as documented in the annual budget and bills the municipalities the estimated cost. The amount is billed to the municipality in equal monthly payments.

For Falmouth, in addition to the billing and payment collection service costs, the District will assess the town for debt service costs related to the bond that the District issued on behalf of Falmouth. The debt and the related assets will be part of the District's balance sheet but Falmouth will operate and maintain the assets.

The municipality determines the system user fees to pay the district bill and any municipal costs related to the sewer system. The district includes the sewer user fees on the monthly water utility bill sent to customers. Sewer user fees collected from users are remitted to the municipality on a weekly basis.

Sewer user fees are based on water consumption in South Portland and Scarborough, with a 1 HCF (hundred cubic feet) minimum fee plus an additional fee for each HCF used above the minimum. Falmouth user fees are based on a flat rate per month for residential homeowners and commercial customers are billed a flat rate plus a fee based on the number of fixtures and number of units at the location.

2019 Summary

The District is proposing a 1.3% (\$4,056) assessment increase in Falmouth and a 2.0% (\$3,948) increase in South Portland. Scarborough's annual assessment of \$11,256 is unchanged.

Total expense for each municipality is relatively unchanged. Falmouth and South Portland are increasing 1.4% and 1.6% respectively while Scarborough's total expense is decreasing 2.6%. The budget also assumes \$100,080 will be deducted from South Portland's accumulated surplus during 2018 to cover costs associated with the ABC project.

Falmouth Assessment and Scarborough and South Portland Contracted Services

Falmouth:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$263,604	\$155,028	\$310,056	\$314,112	\$4,056	1.3%
Interest Income	1,875	482	261	409	148	56.7%
Total Revenue	265,479	155,510	310,317	314,521	4,204	1.4%
Operating Expense	12,067	6,249	12,799	14,859	2,060	16.1%
Debt Service	258,054	143,764	297,518	299,662	2,144	0.7%
Total Expense	270,121	150,013	310,317	314,521	4,204	1.4%
Current Year Surplus (Deficit)	-4,642	5,497	0	0		
Prior Year Surplus	5,940	1,298	932	2,652		
Accumulated Surplus	1,298	6,795	932	2,652		

Scarborough:

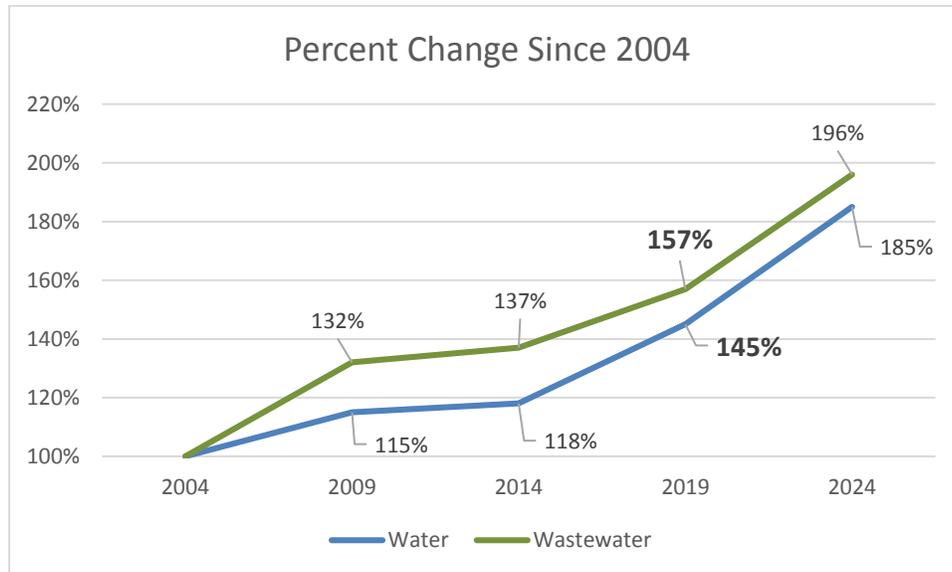
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	\$10,980	\$5,628	\$11,256	\$11,256	\$0	0.0%
Interest Income	39	37	60	97	37	61.7%
Total Revenue	11,019	5,665	11,316	11,353	37	0.3%
Operating Expense	1,251	736	2,034	2,100	66	3.2%
Debt Service	6,140	3,186	6,372	5,911	-461	-7.2%
Renewal & Replace - Indirect	2,679	1,627	3,255	3,342	87	2.7%
Total Expense	10,070	5,549	11,661	11,353	-308	-2.6%
Current Year Surplus (Deficit)	949	116	-345	0		
Prior Year Surplus	5,972	6,921	7,055	7,181		
Accumulated Surplus	6,921	7,037	6,710	7,181		

South Portland:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	\$192,384	\$98,592	\$197,184	\$201,132	\$3,948	2.0%
Interest Income	854	692	1,040	1,828	788	75.8%
Total Revenue	193,238	99,284	198,224	202,960	4,736	2.4%
Operating Expense	109,956	60,233	128,047	135,936	7,889	6.2%
Debt Service	48,940	25,557	51,119	46,475	-4,644	-9.1%
Renewal & Replace - Indirect	19,860	12,731	25,461	25,396	-65	-0.3%
Total Expense	178,756	98,521	204,627	207,807	3,180	1.6%
Current Year Surplus (Deficit)	14,482	763	-6,403	-4,847		
Prior Year Surplus	115,611	130,093	128,881	33,318		
Accumulated Surplus	130,093	130,857	122,478	28,471		

Budget by Fund Trends

The proposed 2019 budget is 57% and 45% higher than 2004 budget for the wastewater funds and water fund, respectively. Between 2004 and 2009, significant bonded capital projects including the connecting the Little Falls area in Windham and Gorham to the Westbrook Regional Treatment facility and upgrades at the treatment facilities. With the additional investment in water main renewal and 407 zone investment, the gap between water and wastewater closed by seven percent in the last 5 years. The gap is projected to continue to narrow in the next 5 years.



Total Expense Budget

	2004	2009	2014	2019	2024
Water	\$17,608,717	\$20,245,019	\$20,817,310	\$25,474,799	\$32,650,478
WW- Cape Elizabeth	1,043,475	1,089,695	1,378,857	1,587,055	1,987,506
WW- Cumberland	498,146	767,586	771,632	915,344	1,015,025
WW- Falmouth	45,721	10,937	15,012	314,521	304,814
WW- Gorham	578,340	1,056,084	1,121,671	1,152,954	1,612,496
WW- Portland	8,481,000	10,951,209	10,982,397	12,862,619	15,477,257
WW- Westbrook	1,920,536	2,474,362	2,645,693	2,639,958	3,882,830
WW- Windham	54,091	338,117	355,253	373,458	516,401
Other Contract Billing	136,834	206,279	189,158	219,160	256,554
Total	\$30,366,860	\$37,139,288	\$38,276,983	\$45,539,868	\$57,703,361

Introduction

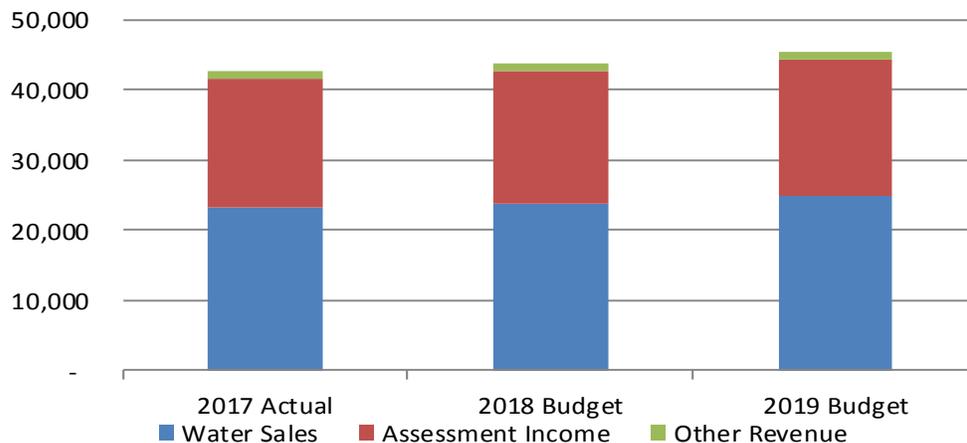
Revenue is obtained from two major sources: payments by individual customers for water services (Water Revenue, 54.5%) and payments from municipalities for wastewater services (Wastewater Assessments, 42.7%). Water revenues in 2019 are projected to increase 4.9% over last year's budget as a result of the full year impact of the 3.8% May 1, 2018 rate increase and the proposed 4.4% rate increase to take effect in May. The Wastewater Assessments for Cape Elizabeth, Cumberland, Falmouth and Portland increased to cover estimated 2019 costs.

Contracted Billing Income (0.47% of budgeted revenue) is revenue paid by the City of South Portland and Town of Scarborough for wastewater billing services.

Other Water and Wastewater revenue (2.3% of budgeted revenue) is derived from other activities, such as interest income, cross connection fees, customer connection and activation fees, jobbing surcharge and septic haulers fees, which are further detailed in this section.

	2018 Actual		2018 Budget	2019 Budget	\$-Diff.	%Diff.
	2017 Actual	Jan-Jun				
Water Sales	\$23,186,245	\$11,062,181	\$23,650,742	\$24,817,595	\$1,166,853	4.9%
Assessment Income	18,418,704	9,501,948	19,003,536	19,448,472	444,936	2.3%
Contracted Billing Income	203,364	104,220	208,440	212,388	3,948	1.9%
Interest Income	276,264	199,477	295,386	505,383	209,997	71.1%
Other Income	712,804	306,554	653,180	553,614	(99,566)	-15.2%
Total Revenues	\$42,797,381	\$21,174,380	\$43,811,284	\$45,537,452	\$1,726,168	3.9%

Total District Revenue
(\$,000)



Water Sales

Water sales consist of:

- **Metered Revenue** from residential, governmental, industrial and commercial customers. Customers are billed a monthly minimum based on meter size, which includes 1 hundred cubic feet (HCF) of water (748 gallons). For amounts greater than 1 HCF, customers pay based on a four-tier declining block. Current member rates are:

Monthly Water Usage:		
From	To	Rate
1 HCF	30 HCF	\$2.35
30 HCF	100 HCF	\$2.02
100 HCF	500 HCF	\$1.78
Greater than 500 HCF		\$1.00

- **Public Fire Protection** revenue from charges to municipalities for hydrants. Eleven communities pay a monthly fee based on the number of the hydrants in the community and proportionate share of water system costs to ensure water is available to fight fires.
- **Private Fire Protection** revenue from charges to private users for hydrants and sprinklers. Customers are assessed a monthly fee based on the service line to the hydrant/sprinkler. The fee is based on proportionate share of water system costs to ensure water is available to fight fires.
- **Other Water Revenue** such as interest on delinquent customer balances and customer penalties.

The 2019 Budget of \$24,817,595 reflects an assumed rate of usage determined on subsequent pages.

Water Sales rates have been adjusted annually. Average rate adjustments of 3.8% and 1% were made on May 2018 and 2017, respectively. Prior to 2016, all water rate adjustments were subject to review and approval by the Maine Public Utilities Commission. Starting in 2016, the District's Board of Trustees can approve rate adjustments solely through their actions. The Board will continue to follow the same public input process before authorizing rate changes.

	2017 Actual	2018 Actual Jan-Jun	2018 Budget	2019 Budget	\$-Diff.	%-Diff.
Metered Revenue	\$20,765,983	\$9,793,540	\$21,168,104	\$22,203,648	\$1,035,544	4.9%
Public Fire Protection	1,344,508	681,389	1,383,918	1,441,506	57,588	4.2%
Private Fire Protection	996,063	517,159	1,003,720	1,102,441	98,721	9.8%
Other Water Revenue	79,691	70,332	95,000	70,000	(25,000)	-26.3%
Total Water Sales	\$23,186,245	\$11,062,420	\$23,650,742	\$24,817,595	\$1,166,853	4.9%

Water Sales - Cost of Service Study

Every 10 years, a cost of service study is completed that compares the revenue generated by each meter revenue customer class – residential, commercial, industrial and government – as well as fire protection with the costs of providing services to those customers. The most common and widely used cost of service or cost allocation process is presented in the American Water Works Association’s manual of practice M1 – Principles of Water Rates, Fees, and Charges. The process consists of several steps to determine the cost of providing service to various classes of customers.

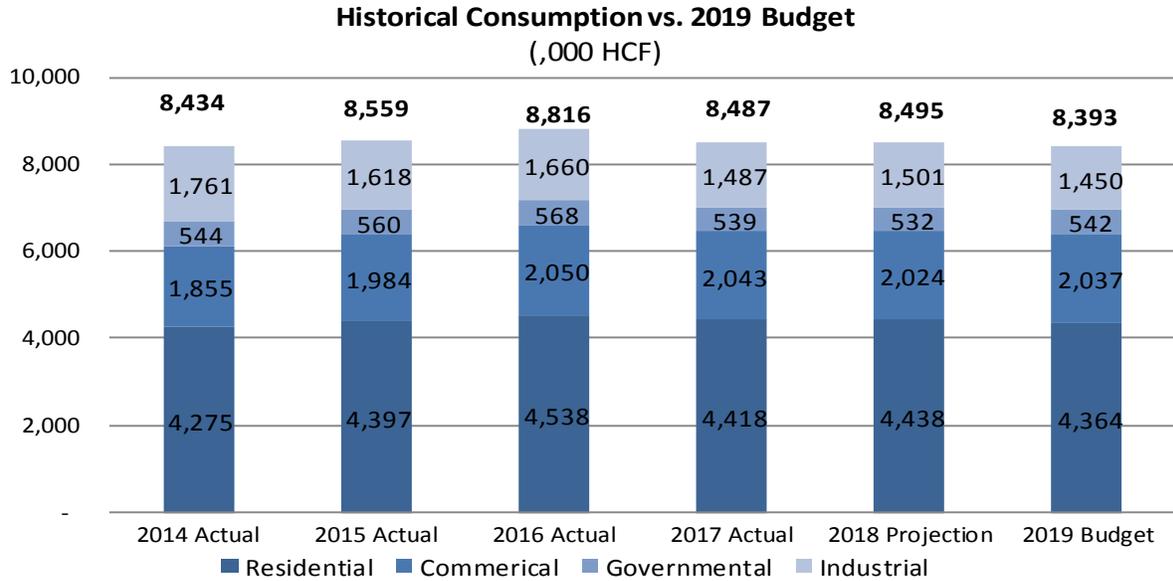
1. Costs are first assigned to various functions such as supply, treatment, pumping and distribution. The District’s accounting system readily provides this functional breakdown.
2. The functional costs are then allocated to various types of service provided by the water utility or cost components. The most common method is termed the “base-extra capacity method”. Under this method, the functional costs are allocated to the categories:
 - Base: costs that vary with the amount of water use, independent of peak demands
 - Extra Capacity: costs that are associated with meeting peak demand requirements
 - Customer: costs that are related to customer service and independent of water use. These are often subdivided into:
 - a. General or billing costs (meter reading, collection, etc.)
 - b. Meter and service costs (cost of meter or service line repair, maintenance and testing)
 - Direct Fire Protection: costs associated with public fire hydrants
3. Lastly, the costs that have been allocated to cost components are distributed to customer classes or groups based on the relative amount of use that each class has of the various cost components.

In general, we have followed the guidance in the AWWA’s M1 Manual to develop the cost of service analysis for the District.

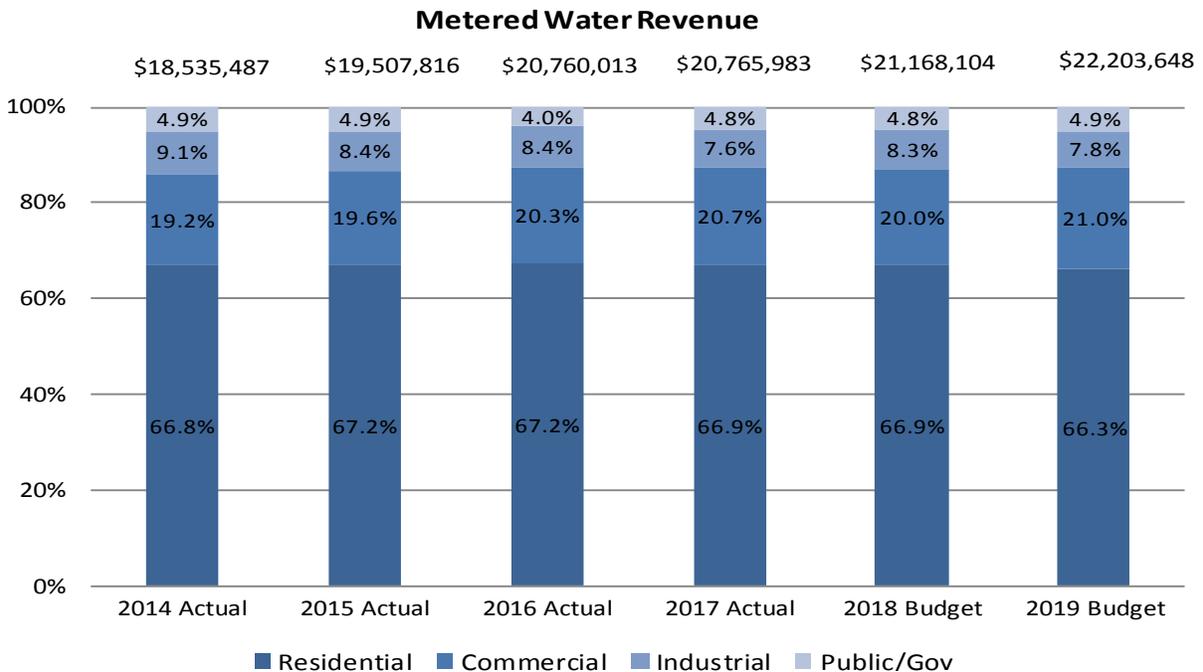
The last study was conducted in 2016. The study indicated that industrial and commercial customers were not paying the full cost of service. Because the rate change needed to those customers would create rate shock and impact economic development, a policy was established to gradually increase the rates impacting those customers over subsequent rate adjustments. The Board confirmed continuing the practice done since 2007 of increasing those rates at a rate of 150% of the rate adjustment for residential customers.

Water Sales – Metered Revenue

Metered water revenue has risen from \$18.5 million in 2014 to the budgeted amount of \$22.2 million (16.6% increase). The rise in revenue was the result of rate increases offset by lower metered water usage. The District measures metered consumption by four customer classes: Residential, Commercial, Industrial, and Governmental/Public. The consumption patterns of each of these customer classes vary from one another and these variations have been taken into consideration in estimating the consumption used for the budget (see detailed discussion on subsequent pages).



The ratio of each customer class as a percentage of all sales (shown below) has been fairly stable.

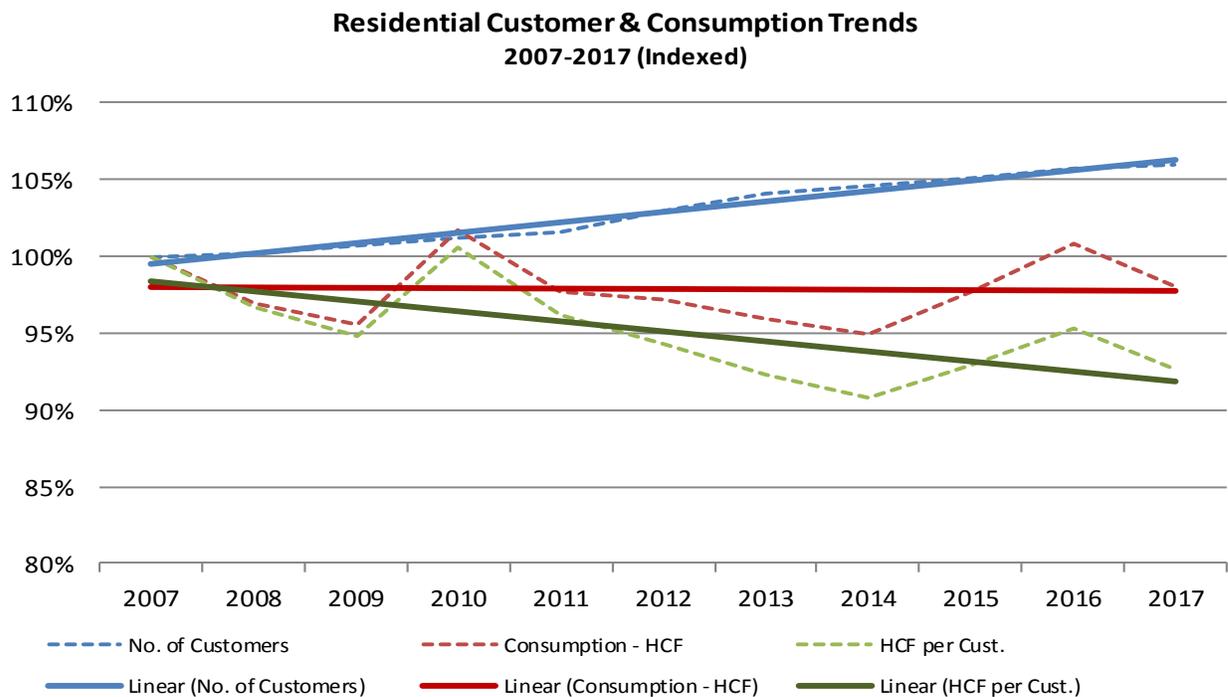


Water Sales – Metered Revenue - Consumption

Residential

Residential consumption makes up about 52% of total metered consumption and generates roughly 67% of the District's total metered water revenue. The two segments of residential consumption are monthly billed and seasonal customers. Monthly billed customers receive bills year round on a monthly basis. Seasonal customers receive a bill in the spring for the minimum consumption level and a bill in the fall for any excess usage above the minimum.

For monthly customers, consumption has been calculated by determining the core level of consumption, then estimating the amount of additional usage that largely occurs during the summer months. The monthly core level was reached by taking the average of the lowest three months of each year in the sample data and annualizing that value.



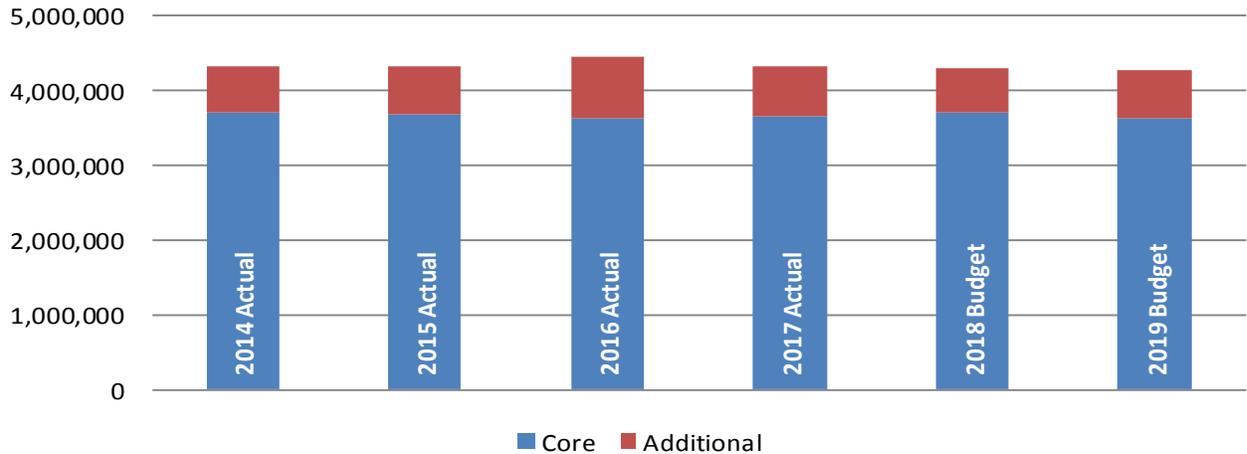
As shown above, overall consumption (red line) has been slowly declining over the last 10 years, even though the number of customers (blue) has been increasing. Therefore, the consumption per customer (green) has also been declining. These trends were taken into account when estimating the residential core usage for 2019.

The additional usage was determined by averaging the percentage of additional consumption over the core in the sample years. For the 2019 budget, the core consumption was approximately 3.6 million HCF (hundred cubic feet) and the additional usage was 18% of the core. This falls in line with historical data.

Water Sales – Metered Revenue - Consumption

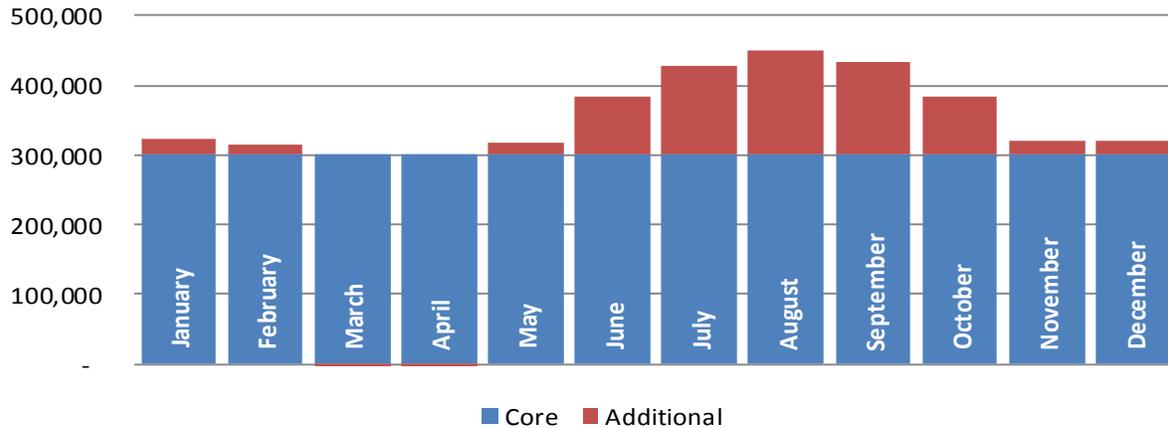
Residential (continued)

**Residential Consumption - Monthly Customers
2014 - Present**



The monthly additional consumption was determined based on the average monthly consumption from a rolling three-year period ending December 2017. Approximately three-fourths of the additional consumption is used between the months of June through September.

**Residential Consumption - Monthly Customers
2019 Budget (HCF)**



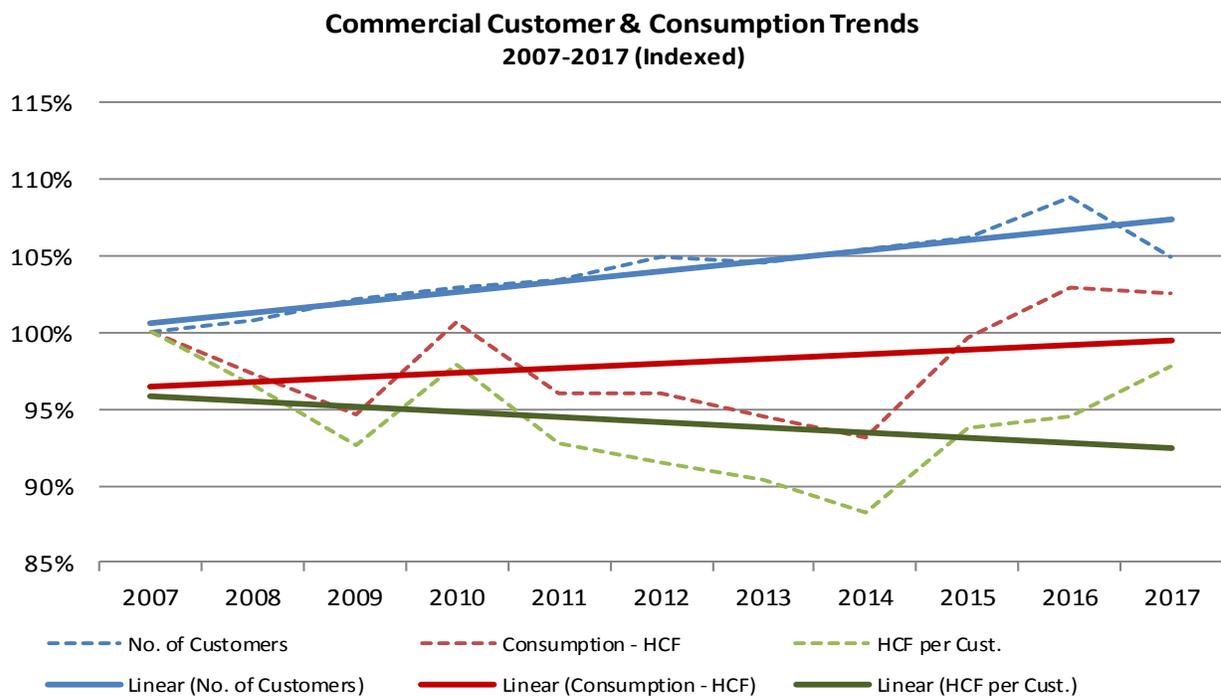
Consumption by seasonal customers makes up only 2.23% of total residential consumption. Residential seasonal consumption for the budget was based on a five-year period from 2013-2017 and is approximately 97,000 HCF for the year.

Water Sales – Metered Revenue - Consumption

Commercial

In estimating commercial usage, consumption was also split between monthly billed and seasonal customers, similar to the residential class.

In the same manner as residential consumption, monthly customer consumption has been calculated by determining the core level of consumption, then estimating the amount of additional usage. The monthly core level was reached by taking the average of the lowest three months of each year in the sample data and annualizing that value. The rate of increase in customers is greater for this class than residential, but the decrease in consumption per customer is also larger. However, overall consumption has been trending up slightly and this was factored into establishing a core usage amount for the commercial class for 2019.

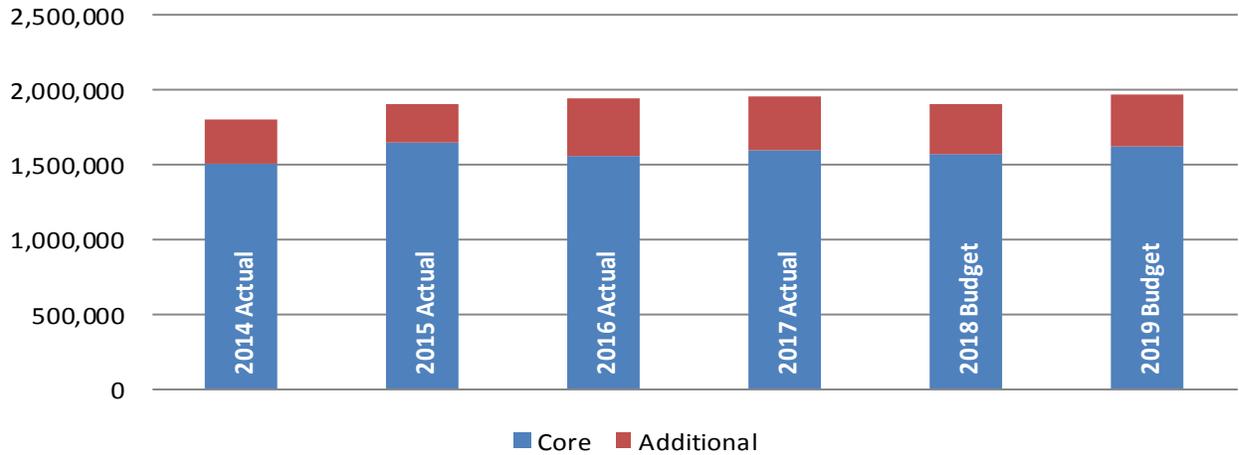


Additional usage was then determined by averaging the percentage of additional consumption over the core in the sample years. For the 2019 budget, the core consumption was raised to 1.59 million HCF from the 1.57 million HCF budgeted for 2018. The additional usage budgeted for 2019 is 23% of the core.

Water Sales – Metered Revenue - Consumption

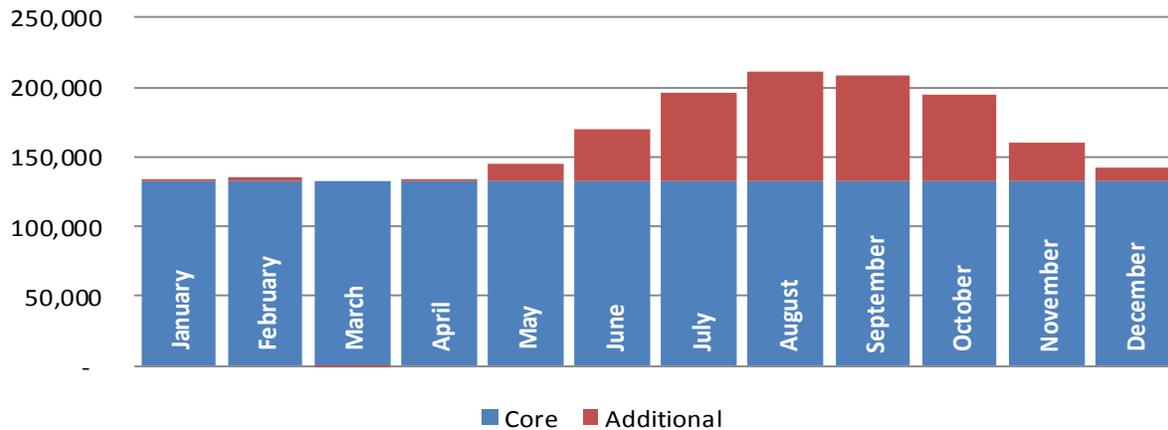
Commercial (continued)

**Commercial Consumption - Monthly Customers
2014 - Present**



The monthly additional consumption was determined based on the average monthly consumption from a rolling three-year period ending December 2017. Approximately two-thirds of the additional consumption is used between the months of June through September.

**Commercial Consumption - Monthly Customers
2019 Budget (HCF)**



Consumption by seasonal customers makes up only 3.5% of total commercial consumption. Commercial seasonal consumption for the budget was based on a five-year period from 2013-2017 and is approximately 70,000 HCF for the year.

Water Sales – Metered Revenue - Consumption

Industrial

Historically, approximately 90% of industrial usage has come from just five customers: Calpine, Texas Instruments, Sappi Fine Paper, ON Semiconductor, and B&G Foods. The District makes an effort every year to contact these customers to get an estimate of their expected water needs for the coming year. Overall Industrial usage is budgeted at 1.45 million HCF for 2019.

Calpine

The Calpine power plant is the District's largest customer. Located in Westbrook, Calpine uses two combustion turbines routed to two heat recovery steam generators, that provide steam to one steam turbine. This facility produces enough electric power to meet the needs of more than 500,000 homes throughout New England. The energy market can significantly impact production at the plant. In 2017, Calpine had some substantial breaks in usage when the plant was offline for planned maintenance. The trend for Calpine has always been under budget so we will reduce the 2019 budget accordingly. We have lowered their budget by about 200k HCF to be in line with 2017 and 2018 actual usage.

Texas Instruments

Texas Instruments is a company that designs and makes semiconductors that are sold to electronics designers and manufacturers globally. In 2011, the company bought National Semiconductor, a semiconductor manufacturer specializing in analog devices and subsystems that operates a wafer fabrication plant in South Portland. 2019 usage is expected to be about the same as 2018 with a lower consumption total of 280k compared to the past five years average of around 350k HCF.

Sappi Fine Paper

Sappi Fine Paper North America is the leading producer and supplier of coated fine paper, pulp and release paper in the United States. The company has two facilities in Westbrook, a mill and a technology center. The mill is primarily a production facility for specialty release papers and films. The technology center is equipped with two state-of-the-art pilot coaters that enable prototype development for both coated fine papers and specialty release paper. We expect 2019 to follow along the lines of 2018 actual usage.

ON Semiconductor (formerly Fairchild Semiconductor)

In September 2016, Fairchild Semiconductor was purchased by ON Semiconductor. The company still operates as an electronics component manufacturer, making tiny silicon chips used in a variety of industries, including cellular technology, home goods and automotive applications. ON operates a manufacturing facility in Portland and a business office in South Portland. They have been investing in the plant and expect production to remain the same for at least the next couple of years.

B&G Foods

B&G Foods and its subsidiaries manufacture, sell, and distribute a diversified portfolio of high-quality, branded shelf-stable foods across the United States, Canada and Puerto Rico. They own B&M Beans that operates a bean cannery in Portland. 2019 usage is expected to be about the same as 2018 but has seen a slow, gradual reduction over the past 10 years.

Water Sales – Metered Revenue - Consumption

Public/Governmental

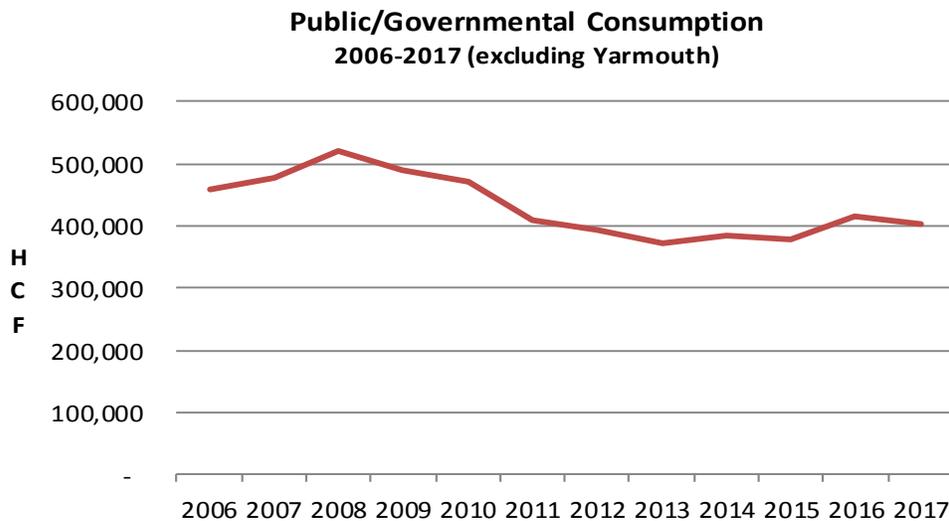
Yarmouth Water District

Approximately 30% of public/governmental consumption comes from usage by the Yarmouth Water District that provides water almost entirely to the Wyman Power Plant on Cousins Island. Wyman Power Plant is a spot producer of power for the Northeast and is only used during peak energy demand because, as an oil-fired generator, it has become obsolete. Because of low oil prices and the high price of electricity in the Northeast, the plant remains online.

Wyman rarely ran in recent years because it competes with natural gas fired units in New England. They generate roughly half the region's power and are much cheaper to operate. Due to low oil prices, the plant was in operation more than expected in 2015. We are creating the budget off of 2018's actuals through June and doubling it which has been higher than the last couple years.

Other Public/Governmental Customers

Public/Governmental consumption has been in decline since the economic downturn. Government entities have sought out ways to decrease expenditures including their water and sewer bill. As a result, it is not anticipated that this decrease in consumption will return. In 2019 we have predicted that the usage will continue to fall similar to last year.



Water Sales – Metered Revenue – Rates

Water Rate Schedule

A 4.4% increase is proposed to be implemented effective 5/1/2019. Board of Trustees will review and approve any rate adjustment in the first quarter of 2019.

Current Rates: Effective 05/01/2018

Meter or Service Line Size	Member Rate	Non-member Rate
Private Fire Monthly Fee		
2	\$3.75	\$4.30
3	8.37	9.62
4	14.94	17.18
6	35.71	41.06
8	59.79	68.73
10	93.40	107.47
12	134.49	154.67
16	239.09	274.96
Minimum Monthly Charges		
5/8	\$9.40	\$10.81
3/4	11.08	12.72
1	14.37	16.55
1 1/2	24.73	28.43
2	35.62	40.95
3	64.63	74.30
4	97.29	111.87
6	187.97	216.15
8	296.77	341.30
10	429.70	494.16
12	568.82	654.13
Low income	2.36	2.71
Monthly Volume Charge		
First 100 Cf	minimum	minimum
Next 2,900 Cf	\$2.35	\$2.71
Next 7,000 Cf	2.02	2.33
Next 40,000 Cf	1.78	2.04
Over 50,000 Cf	1.00	1.15

Typical Customer Increases		Current	Proposed 4.4%	\$	%
Residential (per month)	.62" meter, 7 HCF	\$23.50	\$24.39	\$0.89	3.79%
Commercial (per month)	.75" meter, 80 HCF	180.23	188.75	8.52	4.73%
Small Industrial (per month)	2" meter, 1,300 HCF	1,757.17	1,857.46	\$100.29	5.71%
Large Industrial (per month)	8" meter, 56,000 HCF	56,718.32	60,115.10	3,396.78	5.99%
Sprinkler (per year)	6" meter	428.52	447.2	\$18.68	4%
Public Fire (per year)		1,400,604	1,461,652	61,048	4.36%
Seasonal (per year)	.62" meter	225.03	234.84	\$9.81	4.36%

Water Sales – Metered Revenue - Rates

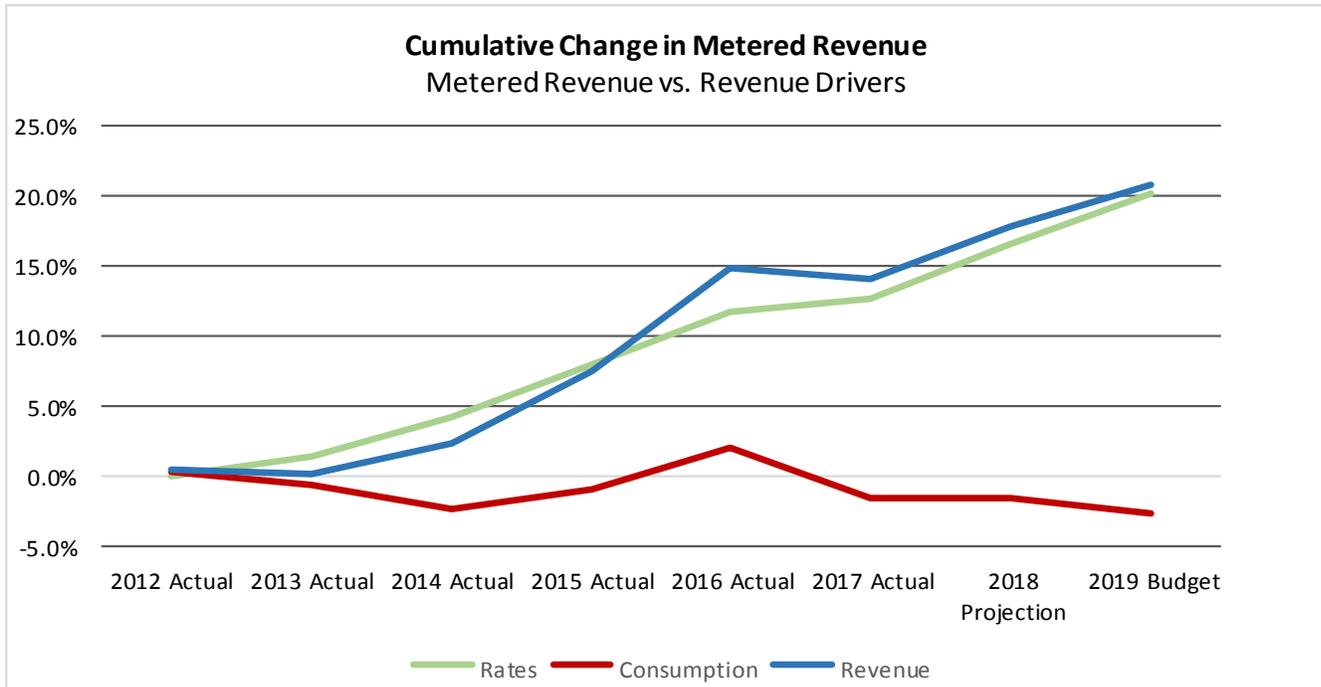
Water Rate Schedule (continue)

Water rates were unchanged from 2002 through 2006. Rate changes since that time were:

<u>Effective Date</u>	<u>Metered Rates</u>	<u>Public Fire Projection Rates</u>
01/01/07	3.5% increase	11.0% increase
01/01/08	3.8% increase	unchanged
01/01/09	7.0% increase	3.0% increase
05/01/10	3.6% increase	3.5% increase
05/01/11	2.0% increase	2.0% increase
05/01/13	1.3% increase	1.5% increase
05/01/14	2.9% increase	3.0% increase
05/01/15	3.8% increase	3.8% increase
05/01/16	3.7% increase	3.7% increase
05/01/17	1.0% increase	1.0% increase
05/01/18	3.8% increase	3.75% increase
05/01/19*	4.4% increase	4.36% increase

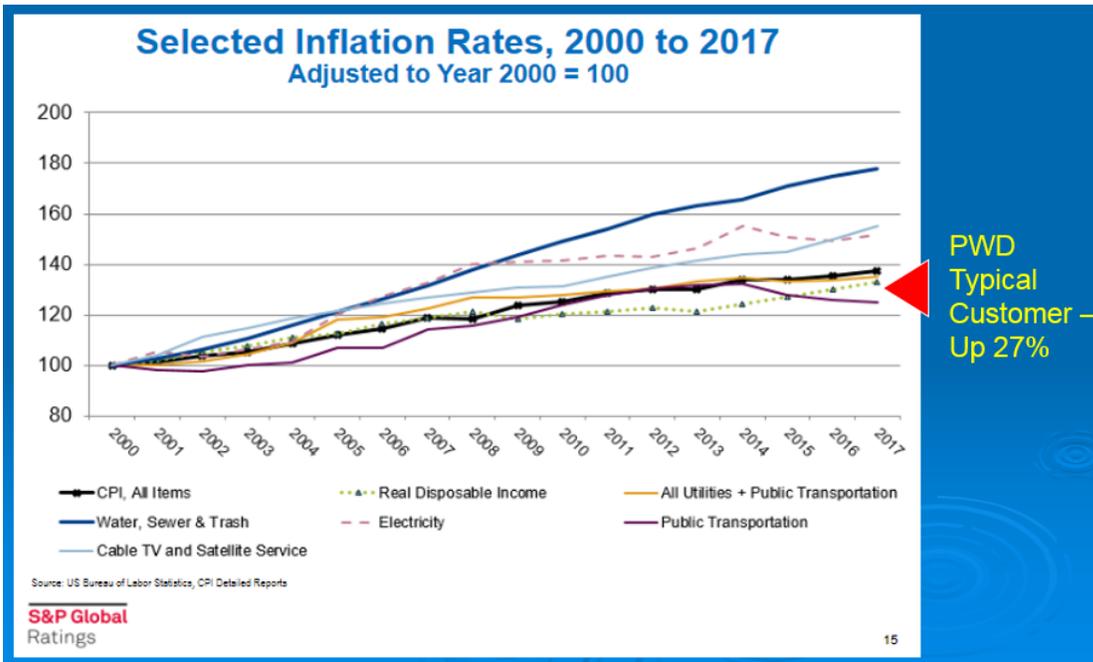
* = Proposed increase, subject to Board of Trustees approval.

Changes in metered revenue are strongly correlated to changes in rates. There is also a relationship between metered revenue growth and changes in consumption. The graph below reflects this correlation. The revenue line runs closely to rates, while changes in its slope correspond to changes in consumption. The 3.1% increase in water revenue (2018 Projection vs. 2019 Budget) was the result of a 3.8% increase in metered rates and a 1.2% decrease in forecasted consumption.



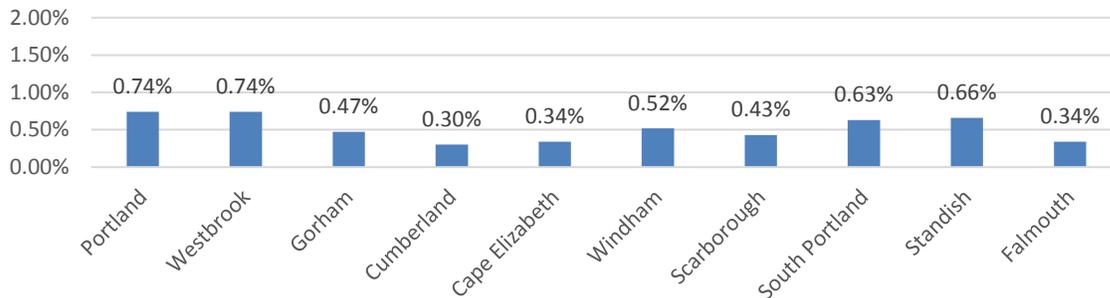
Water Sales – Rate Affordability Study

Though residential water rate adjustments since 2000 are below the change in the consumer price index (CPI), the past 5 years rate adjustments have exceeded CPI (2.7% vs 1.6%) and the 5-year financial forecast indicates an average annual rate adjustment of 4.5%. Higher rate adjustments are needed to fund necessary replacements and upgrade to water infrastructure. As the chart indicates below, Portland Water District’s rate adjustments have been lower than other water utilities since 2000 despite significantly investing in our infrastructure. The operational efficiencies that enabled the lower rate adjustments will not be available in future years and rates adjustments will trend closer to the industry average.



With residential rates increasing, a study was conducted to understand the financial burden water rates are having on our customers. An industry benchmark compares a typical bill with the average usage for a month in a household of 4 to the median household income (MHI). From many studies and our purposes, a factor of 2% and under MHI is considered affordable.

Affordability as a % of MHI
(Median Household Income)

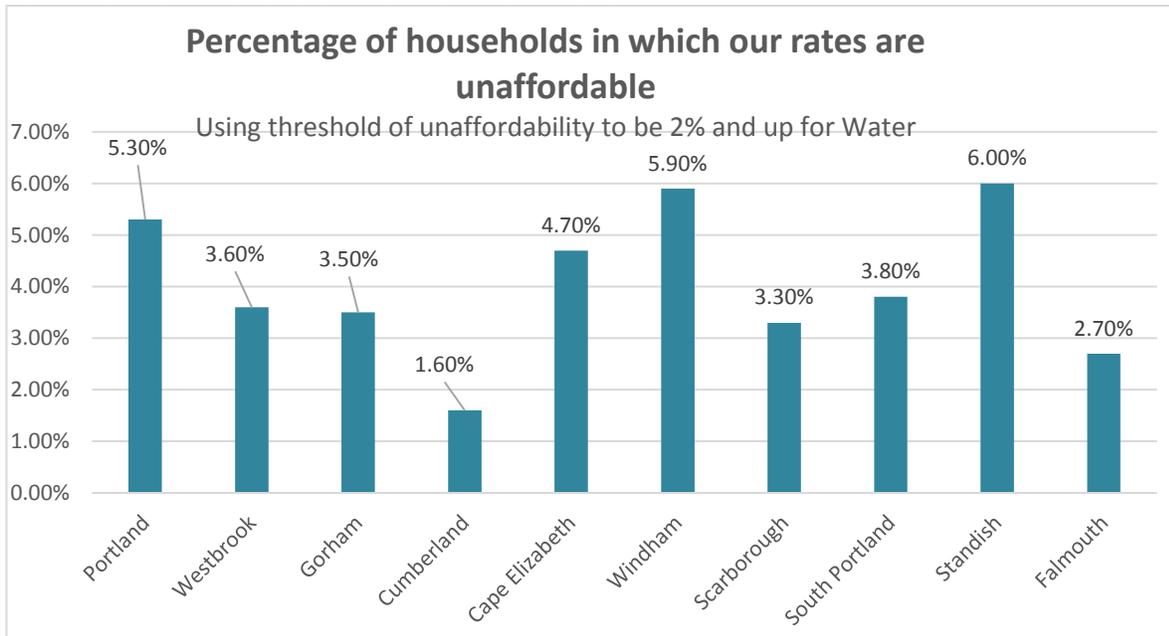


Water Sales – Rate Affordability Study (continued)

The table below indicates most customer’s water bills are affordable (below 2% of MHI) with only customers in the lowest income and larger households reaching unaffordable levels (orange and red colors).

Water											
Household Income	Value	Annual Bill as Percentage of Household Income by Household Size									
		HCF	2	5	7	10	12	14	17	19	22
		Household Size	1	2	3	4	5	6	7	8	9
20th Percentile	\$ 16,000		0.85%	1.37%	1.71%	2.22%	2.56%	2.91%	3.42%	3.76%	4.27%
40th Percentile	\$ 34,700		0.39%	0.63%	0.79%	1.02%	1.18%	1.34%	1.58%	1.73%	1.97%
Median	\$ 44,500		0.31%	0.49%	0.61%	0.80%	0.92%	1.04%	1.23%	1.35%	1.54%
60th Percentile	\$ 55,800		0.24%	0.39%	0.49%	0.64%	0.74%	0.83%	0.98%	1.08%	1.23%
80th Percentile	\$ 92,200		0.15%	0.24%	0.30%	0.39%	0.44%	0.50%	0.59%	0.65%	0.74%

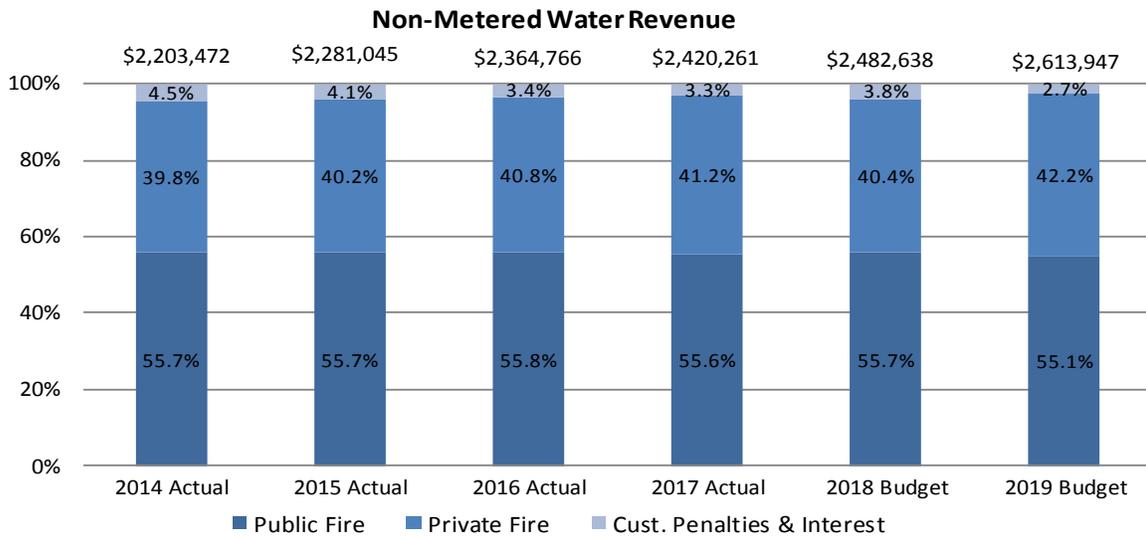
Using an alternative tool (Affordability Assessment Tool created by the University of North Carolina), an estimated number of households having unaffordable water bills was calculated. The tool uses information from the 2016 U.S. Census Bureau Website.



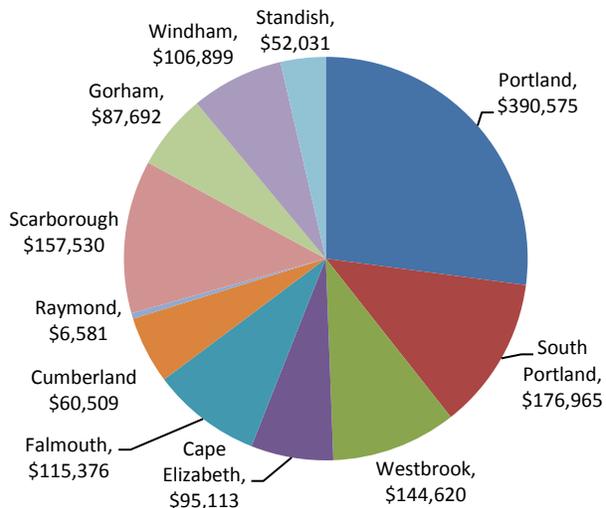
To assist low-income households, the District offers 2 different programs. Qualifying households are given a \$8 discount on each month’s bill. Customers can also participate in the ‘conservation program’ that provides and installs low flow devices to reduce the customer water consumption and ultimately their bill.

Water Sales - Non-Metered Revenue

Non-metered water revenue has risen from \$2.2 million in 2014 to the budgeted amount of \$2.6 million (18.1%) for 2019. The rise in fire service revenue was the result of rate increases while the decline in customer penalties and interest corresponds to a decrease in the District’s aged receivables balance.



Public Fire Protection Revenue



Allocated based on number of hydrants and inch feet of mains in each municipality.

Private Fire Protection Revenue

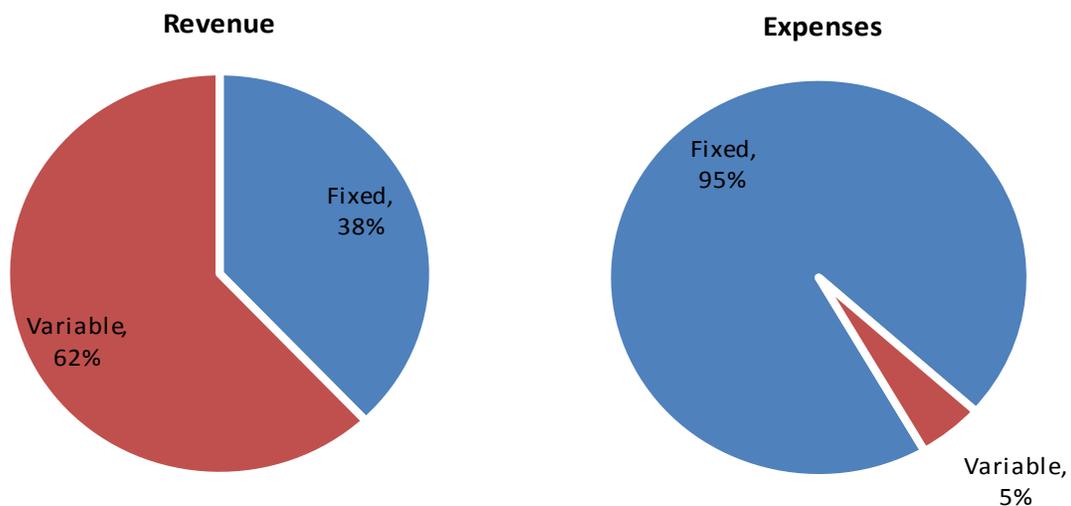
Service Line Size (inches)	Annual Fee	Number of Customers
2	\$ 45.00	331
3	\$ 100.44	0
4	\$ 179.28	219
6	\$ 428.52	1205
8	\$ 717.48	583
10	\$ 1,120.80	38
12	\$ 1,613.88	22
16	\$ 2,869.08	1

Allocated between service line sizes based on the relative demand on the water system.

Water Sales - Long-Term Considerations

Revenue & Expense: Fixed vs. Variable

As shown below, approximately 38% of the District's water revenue is fixed, generated from minimum charges on metered accounts and fire protection charges. The remaining 62% varies depending on consumption levels. In comparison, 95% of the District's expenses are fixed, largely infrastructure costs.



Slow Customer Growth

Population growth in the District's service area is lower than in other parts of the country and is not expected to increase. In recent years, customer growth has been less than 1% per year.

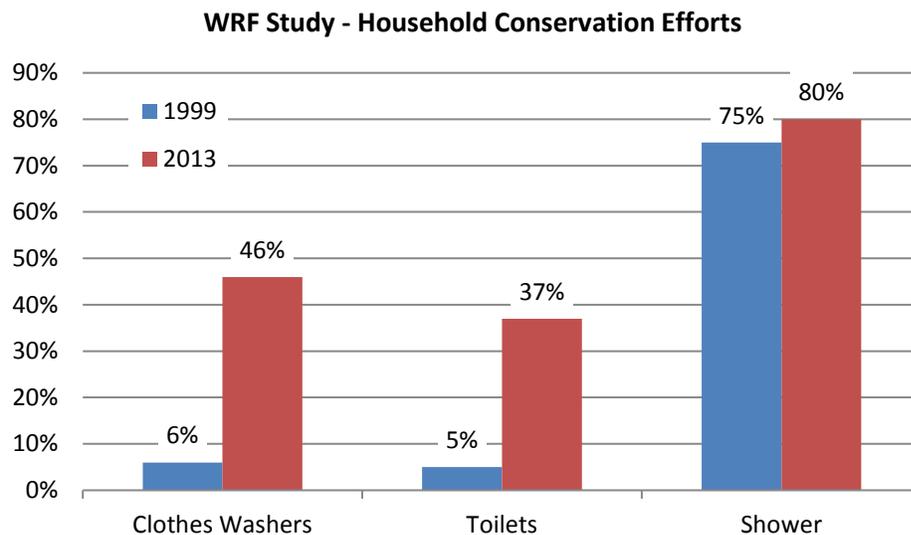
Cost of Service Gap

The last Cost of Service Study was completed in 2016. The study indicated that industrial/commercial customers generate less revenue than it costs to serve them. The Board requested the gap be closed over future rate adjustments by increasing revenue generated by industrial/commercial customers at higher increments. The proposed rate schedule will continue to have greater impact on larger customers by a factor of 150% compared to smaller ones.

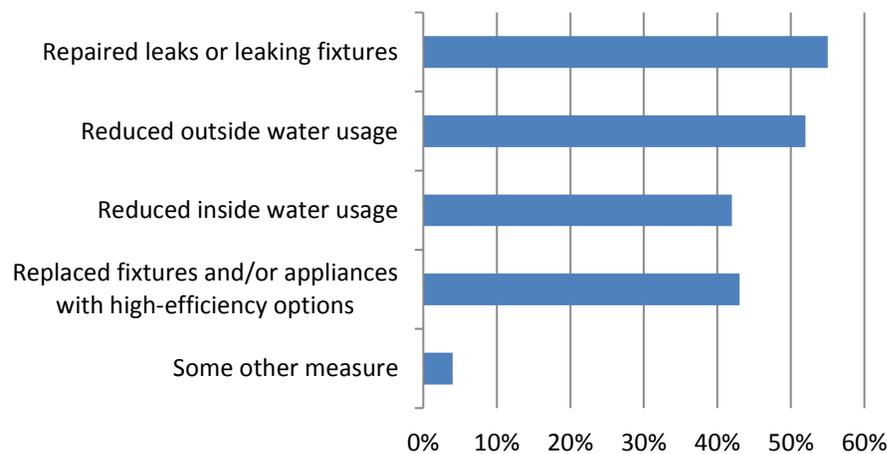
Water Sales - Long-Term Considerations (continued)

Decline in Consumption

There has been a nationwide trend in recent years toward lower consumption levels. This trend also appears in the District's consumption data. Some factors contributing to this decline are more efficient appliances and fixtures, increasing water/ sewer rates, and a decrease in average household size. A recent Water Resources Foundation Study found a significant increase in households using more water efficient fixtures and appliances.



On a recent survey the District's customers were asked, "In the past year, have you taken any of the following measures to reduce your water usage?" The graph below shows customers' responses to that question:



Wastewater Assessment & Contracted Billing Income

Wastewater Assessments are amounts payable by each municipality for wastewater services provided by the District. The assessments cover the operating and debt service costs of operating wastewater facilities maintained by the District. The assessments are billed in monthly installments. In 2019, the assessments for each municipality were increased excluding Cumberland (see table below).

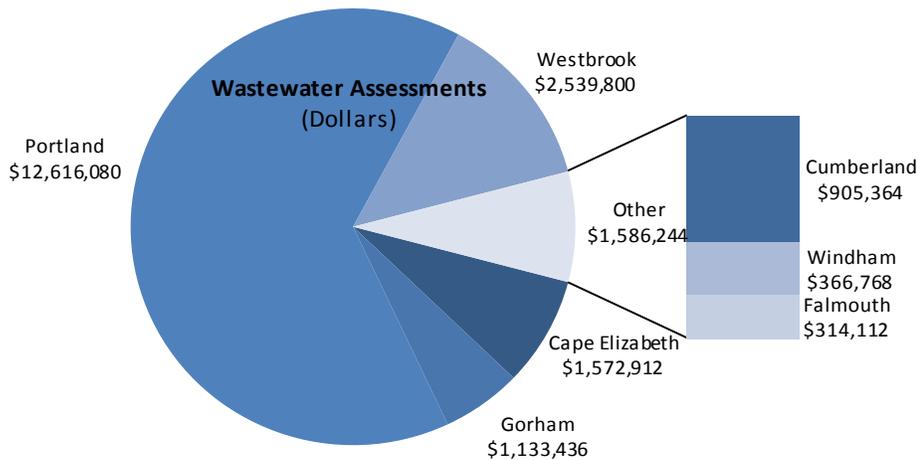
Wastewater Assessments

	2018 Actual		2018 Budget	2019 Budget	\$-Diff.	%Diff.
	2017 Actual	Jan-Jun				
Cape Elizabeth	\$1,468,692	\$769,920	\$1,539,840	\$1,572,912	\$33,072	2.1%
Cumberland	844,584	452,862	905,364	905,364	-	0.0%
Falmouth	263,604	155,028	310,056	314,112	4,056	1.3%
Gorham	1,106,148	553,074	1,106,148	1,133,436	27,288	2.5%
Portland	11,841,972	6,124,212	12,248,424	12,616,080	367,656	3.0%
Westbrook	2,533,176	1,266,588	2,533,176	2,539,800	6,624	0.3%
Windham	360,528	180,264	360,528	366,768	6,240	1.7%
	\$18,418,704	\$9,501,948	\$19,003,536	\$19,448,472	\$444,936	2.3%

Contracted Billing Income is revenue paid by municipalities for wastewater billing services provided. Scarborough and South Portland operate and maintain their own wastewater collection and treatment systems. The District only provides billing-related services for those communities.

Contracted Billing Income

	2018 Actual		2018 Budget	2019 Budget	\$-Diff.	%Diff.
	2017 Actual	Jan-Jun				
Scarborough	10,980	5,628	11,256	11,256	-	0.0%
South Portland	192,384	98,592	197,184	201,132	3,948	2.0%
	\$203,364	\$104,220	\$208,440	\$212,388	\$ 3,948	1.9%



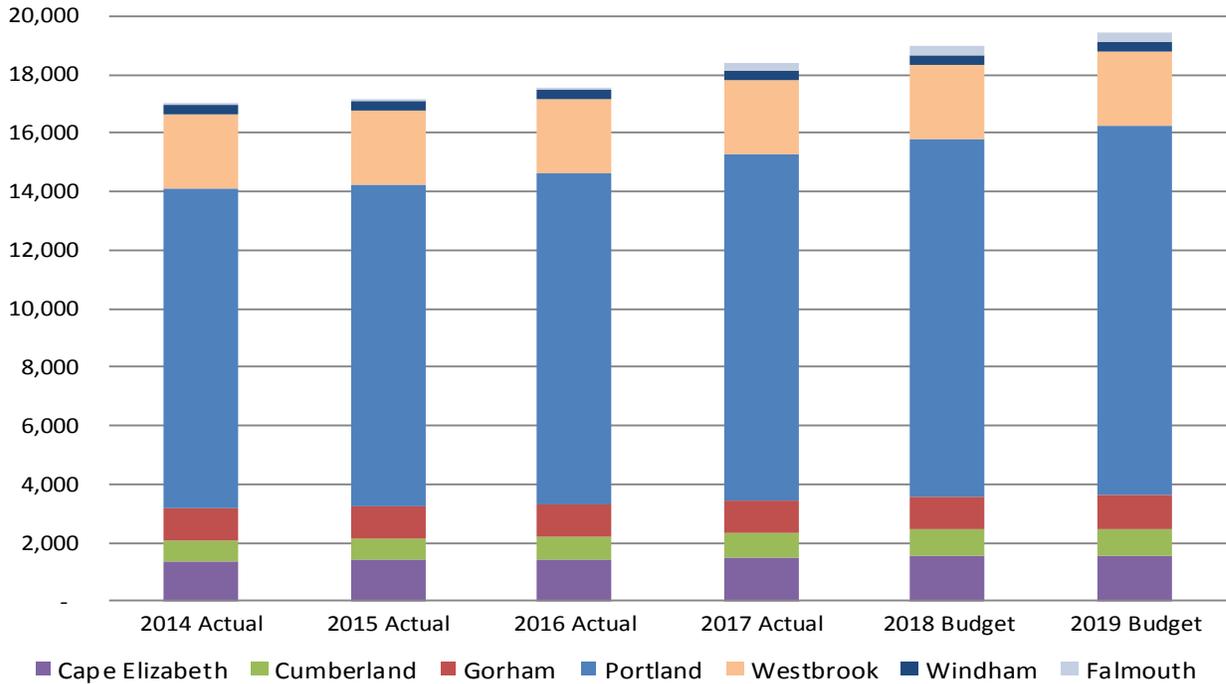
Wastewater Assessments Revenue Trend

Wastewater assessments rose from \$16.9 million in 2014 to a budgeted \$19.4 million in 2019 (an increase of 14.5%). While operating costs did increase over this time period, the majority of the increases were due to capital projects done to upgrade existing wastewater facilities.

Wastewater Assessments by Fund:

	Cape Eliz.	Cumberland	Gorham	Portland	Westbrook	Windham	Falmouth	Total
2014 Actual	1,377,252	731,784	1,106,148	10,872,204	2,533,176	351,756	15,012	16,987,332
2015 Actual	1,412,112	731,784	1,106,148	10,981,308	2,533,176	351,756	15,012	17,131,296
2016 Actual	1,443,408	750,072	1,106,148	11,308,040	2,533,176	351,756	36,012	17,528,612
2017 Actual	1,468,692	844,584	1,106,148	11,841,972	2,533,176	360,528	263,604	18,418,704
2018 Budget	1,539,840	905,364	1,106,148	12,248,424	2,533,176	360,528	310,056	19,003,536
2019 Budget	1,572,912	905,364	1,133,436	12,616,080	2,539,800	366,768	314,112	19,448,472

Assessments by Fund (2014-Present)
(\$,000)



Current Municipal Wastewater Rates

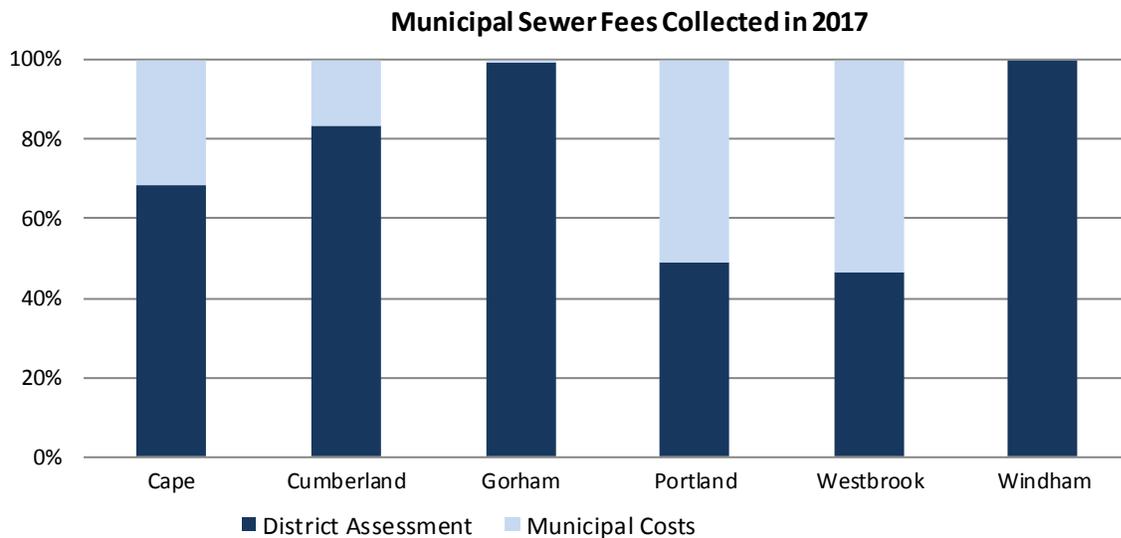
Wastewater rates are established by each municipality. The rates are designed to cover the municipal costs, including the District’s annual assessment. The table below indicates the municipal sewer fees for municipalities for whom the District provides billing services. These fees are included on the monthly bill, which includes the District’s water fees. Customers remit their payments for both water and sewer fees to the District. On a weekly basis, the sewer fees are then remitted to the municipalities. Once a month, the municipality pays 1/12th of the annual assessment to the District from these sewer fees.

Sewer Rates Effective 7/01/2018

	Minimum HCF	Minimum Charge	Additional HCF
Portland	1	\$9.95	\$9.95
Cumberland	0	36.92	5.52
South Portland	1	5.10	5.10
Cape Elizabeth	1	49.50	5.68
Westbrook	1	11.13	6.13
Gorham	1	13.74	6.29
Windham	5	48.84	3.24

HCF= Hundred Cubic Feet (748 gallons)

The chart below indicates the percent of sewer fees collected in 2017 that the municipalities used to pay the District’s assessment and their internal costs. In 2017, Windham’s sewer fees were less than the District’s assessment by \$21,888. The shortfall was covered by the town’s prior year surplus or general fund appropriation.



Interest Income

The District's investment policy limits investments to US Government obligations, certificates of deposit that are fully insured or collateralized, and other similar issues with the goal of protecting the District's principal balances. The budgeted rate of return on investments was based on the current annual returns as of August 2018 and cash balances as of June 2018. Rates of return have been trending upward since 2016.

In 2008, the Windham fund purchased assets from the Westbrook fund. This purchase was funded by a loan between funds of \$264,733 and has an average interest rate of 4.395%. Westbrook will receive \$5,383 from that loan in 2019.

	2017 Actual	2018 Actual Jan-Jun	2018 Budget	2019 Budget	\$-Diff.	%-Diff.
Water Fund	\$149,771	\$109,117	\$151,440	\$285,521	\$134,081	88.5%
Wastewater Operating Funds:						
Cape Elizabeth	6,889	5,528	7,990	14,143	6,153	77.0%
Cumberland	5,632	3,894	6,768	9,980	3,212	47.5%
Falmouth	1,875	482	261	409	148	56.7%
Gorham	11,445	7,708	13,030	19,518	6,488	49.8%
Portland	59,490	41,335	67,800	104,939	37,139	54.8%
Westbrook	36,546	28,073	42,867	62,258	19,391	45.2%
Windham	3,723	2,611	4,130	6,690	2,560	62.0%
	125,600	89,631	142,846	217,937	75,091	52.6%
Contracted Billing:						
Scarborough	39	37	60	97	37	61.7%
South Portland	854	692	1,040	1,828	788	75.8%
	893	729	1,100	1,925	825	75.0%
Total	\$ 276,264	\$ 199,477	\$ 295,386	\$ 505,383	\$ 209,997	71.1%

Other Income

Other revenues consist of fees charged for various other services including fees related to new water assets, new account setups, work done for outside parties and the acceptance of septage. The specific fees are outlined below:

Revenue Type	Revenue Description
Cross Connection Fees	Fees collected for work relating to the inspection of water backflow devices.
Customer Connection Fees	Application fees for new mains, services and meters.
Customer Activation Fees	Fees for new account activations.
Jobbing Revenue	Revenue for work performed by District employees that is billable to outside parties.
Septage Hauler Fees	Fees from outside septage haulers for the treatment of wastewater delivered to District wastewater treatment facilities.
Wastewater Misc. Income	Treatment services provided at the Westbrook Regional Wastewater Treatment Facility for Portland's Riverside area per inter-municipal agreement.

Water Fund:	2017 Actual	2018 Actual	2018 Budget	2019 Budget	\$-Diff.	%Diff.
		Jan-Jun				
Cross Connection Fees	\$35,831	\$42,356	\$40,300	\$35,800	(\$4,500)	-11.2%
Customer Connection Fees	72,625	37,386	79,400	72,600	(6,800)	-8.6%
Customer Activation Fee	79,024	32,244	78,800	79,000	200	0.3%
Jobbing Surcharge	80,624	22,811	68,100	66,914	(1,186)	-1.7%
Miscellaneous Income	<u>149,252</u>	<u>107,088</u>	<u>119,080</u>	<u>119,800</u>	<u>720</u>	<u>0.6%</u>
Total Water Division	\$417,357	\$241,885	\$385,680	\$374,114	(\$11,566)	-3.0%

Wastewater Funds:	2017 Actual	2018 Actual	2018 Budget	2019 Budget	\$-Diff.	%Diff.
		Jan-Jun				
Septage - Gorham	\$10,945	\$761	\$17,600	\$0	(\$17,600)	-100.0%
Septage - Portland	141,625	56,988	101,800	141,600	39,800	39.1%
Septage - Westbrook	64,704	6,463	111,500	-	(111,500)	-100.0%
Septage - Windham	2,189	157	3,500	-	(3,500)	-100.0%
Miscellaneous Income	<u>38,055</u>	<u>300</u>	<u>33,100</u>	<u>37,900</u>	<u>4,800</u>	<u>n/a</u>
Total Wastewater Division	257,517	64,669	267,500	179,500	(88,000)	-32.9%
Total Water & Wastewater	\$674,874	\$306,554	\$653,180	\$553,614	-\$99,566	-15.2%

Fund Balance

Fund Balance, or Surplus, is the excess of revenues over expenses on a budgetary basis (see Financial Policy section for description of differences between budgetary and generally accepted accounting principles). In addition to the surplus fund balance, a portion of water net income is reserved in a watershed protection land fund. Additionally, the Board ordered that the proceeds from the sales of certain surplus properties be reserved in the Land Cash Reserve used for watershed protection. In 2009, the District's Board of Trustees (BOT) adopted a policy setting targets for operating fund balances (25% of net budget) and the watershed protection reserve (15% of water revenues). These policies do not apply to the Contracted Billing municipalities.

It is projected that all of the funds with the exception of Portland (24.1%) and Windham (23.1%) will be above the operating fund target of 25.0% at the end of 2019.

The balances of the renewal and replacement funds and water main capital reserve fund are listed in the Capital Finance section.

Water & Wastewater Fund Operating Surpluses (Goal 25.0%)

	Balance 1/1/2018	Projected 2018	Budget 2019	Balance 12/31/2019	Target Balance	Projection %
Water	\$5,990,955	\$1,005,115	(\$125,407)	\$6,870,663	\$6,368,700	27.0%
Cape Elizabeth	398,772	12,190	-	410,962	\$396,764	25.9%
Cumberland	328,678	(48,763)	-	279,915	\$228,836	30.6%
Gorham	310,000	54	-	310,054	\$288,239	26.9%
Portland	3,150,009	(43,997)	-	3,106,012	\$3,215,655	24.1%
Westbrook	844,745	(92,511)	-	752,234	\$659,990	28.5%
Windham	109,100	(22,705)	-	86,395	93,365	23.1%
	\$11,132,259	\$809,383	(\$125,407)	\$11,816,235	\$11,251,549	26.3%

Falmouth & Contracted Billing Operating Surpluses:

	Balance 1/1/2018	Projected 2018	Budget 2019	Balance 12/31/2019
Falmouth	\$1,298	\$1,354	\$0	\$2,652
Scarborough	6,921	260	-	7,181
So. Portland	130,093	(96,775)	(4,847)	28,471
	\$138,312	(\$95,161)	(\$4,847)	\$38,304

Combined Surpluses: \$11,270,571 \$714,222 (\$130,254) \$11,854,539

Watershed Protection Land Funds (Goal 15.0%)

	Balance 1/1/2018	Projected 2018	Budget 2019	Balance 12/31/2019	Target Balance	Projection %
Watershed Reserve	\$2,318,482	(667,123)	-	\$1,651,359	\$3,722,639	6.7%
Land Cash Reserve	234,792	401,129	-	635,921		
	\$2,553,274	(\$265,994)	-	\$2,287,280	\$3,722,639	9.7%

Fee Schedule for Non-Water Tariff Services

Schedule of fees adopted by the Board of Trustees effective August 1, 2018.

	Description	Fee
A. Water		
1. Winter hydrant inspection	Inspection of private hydrants to verify the operability of hydrant during winter months	\$3 per month on monthly water bill. Cost covers the average cost to inspect hydrant
2. Damage Hydrants	Repair of hydrants damaged by customers	Costs to repair including labor, benefit overhead, stock items with normal markup (25%), third-party expenses and \$7 finance department administrative fee
B. Wastewater		
1. Industrial pretreatment permit	Initial and periodic review of the customer premises to assure compliance with IPT regulations	\$300 for initial and every 3-year renewal.
2. Septage and Holding Tank Waste	Qualifying haulers may deliver septage, holding tank and other waste to PWD treatment facilities (see policy 6.20-03)	Consistent with the 'Acceptance Fee Schedule' included in Policy 6.20-03.
3. Submeter Fee -Monthly	Covers the operating and capital cost of the submeter program	\$2 per month at the request of Cumberland, Gorham, South Portland and Westbrook
4. Submeter Fees -Other	The cost to investigate why a submeter cannot be read after the initial installation of meter/Encoder Receiver Transmitter (ERT).	Sub meter verification fee \$19
5. Submeter Fees – Portland Only	Costs or replacing submeters for Portland residents.	Submeter Replacement ERT & Meter \$150 Submeter ERT Only Upgrade fee \$105 Fees are per City's request.
C. General		
1. Purchases from Stock Room	Qualified third-parties and employees may purchase items from the stockroom – see policy 7.15-02.	Inventory value plus a 50% mark up (See Policy 7.15-02).
2. Freedom of Information Request	Members of the Public requesting access to public records (see policy 7.05-05).	\$1 for first page, \$0.50 for each additional page, optional \$15/hour to compile data. Payment in advance may be required. (See Policy 7.05-05)

Introduction

Operating Expenses are recorded to each department by expense category by fund and program. A summary of all expense categories is provided with an explanation of major assumptions and changes. Additionally, operating expenses for each department is provided. The District has five departments – Water Operations, Wastewater Operations, Environmental Services, Engineering Services and Administrative Services. For each department, the following information is provided:

- Description of Core Services
- Key Statistics
- Performance Benchmarks
- Past Accomplishments
- Current Year Projects and Initiatives
- Financial Summary in total and by sub-departments with a summary of each sub-department fund and program expenses
-

2019 Financial Summary by Category

	2018 Budget	2019 Budget	Diff \$	Diff %
Salaries & Wages	\$11,072,089	\$11,507,789	\$435,700	3.9%
Employee Benefits	5,602,176	5,520,409	-81,767	-1.5%
Biosolids Disposal	1,504,698	1,674,962	170,264	11.3%
Chemicals	976,654	1,137,386	160,732	16.5%
Contracted Services	4,265,913	4,484,961	219,048	5.1%
Deferred Cost W/O	14,400	10,100	-4,300	-29.9%
Heat/Fuel Oil	313,193	331,981	18,788	6.0%
Insurance	212,657	196,845	-15,812	-7.4%
Materials & Supplies	1,661,287	1,764,434	103,147	6.2%
Other Expense	727,158	782,000	54,842	7.5%
Purchased Power	1,935,093	1,751,432	-183,661	-9.5%
Regulatory/Taxes	216,465	213,965	-2,500	-1.2%
Tele/Other Utilities	377,004	356,021	-20,983	-5.6%
Transportation	<u>1,133,133</u>	<u>1,139,310</u>	<u>6,177</u>	<u>0.5%</u>
Dept Expense	30,011,920	30,871,595	859,675	2.9%
Trans Offset	<u>-793,454</u>	<u>-829,454</u>	<u>-36,000</u>	<u>4.5%</u>
Fund Expense	29,218,466	30,042,141	823,675	2.8%

2019 Financial Summary by Department

	Number of Employees	2018 Budget	Number of Employees	2019 Budget	Budget Diff \$	Budget Diff %
Water Services	54	\$8,464,029	54	\$8,795,473	\$331,444	3.9%
Wastewater Services	38	9,382,172	39	9,567,783	185,611	2.0%
Environmental Services	17	2,063,638	16	2,068,960	5,322	0.3%
Engineering Services	31	4,198,336	31	4,356,957	158,621	3.8%
Administration	42	5,637,880	42	5,821,457	183,577	3.3%
Non-Departmental	0	<u>265,865</u>	0	<u>260,965</u>	<u>(4,900)</u>	<u>-1.8%</u>
	182	30,011,920	182	30,871,595	859,675	2.9%

Departmental Expense by Category

Salaries/Wages:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
660111 - SALARIES/WAGES NON-UNION	3,903,814	2,056,827	4,317,232	4,552,112	234,880	5.4%
660112 - WAGES/OVERTIME NON-UNION	223	-	-	-	-	n/a
660121 - WAGES/REGULAR UNION	5,485,970	2,882,239	5,880,826	6,041,999	161,173	2.7%
660122 - WAGES/OVERTIME UNION	467,432	219,744	471,819	513,046	41,227	8.7%
660123 - WAGES/DOUBLETIME UNION	55,169	26,628	50,428	59,805	9,377	18.6%
660124 - WAGES/STANDBY TIME UNION	144,573	74,023	131,996	137,677	5,681	4.3%
660131 - WAGES - REGULAR - TEMPS	171,497	54,770	151,788	171,150	19,362	12.8%
660132 - WAGES - OVERTIME- TEMPS	376	32	-	-	-	n/a
660136 - CONTRACTED - TEMP	3,565	1,232	41,000	5,000	(36,000)	-87.8%
66014 - VACATION ACCRUAL	35,843	10,269	-	-	-	n/a
660141 - TRUSTEES COMPENSATION	19,625	10,675	27,000	27,000	-	0.0%
66015 - SICKTIME ACCRUAL	135,462	35,929	-	-	-	n/a
Grand Total	10,423,549	5,372,368	11,072,089	11,507,789	435,700	3.9%

Labor rates for all employees (union and non-union) were assumed to be 3.0% higher than the rates paid on July 1, 2018.

Combined, the two regular labor accounts (660111 & 660121) increased \$396,053 (3.9%). There was a slight increase in hours (0.1%) due to the new Industrial Pre-Treatment (IPT) position being budgeted for the full year. Last year it was budgeted for only nine months.

Budgeted hours for overtime/doubletime/standby rose 3.6% (695 hours) to reflect actual results while hours for temporary employees (included contracted) decreased 3.2% (417 hours).

The budgeted dollars for labor reflect work on operating (O&M) activities. Labor planned for capital projects is included as part of the Capital Improvement Plan (CIP) later in this document. Overall, the percentage of labor planned for CIP projects increased from 3.2% of total labor in 2018 to 3.3% in 2019 (an increase of \$23,611 or 6.4%).

District's overall number of regular (non-temporary) employees remained the same at 182.

Positions	2018 Budget	2019 Budget	Change
Full Time	180	180	0
Part Time	2	2	0
Total	182	182	0

The Human Resources section has additional details.

Departmental Expense by Category (continued)

Employee Benefits:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
660401 - FICA - EMPLOYERS' SHARE	783,369	412,964	843,877	879,970	36,093	4.3%
660405 - SAFETY/WHY PROGRAM ITEMS	33,951	12,462	37,470	39,090	1,620	4.3%
660411 - MEALS ALLOWANCE	9,196	4,440	8,640	8,690	50	0.6%
660413 - PWD TRAINING PROGRAM	1,455	45	-	-	-	n/a
6604151 - FIELD UNIFORMS	1,200	1,200	1,290	1,290	-	0.0%
660418 - STIPENDS	14,400	13,500	14,700	15,800	1,100	7.5%
660419 - EMPLOYEE BENEFITS-MISC OTH	54,598	19,499	30,580	34,936	4,356	14.2%
660491 - FRINGE BENEFITS-REG/SAL	4,458,706	2,253,697	4,665,619	4,540,633	(124,986)	-2.7%
Grand Total	5,356,875	2,717,807	5,602,176	5,520,409	(81,767)	-1.5%

The amount noted is the operating funds' portion of employee benefit cost. As with labor, a small portion of benefit expense is charged to capital projects.

The largest item (Fringe Benefits - 660491) covers the District's portion of employee benefits, most notably health insurance and pension. This charge is applied as a percentage of regular labor (excluding overtime, double time, etc.) charges. In the 2019 Budget, the percentage is 42.86% which is a decrease from 2018's percentage of 45.75% mostly due to lower pension costs.

The Human Resource section has additional details.

Biosolids Disposal:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
663571 - BIOSOLIDS DISPOSAL	1,862,526	956,013	1,504,698	1,674,962	170,264	11.3%
Grand Total	1,862,526	956,013	1,504,698	1,674,962	170,264	11.3%

The material remaining at the end of the wastewater treatment process is called biosolids. The cost of biosolids disposal is the volume disposed (wet tons) times the rate per ton:

Facility	2018	2019	Change	%	2018 % Solids	2019 % Solids
Portland (East End)	18,157	20,100	1,943	10.7%	21.0%	21.0%
Westbrook	3,916	4,086	170	4.3%	21.5%	21.0%
Cape Elizabeth	280	300	20	7.1%	21.0%	21.0%
Peaks Island	<u>45</u>	<u>70</u>	<u>25</u>	<u>55.6%</u>	21.0%	21.0%
Total	22,398	24,556	2,158	9.6%		

The agreement with the disposal vendor allows for an annual price increase of 80% of the Northeast Urban CPI or 3.5%, whichever is lower. The current rate is \$66.87; the 2019 Budget assumes a 2.5% CPI increase and an estimated 2019 rate of \$68.21. This rate is \$1.03/wet ton (1.5%) above the prior year's budget assumption of \$67.18.

Departmental Expense by Category (continued)

Chemicals:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
66181 - AMMONIA	25,003	10,556	24,168	23,752	(416)	-1.7%
661811 - SODIUM BICARBONATE	16,758	10,001	18,725	14,620	(4,105)	-21.9%
661812 - SODIUM BISULFITE	137,057	73,677	156,824	172,100	15,276	9.7%
66182 - CAUSTIC SODA	92,218	56,899	98,975	144,945	45,970	46.4%
66183 - FLUORIDE COMPOUND	41,849	16,776	38,557	40,340	1,783	4.6%
66184 - ZINC ORTHOPHOSPHATE	68,339	30,115	71,461	74,727	3,266	4.6%
66185 - SODIUM HYPOCHLORITE	322,290	180,971	320,396	402,830	82,434	25.7%
66189 - POLYMER	245,376	149,412	182,233	195,270	13,037	7.2%
661892 - LIQUID OXYGEN (LOX)	63,216	31,358	58,215	61,902	3,687	6.3%
661899 - OTHER CHEMICALS	3,920	2,518	7,100	6,900	(200)	-2.8%
Grand Total	1,016,026	562,283	976,654	1,137,386	160,732	16.5%

Chemicals are primarily used at the District's two water and four wastewater treatment facilities. The budget increase above was driven by both increases in usage and price (see chart below). Actual unit prices will be known in December. Volumes used were adjusted up or down depending upon historic usage or operational changes.

The biggest changes were the budget increase to Sodium Hypochlorite of \$82,434 (25.7%) and Caustic Soda of \$45,970 (46.4%). Both increases were mostly due to the increase in cost per unit.

When the Cape Elizabeth Treatment Plant installation of the new ultraviolet (UV) treatment process is completed, the plant will no longer use sodium bisulfite or hypochlorite. The budget assumes the UV treatment process is in place for all of 2019.

	2018 Assumption		2019 Assumption		% Change		Budget Dollars
	Units	Per Unit	Units	Per Unit	Units	Per Unit	
<u>Water Treatment (Ozone)</u>							
Ammonia	16,924	\$1.428	16,269	\$1.460	-3.9%	2.2%	-\$416
Caustic Soda	90,881	\$1.010	89,958	\$1.550	-1.0%	53.5%	\$47,645
Fluorine Compound	19,761	\$1.939	19,162	\$2.093	-3.0%	7.9%	\$1,778
Liquid Oxygen	118,806	\$0.490	121,377	\$0.510	2.2%	4.1%	\$3,687
Sodium Hypochlorite	151,332	\$0.720	146,112	\$0.850	-3.4%	18.1%	\$15,236
Zinc Orthophosphate	18,353	\$3.894	18,430	\$4.054	0.4%	4.1%	\$3,266
<u>East End WWTF</u>							
Polymer	169,000	\$0.850	174,870	\$0.930	3.5%	9.4%	\$18,979
Sodium Bisulfite	105,600	\$1.270	121,440	\$1.310	15.0%	3.1%	\$24,974
Sodium Hypochlorite	290,000	\$0.650	294,500	\$0.850	1.6%	30.8%	\$61,825
<u>Westbrook WWTF</u>							
Polymer	26,000	\$1.350	32,120	\$0.930	23.5%	-31.1%	-\$5,225
Sodium Bisulfite	7,900	\$2.720	5,500	\$2.330	-30.4%	-14.3%	-\$8,673
Sodium Hypochlorite	29,000	\$0.650	31,000	\$0.850	6.9%	30.8%	\$7,500

Departmental Expense by Category (continued)

Contracted Services:

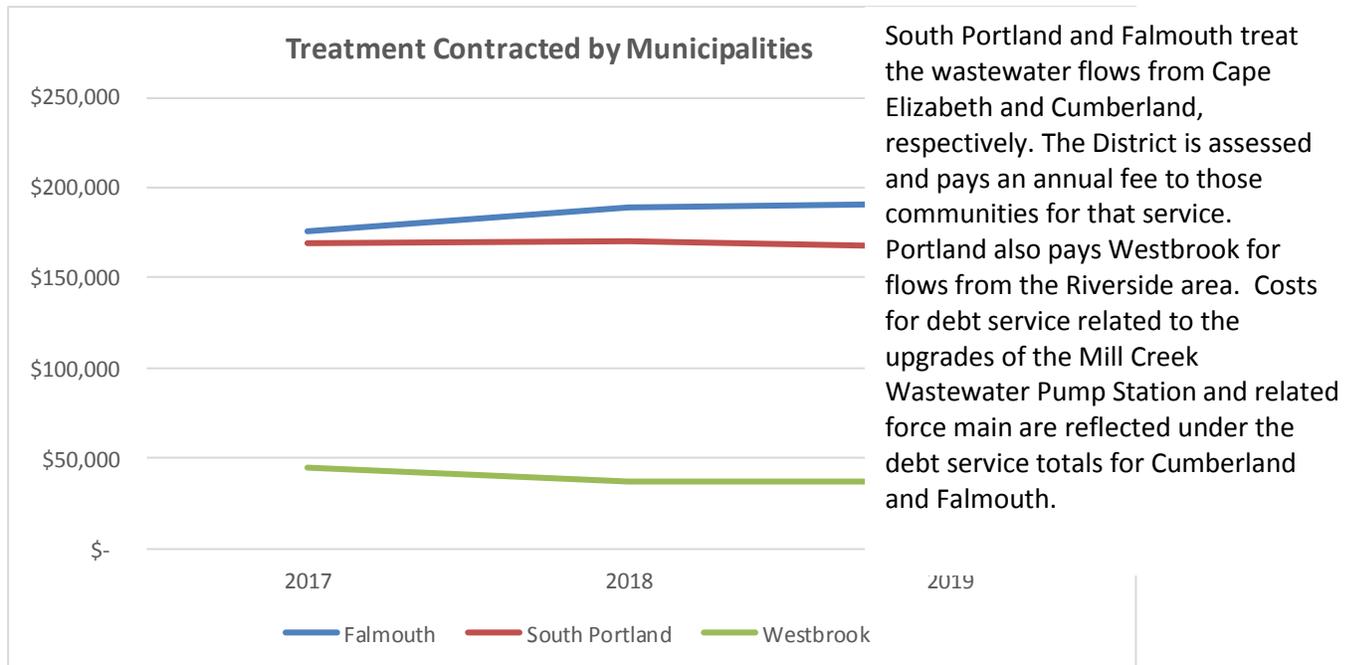
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
662063 - COPIER MAINTENANCE/TONER	12,361	6,951	13,500	13,000	(500)	-3.7%
6631 - ENGINEERING SERVICES	128,547	45,358	244,800	199,500	(45,300)	-18.5%
6632 - ACCOUNTING SERVICES	35,875	35,000	35,000	35,500	500	1.4%
66331 - LEGAL - LABOR RELATIONS	56,333	42,186	100,000	85,000	(15,000)	-15.0%
66333 - BOND COUNSEL	7,890	-	7,500	7,500	-	0.0%
66339 - LEGAL - OTHER	46,322	8,427	34,500	34,500	-	0.0%
66352 - CONSTRUCTION SERVICES	386	2,975	4,500	5,500	1,000	22.2%
663521 - TRAFFIC CONTROL	52,235	31,290	60,050	60,050	-	0.0%
6635221 - PAVING - MINOR REPAIR	556,589	184,944	426,000	526,000	100,000	23.5%
663523 - SIDEWALK	13,680	6,782	18,500	18,500	-	0.0%
663524 - STREET OPENING	55,888	24,638	60,680	61,100	420	0.7%
663525 - CONTRACTOR CONSTRUCTION	626,295	242,979	583,500	613,500	30,000	5.1%
663527 - EMERGENCY RESPONSE- FEMA	33,391	425	360	425	65	18.1%
66353 - REPAIR SERVICES	34,768	17,799	62,500	57,500	(5,000)	-8.0%
66354 - MAINTENANCE SERVICES	658,994	397,647	684,105	710,715	26,610	3.9%
663542 - LARGE METER TESTING	1,387	1,553	12,500	6,500	(6,000)	-48.0%
663543 - CSO FLOW MONITORING	96,985	37,833	191,395	156,375	(35,020)	-18.3%
663544 - MAINT SERVICES - CCTV	29,250	15,563	81,250	65,350	(15,900)	-19.6%
663545 - RADIO SERVICING AND EQUIP	5,344	3,427	3,000	3,500	500	16.7%
663546 - MAINTENANCE - SNOW REMOVL	128,350	73,339	116,614	112,119	(4,495)	-3.9%
663547 - WASTE SLUDGE TRANSPORT	33,220	14,097	31,560	32,000	440	1.4%
663551 - LAB ANALYSIS	37,944	13,270	44,202	45,060	858	1.9%
663553 - PHOTOGRAPHY SERVICES	600	275	600	850	250	41.7%
663561 - COMPUTER LICENSES	80,500	64,941	85,190	87,190	2,000	2.3%
663562 - COMPUTER MAINTAINENCE	212,197	143,233	223,425	402,350	178,925	80.1%
663563 - COMPUTER CONSULTING/OTHER	26,477	7,304	21,200	20,600	(600)	-2.8%
663572 - GRIT & SCREENS DISPOSAL	49,793	20,875	74,450	74,450	-	0.0%
663573 - GREASE DISPOSAL	25,479	12,994	34,200	30,200	(4,000)	-11.7%
663574 - DISPOSAL SERVICES	33,927	9,964	38,960	37,960	(1,000)	-2.6%
6635801 - EMPLOYEE HEALTH SERVICES	11,447	4,934	10,000	10,000	-	0.0%
663581 - UTILITY BILLING PRINTING	90,172	36,013	79,504	81,094	1,590	2.0%
663582 - PAYMENT PROCESSING	144,513	75,139	142,000	150,215	8,215	5.8%
663583 - RECEIVABLE COLLECTIONS	7,481	6,171	9,000	10,000	1,000	11.1%
663584 - BANK SERVICE CHARGES	22,285	11,000	21,600	22,800	1,200	5.6%
663585 - TREATMENT CONTRACT SERVIC	390,127	318,210	396,860	395,483	(1,377)	-0.3%
6635851 - WW DEWATERING SERVICES	8,116	2,537	5,438	5,100	(338)	-6.2%
6635852 - WW DEWATERING SRVS CREDIT	(8,116)	(2,537)	(3,400)	(5,500)	(2,100)	61.8%
663587 - COURIER SERVICES	21,815	10,980	22,000	23,300	1,300	5.9%
663588 - EQUIPMENT MAINTENANCE	11,484	3,011	19,120	17,470	(1,650)	-8.6%
663589 - SECURITY SERVICES	82,981	45,644	84,000	84,000	-	0.0%
663592 - RECRUITING SERVICES	3,002	2,219	7,250	7,000	(250)	-3.4%
663594 - DIGSAFE	64,573	31,338	71,000	71,000	-	0.0%
663598 - HR CONSULTANT SERVICES	6,435	-	2,000	8,000	6,000	300.0%
6635985 - VEHICLE FLEET GPS SERVICE	9,163	10,780	30,000	25,000	(5,000)	-16.7%
663599 - MISC OTHER SERVICES	43,432	18,094	56,100	52,405	(3,695)	-6.6%
6636 - TECHNICAL SERVICES	12,172	1,158	19,400	24,800	5,400	27.8%
Grand Total	4,002,089	2,040,760	4,265,913	4,484,961	219,048	5.1%

Departmental Expense by Category (continued)

Contracted Services covers a large variety of services provided by outside vendors, budget changes of note include:

- Computer Maintenance – These are the costs associated with maintenance agreements with vendors on the District’s computer systems. The costs increased by \$178,925 and are mostly related to software as part of the ABC project.
- Paving – Minor Repair – This account increased \$100,000 (23.5%). The increase was in the Water fund and was done to bring the budget more in line with prior year activity.

Treatment Contracted Services (663585) is a significant cost item, totaling \$395,483 in 2019:



Deferred Cost Write-Off:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
66754 - DEFERRED COSTS WRITE OFF	97,845	7,200	14,400	10,100	(4,300)	-29.9%
Grand Total	97,845	7,200	14,400	10,100	(4,300)	-29.9%

The Deferred Cost Write-Off contains the annual amortization of studies or other items that have multi-year impacts. The only project currently being written down is the Combined Sewer Overflow (CSO) study in Westbrook.

Departmental Expense by Category (continued)

Heat/Fuel Oil:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
66161 - HEATING OIL	\$167,970	\$76,348	\$88,401	\$95,939	\$7,538	8.5%
661621 - PIPELINE DELIVERED PROPAN	79,091	89,610	140,747	155,196	14,449	10.3%
661622 - CONTAINER DELIVERED	57,664	39,091	60,145	56,796	(3,349)	-5.6%
66166 - UNLEADED GAS	18,704	9,013	23,900	24,050	150	0.6%
Grand Total	323,429	214,062	313,193	331,981	18,788	6.0%

The first three accounts in this category (66161 to 661622) involve fuel used for facilities' heat or backup generators. A major shift between 2017 Actual and 2018 & 2019 Budgets was the changeover from heating oil to pipeline delivered natural gas to the District's Douglass Street facility. Unleaded Gas (66166) is for District vehicles that fuel up at remote locations and for the boat used in the District's Sebago Lake monitoring efforts.

	2018 Assumption		2019 Assumption		% Change	
	Units	Per Unit	Units	Per Unit	Units	Per Unit
Heating Oil:						
Water Treatment/Ozone Plant	34,332	\$1.85	35,484	\$1.85	3.4%	0.0%
Westbrook WWTF	6,700	\$1.85	6,000	\$2.45	-10.4%	32.4%
Cape Elizabeth WWTF	2,928	\$1.85	2,393	\$2.44	-18.3%	31.9%
Peaks Island WWTF	1,400	\$2.35	2,129	\$3.45	52.1%	46.8%
Dana Court WWPS (Westbrook)	1,008	\$1.85	n/a	n/a	n/a	n/a
Water - Throttling Valve Building	1,038	\$1.85	964	\$2.50	-7.1%	35.1%
	47,406	\$1.86	46,970	\$2.04	-0.9%	9.8%
Natural Gas:						
Portland (East End) WWTF	80,968	\$1.11	87,836	\$1.15	8.5%	3.6%
Dana Court WWPS (Westbrook)	n/a	n/a	2,609	\$1.15	n/a	n/a
Douglass Street	50,205	\$0.98	42,609	\$1.15	0.0%	0.0%
	131,173	\$1.06	130,445	\$1.15	-0.6%	8.5%

Insurance:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
6656 - VEHICAL INSURANCE	30,254	12,658	31,306	32,233	927	3.0%
6657 - GEN LIABILITY INSURANCE	50,264	25,507	49,419	55,966	6,547	13.2%
66592 - DAMAGES & CLAIMS-GOODWILL	3,762	1,880	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	8,810	4,446	8,784	9,606	822	9.4%
66594 - PROFESSION/CRIME BONDING	30,946	12,738	32,769	26,027	(6,742)	-20.6%
66599 - PROPERTY & BOILER INSUR	78,315	36,398	86,379	69,013	(17,366)	-20.1%
Grand Total	202,351	93,627	212,657	196,845	(15,812)	-7.4%

Insurance costs include premiums paid on coverage for District property as well as small claims paid directly to outside parties. The drop in the budget occurred due to assumed increases in the prior year budget related to large capital projects, such as the aeration upgrade at the East End Wastewater Treatment Facility, not being as much as expected.

Departmental Expense by Category (continued)

Materials & Supplies:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
6619 - ASSET PURCHASES	128,588	60,879	202,340	219,475	17,135	8.5%
662012 - CRUSHED GRAVEL	504	768	550	550	-	0.0%
662016 - SAND	-	-	3,820	3,820	-	0.0%
662017 - SAND AND SALT	1,020	672	3,452	3,452	-	0.0%
66202 - TOOLS	63,129	19,308	40,195	45,500	5,305	13.2%
66203 - VENDOR PURCHASED SUPPLIES	554,033	246,267	531,918	559,008	27,090	5.1%
662041 - MATERIALS INVENTORY	201,815	94,865	208,368	203,965	(4,403)	-2.1%
662042 - SUPPLIES INVENTORY	103,999	58,956	73,745	89,775	16,030	21.7%
662042 - TOOL INVENTORY	1,155	12	1,000	1,000	-	0.0%
66204201 - INVENTORY - QPR	635	204	2,500	2,500	-	0.0%
66204202 - INVENTORY - BNKRUN GRAVEL	13,815	5,201	8,750	14,000	5,250	60.0%
66204203 - INVENTORY - CRUSHD GRAVEL	38,909	12,721	17,000	18,750	1,750	10.3%
66204204 - INVENTORY - CRUSHED STONE	2,163	527	700	1,700	1,000	142.9%
66204205 - INVENTORY - LOAM	(4)	377	2,250	2,250	-	0.0%
662043 - TOOL INVENTORY	107,074	65,823	82,700	91,025	8,325	10.1%
66204301 - INVENTORY - TONER	4,783	440	3,000	1,000	(2,000)	-66.7%
66204302 - INVENTORY - PAPER	3,055	1,515	4,800	2,300	(2,500)	-52.1%
66204303 - INVENTORY-COMPUTER EQUIP	10,678	7,304	24,951	19,891	(5,060)	-20.3%
662044 - METER INVENTORY	(30,566)	(20,947)	17,350	17,850	500	2.9%
662046 - HYDRANT INVENTORY	44,622	37,072	67,150	69,400	2,250	3.4%
662047 - GARAGE INVENTORY	19,153	10,379	15,550	16,450	900	5.8%
66204701 - INVENTORY - UNLEADED GAS	121,446	51,162	103,125	121,550	18,425	17.9%
66204702 - INVENTORY - DIESEL	46,080	21,011	45,738	57,057	11,319	24.7%
66204703 - INVENTORY - TIRES	12,348	2,349	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	84,955	38,982	96,693	95,550	(1,143)	-1.2%
66206 - COMPUTER RELATED EQUIP	83,138	41,835	88,642	91,616	2,974	3.4%
Grand Total	1,616,527	757,682	1,661,287	1,764,434	103,147	6.2%

This group is a wide array of items including vehicle fuel and parts, bulk materials such as gravel, water infrastructure items (mains, meters, hydrants, and fittings) and office supplies. These items are consumed during normal operations and are used for the repair and maintenance of District assets. The 2019 Budget is up 6.2% overall due to higher fuel costs (see below) and other costs being brought in line with actual spending.

The assumptions for vehicle fuel were:

Fuel Type	2018 Assumption		2019 Assumption		% Change	
	Units	Per Unit	Units	Per Unit	Units	Per Unit
Diesel	23,100	\$1.98	23,100	\$2.47	0.0%	24.7%
Unleaded Gas	<u>55,000</u>	\$1.88	<u>55,000</u>	\$2.21	<u>0.0%</u>	17.9%
	78,100		78,100		0.0%	

Departmental Expense by Category (continued)**Other Expense:**

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
6641 - BUILDING/REAL PROP RENT	12,320	-	5,600	6,600	1,000	17.9%
66411 - INTERNAL RENTAL CHARGES	48,600	24,300	48,600	51,030	2,430	5.0%
6642 - EQUIPMENT RENT	8,424	14,635	19,200	19,700	500	2.6%
66601 - PUBLIC RELATIONS	5,922	2,007	9,400	15,300	5,900	62.8%
66609 - OTHER ADVERTISING	21,868	12,391	13,275	9,350	(3,925)	-29.6%
6670 - BAD DEBT EXPENSE	17,263	16,200	32,400	30,000	(2,400)	-7.4%
6675111 - INSTATE TRAINING/CONF	80,240	38,671	94,310	95,295	985	1.0%
6675112 - OUT OF STATE TRAINING/CON	40,018	12,955	48,000	48,150	150	0.3%
6675122 - OUT-OF-STATE CONFERENCES	2,962	-	3,500	7,000	3,500	100.0%
667513 - DUES	64,175	41,399	90,277	93,757	3,480	3.9%
667514 - PROFESSIONAL LICENSES	8,274	3,951	16,475	13,205	(3,270)	-19.8%
667515 - PERIODICAL SUBSCRIPTIONS	6,452	3,493	7,120	8,595	1,475	20.7%
667516 - PERMITS	27,992	6,538	29,356	29,281	(75)	-0.3%
667518 - REGULATORY REQUIRED FEES	11,314	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	191,451	118,114	217,849	228,780	10,931	5.0%
667522 - POSTAGE - INTERNAL	13,199	7,066	16,775	16,766	(9)	-0.1%
667523 - POSTAGE - EXPRESS DELIVER	2,275	1,688	2,600	2,800	200	7.7%
667531 - PRINTING COSTS	50,658	24,631	63,526	69,276	5,750	9.1%
667533 - FORMS STOCK	730	-	1,300	1,325	25	1.9%
667552 - SAFETY TRAINING	495	2,654	5,000	5,250	250	5.0%
667553 - DOT SUBSTANCE ABUSE	1,205	820	2,000	2,000	-	0.0%
667554 - EPA / OSHA COMPLIANCE	872	-	4,000	2,000	(2,000)	-50.0%
667555 - SAFETY EXPENSES	11,226	6,277	32,645	35,645	3,000	9.2%
667556 - FREIGHT CHARGES (STOCK)	(551)	38	8,000	8,000	-	0.0%
667561 - WATERSHED GRANTS/SUPPORT	82,450	9,435	44,050	54,100	10,050	22.8%
6675611 - GRANTS - PASS-THROUGH	22,812	-	-	-	-	n/a
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667591 - UNIFORMS	1,549	983	2,000	2,150	150	7.5%
667592 - FOOD SUPPLIES	9,758	2,782	8,335	8,910	575	6.9%
667598 - GEN MANAGER CONTINGENCY	18,634	-	45,000	61,500	16,500	36.7%
6675981 - GEN MNG - TRUSTEES	16,238	6,039	10,950	11,550	600	5.5%
6675982 - GEN MNG - COMMUNITY	(2,660)	14,920	25,115	27,215	2,100	8.4%
667599 - OTHER MISCELLANEOUS	19,852	7,122	2,100	2,100	-	0.0%
6676 - EXPENSE OFFSET	(213,652)	(110,819)	(215,100)	(218,130)	(3,030)	1.4%
6706 - AMORT OF U P ACQ ADJUSTS	17,000	8,500	17,000	17,000	-	0.0%
Grand Total	601,865	279,290	727,158	782,000	54,842	7.5%

Other expenses include postage (\$248,346), training and conferences (\$150,445) and dues (\$93,757). The Expense Offset (6676) contains expenses transferred to other departments or capital projects.

Departmental Expense by Category (continued)

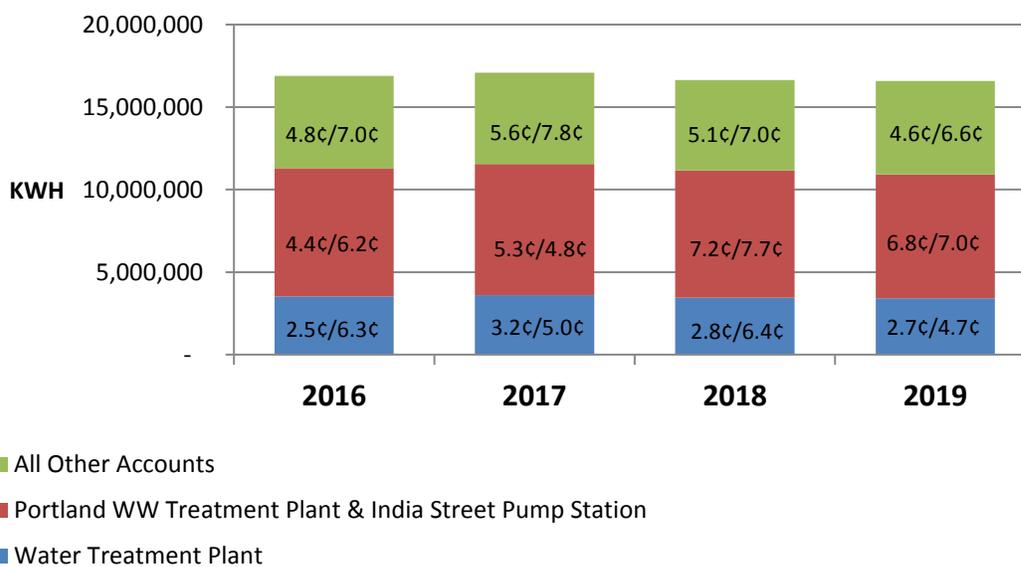
Purchased Power:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
66151 - POWER - LARGE ENERGY	602,579	331,529	601,772	469,301	(132,471)	-22.0%
66152 - POWER - LARGE T&D	434,253	253,844	466,339	438,628	(27,711)	-5.9%
66153 - POWER - MEDIUM ENERGY	320,501	217,974	326,105	322,410	(3,695)	-1.1%
66154 - POWER - MEDIUM T&D	268,895	113,071	221,297	197,030	(24,267)	-11.0%
66155 - POWER - SMALL ENERGY	52,190	39,080	54,538	52,375	(2,163)	-4.0%
66156 - POWER - SMALL T&D	75,218	40,182	64,001	64,715	714	1.1%
66157 - POWER - OTHER CHARGES	93,669	63,395	118,176	105,995	(12,181)	-10.3%
66158 - LOAD RESPONSE	(10,771)	(7,308)	(39,335)	(20,800)	18,535	-47.1%
66159 - POWER - CAPACITY	-	50,099	122,200	121,778	(422)	-0.3%
Grand Total	1,836,534	1,101,866	1,935,093	1,751,432	(183,661)	-9.5%

Electricity is delivered through the Central Maine Power transmission & distribution (T&D) system. The average 2019 rate per kwh ranges from \$0.040 to \$0.082.

The District purchases its electricity from Constellation Energy through an energy aggregation group - Maine Power Option. Energy contracts for small and medium accounts have been signed through December 2021. The contract for the Water Treatment Plant has been signed through November 2020 and the contracts for Wastewater Treatment Plant and India Street Pump Station are in effect through October 2020. The contracts for these three facilities have different prices for on and off peak usage, and fixed rates are lower in March – November than they are in the winter months. The chart below shows the rates for these accounts as well as the average rates for the remaining 107 small and medium sized accounts.

Electricity Usage by Contract and Average T&D/Energy Rate



Departmental Expense by Category (continued)

Regulatory/Taxes:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
670821 - STANDISH REAL ESTATE TAX	42,655	25,424	46,350	47,800	1,450	3.1%
670822 - OTHER R/E TAX(NON-STANDI)	7,627	5,000	7,750	8,000	250	3.2%
670823 - PUC ASSESSMENT	77,297	85,583	78,700	79,500	800	1.0%
670824 - ME DRINKING WTR PROGRAM	75,569	82,438	68,665	68,665	-	0.0%
670825 - PUC PUBLIC ADVOCATE	2,737	-	15,000	10,000	(5,000)	-33.3%
Grand Total	205,885	198,445	216,465	213,965	(2,500)	-1.2%

The District pays real estate taxes to the Town of Standish (670821) and Towns of Windham and Gorham (670822). Annual assessments are also paid by the District to the Maine Public Utility Commission (PUC) and the Maine Drinking Water Program. The PUC fee is based on each utility's revenues and time spent on matters related to each industry sector.

Telephone/Other Utilities:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
66101 - WATER/WASTEWATER	100,129	50,980	142,081	91,567	(50,514)	-35.6%
66102 - WASTEWATER HOLDING TANK	53,198	32,387	24,588	57,202	32,614	132.6%
66103 - STORMWATER CHARGES	30,168	17,004	30,801	32,083	1,282	4.2%
66111 - TELEPHONE LINES	27,752	14,831	29,185	26,722	(2,463)	-8.4%
66112 - DATA LINES	100,514	54,020	104,003	103,650	(353)	-0.3%
66113 - CELLULAR PHONES	37,315	18,050	45,763	43,904	(1,859)	-4.1%
66114 - PAGERS	1,246	-	583	893	310	53.2%
Grand Total	350,322	187,272	377,004	356,021	(20,983)	-5.6%

The budget changes in the communications related line items (Telephone, Data and Cellular) were adjusted due to reclassification of costs across accounts, changes in operational needs, and actual costs incurred. Stormwater Charges (66103) are a relatively new fee that the City of Portland charges property owners based on the amount of their impermeable surfaces such as roofs and paved surfaces.

Transportation:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
66501 - TRANSPORTATION - INTERNAL	595,678	300,513	629,703	647,851	18,148	2.9%
665019 - TRANS INTERNAL INACTIVE	483,884	231,512	406,672	403,575	(3,097)	-0.8%
66502 - TRANSPORTATION - EXTERNAL	42,038	15,762	75,800	66,750	(9,050)	-11.9%
66503 - MILEAGE REIMBURSEMENT	18,406	9,640	20,958	21,134	176	0.8%
Grand Total	1,140,006	557,427	1,133,133	1,139,310	6,177	0.5%

A standard 40-hour week is charged for most vehicles, when the vehicle is in use it is charged to Transportation Internal (66501) and the balance to the Inactive (665019) account. Transportation External (66502) involves ferry related fees to go the islands served and vehicles rented from outside vendors. Mileage Reimbursement (66503) is paid to employees who use their own vehicles when conducting District business.

Water Services

Hydrant Flushing



In an effort to improve the water quality in the distribution system, the District performs multi-directional flushing to remove any sediment that deposits on the bottom of these mains. This sediment can cause a reduction in the area’s chlorine residual and increase customer’s water quality inquiries.

During the past four years, staff began to de-chlorinate water discharges, especially in areas of impaired streams and areas with Municipal Separate Stormwater Sewer Systems (MS4).

	2017 Actual	2018 Projected	2019 Goal
% of System Flushed	32%	32%	33%

PWD Flushing Program Overview

- Corporate Goal to Flush 1/3 of the system each year
- Mains Less than 16” In Diameter
- Roughly 850 Miles of Main < 16” – Approximately 283 Miles Per Year
- Usually start in late March if weather permits. Then two crews work four 10-hour days, from 8 PM to 6 AM, Monday through Thursday, from May to October.
- Successfully moved a majority of flushing to daytime during 2017, to reduce the number of days that employees work night shifts. Some areas do require nighttime flushing due to traffic and customer impact

Water Services – Purpose Statement

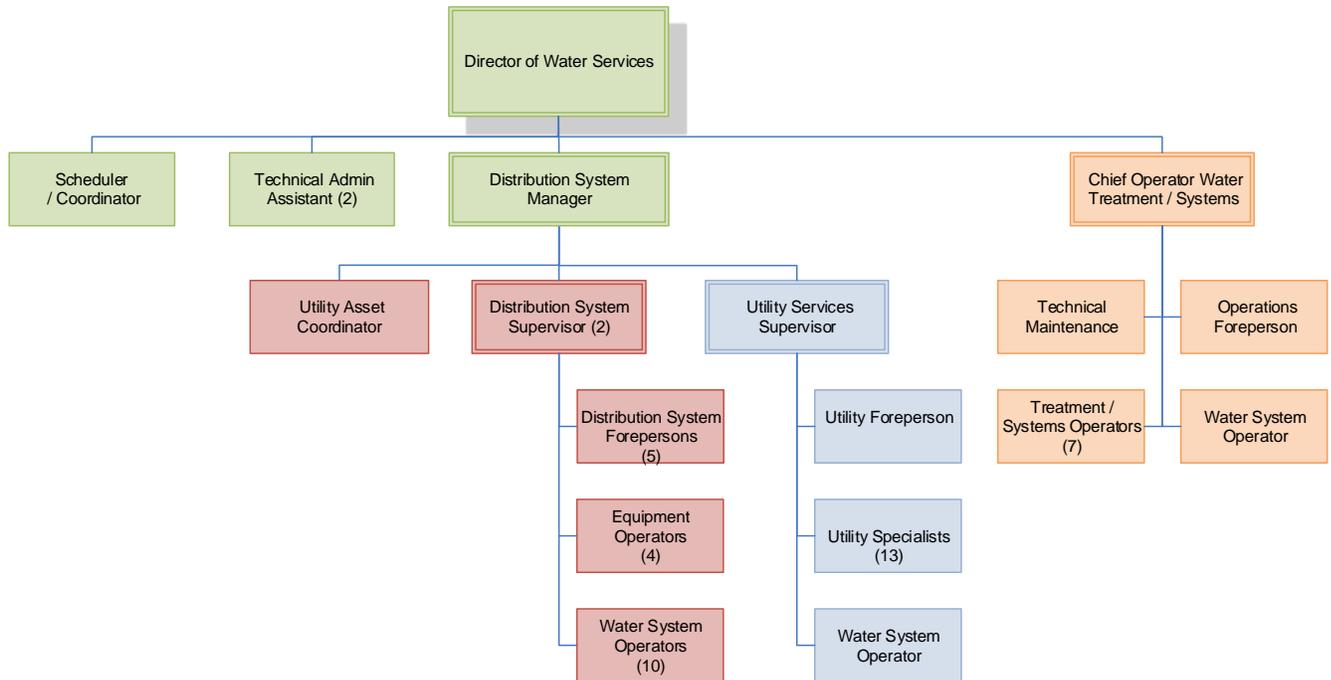
To operate and maintain water system infrastructure including the treatment, water storage and distribution systems.

Core Services

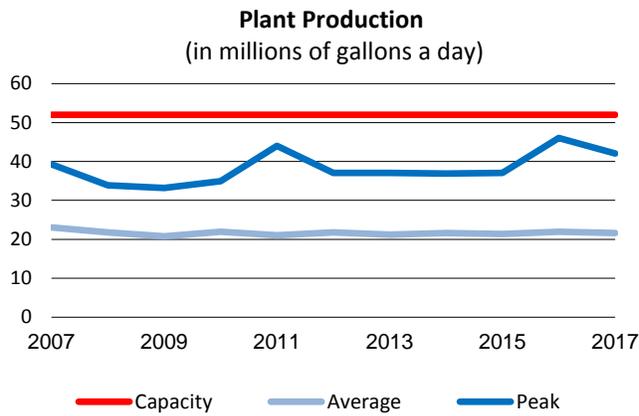
Water Operations is responsible for operating and maintaining the Sebago Lake and Steep Falls Well treatment and water distribution systems by providing the following services:

- Operation and maintenance of distribution system including emergency response, contractor inspection (Transmission/Distribution Group – A2; **red** in the organization chart).
- Operation and maintenance of the pumping, treatment, storage and chemical addition facilities (Treatment Group - A3; **orange** in organization chart).
- Field support services including customer meter and water quality inquiries, back-flow inspection, system flushing, hydrant inspection and contractor inspection (Utility Services Group – A6; **blue** in the organization chart).

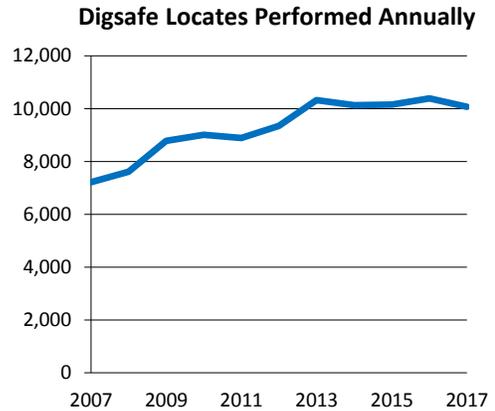
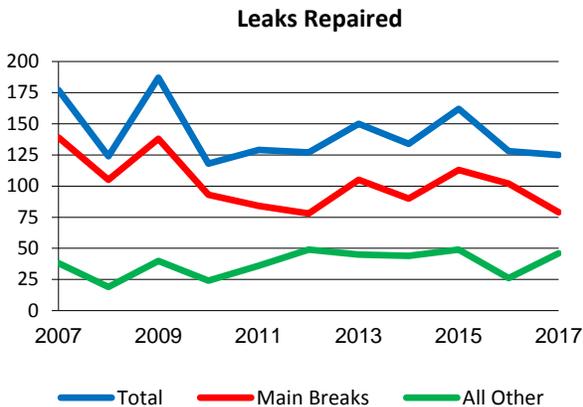
Water Operations has a five-person group (Administration Group- A1; **green** in organization chart) that directs, oversees and provides administrative support.



Key Statistics



Water Supply	Surface – 99%
	Groundwater -1%
Water Treatment	Ozone, Ultraviolet, Chloramination, Corrosion Control, Fluoridation
Water Mains	1000 miles
Valves	11,448
Hydrants	5,085
Service Lines	54,912
Water Storage	10 (+2 non-active)
Booster Stations	6
Backflow Devices	4,300

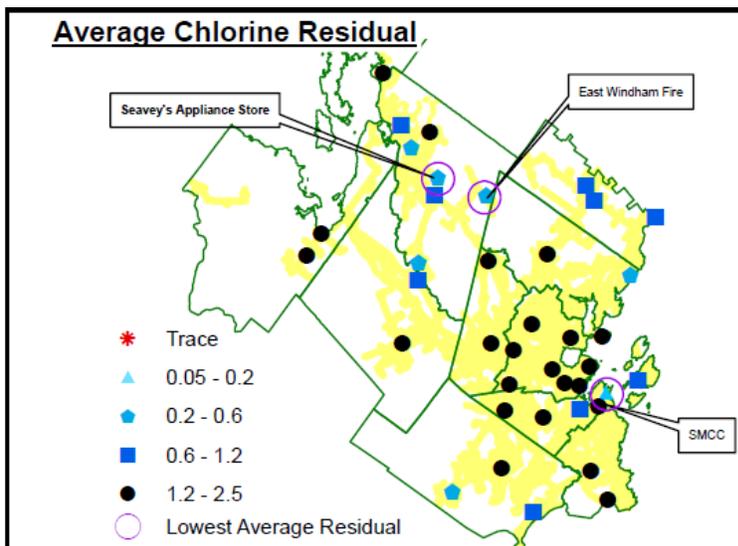


- Leaks repaired each year vary by number/severity of leaks and is a significant budgetary variable.
- Digsafe locates include marking of water and wastewater infrastructure for others who are working near our assets.

Performance Benchmarks

	2017 Actual	2018 Projected	2019 Goal
Corporate Goal – Public Health			
Compliance of Water Regulations	100%	100%	100%
95% of Distribution System Chlorine Residuals	0.4 mg/l	0.5 mg/l	> 0.5 mg/l
Corporate Goal – Public Safety			
Meeting with Municipal Fire Chiefs	2	2	2
Fire Service Outage Index	5.3	4.5	3
Corporate Goal – Reliability			
Water Outage Index	10.5	< 20	< 20
Leaks per 100 mile of main	8.0	< 10	< 10
Transmission valves exercised	329	417	416
Distribution valves exercised	34	45	100
Customer Appointments On-time	99.9%	99.9%	100%
Corporate Goal – Affordability			
Water Facility Maintenance Ratio	74% / 26%	75% / 25%	75% / 25%
Department Cost / million gal	1,045	1,058	1,109
Treatment Cost / million gal	300	303	309
Unaccounted for Water %	15%	15%	14.5%
Corporate Goal – Employees and Work Environment			
Employee Training Hours	106	80	80

Distribution System Chlorine Residuals



Past Accomplishments

Water Field

- There were a number of employee suggestions that were acted upon during 2018
 - Purchased an additional portable data logger to monitor water pressure at hydrants
 - Added an additional Utility Specialist position
 - Scheduled on-call person to attend the weekly construction inspector's meeting
 - Inspected confined space entry tripods and completed minor repairs
 - Purchased headlamps for night work
 - Purchased a small vacuum/crane truck
 - Outfitted Utility Specialist's vans with fold-up ladders
- Rightsizing of A2 fleet:
 - Purchased a Volvo ECR88 rubber track excavator with trailer which greatly improved our ability to handle the current work load more efficiently. It minimizes the amount of outside contractor support that was provided in the past, replaced 2 backhoes, and greatly enhanced our capabilities and safety when working on tight streets.



Past Accomplishments (continued)

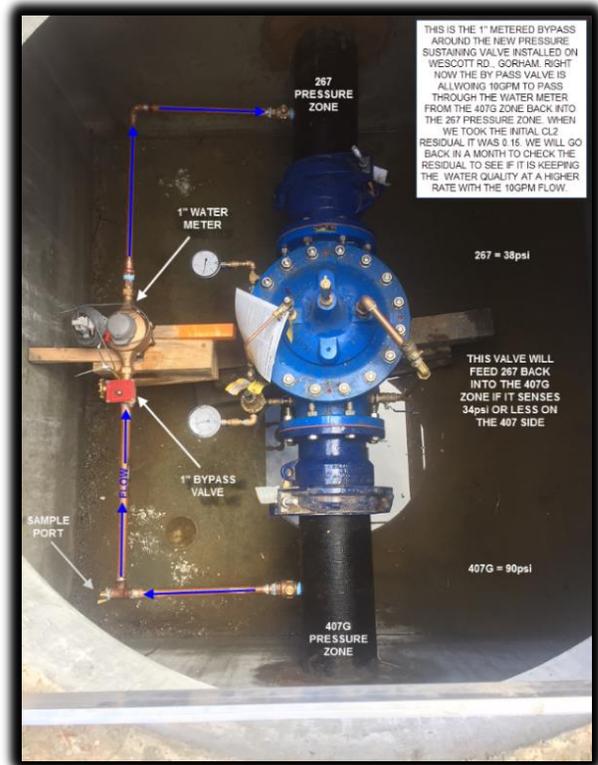
- Rightsizing of A2 fleet: (continued)
 - Per an employee suggestion the department continues to explore vacuum excavation techniques and technology. A crew was sent to Kennebec Water District to learn how they use a larger vacator unit as primary means to excavate and perform maintenance operations. When applied correctly it can save time and money.
 - Purchased a large wheeler dump truck and traded 2 small 7 yard dump trucks. The small dumps were underutilized and a large wheeler was needed to haul the one ton excavator truck with dump body. This vehicle was added to the fleet for small jobs and box work. It usually goes with the vacator crew where traditionally a large dump was used. It provides greater efficiency and flexibility for the smaller jobs. It's also the only 1 ton dump in the District fleet so it's used by other departments. This was another employee suggestion.
- Operations had to relocate our materials from the compost facility to the back yard of Douglass St. Bins were set up to store only enough materials for use during night work when the contractor pits are closed. The goal is to retain as little as possible at Douglass Street and to continue to use locally operated contractor pits.



- Completed our 11th year of the Water System Operator apprentice program to expose new employees to all water departments. In the past year, one of the program's participants was promoted to Utility Asset Coordinator and several others accepted positions as Utility Specialists. The program has seen a number of highly skilled and qualified employees come through in the past year.

Past Accomplishments (continued)

- Wescott Rd., Gorham – Pressure sustaining valve installation.
 - Designed to feed the 267 pressure zone into the 407 zone if the pressure drops below 34 psi.
 - This will help maintain adequate pressure during a leak on the 407 zone and reduce boil water order incidences.
 - Planning similar installations at other locations.
 - 1" metered bypass is also installed to allow a constant flow between the zones to help with water quality.



- Purchased an Omni V2 Portable Water Test Meter to test large meters >2" in size. The large meter test program will consist of onsite testing, chamber changes and calibration, and bench testing at Douglass Street depending on the current configurations. Initially the program will focus on high revenue customers where testing is feasible and the customer impact can be minimized.

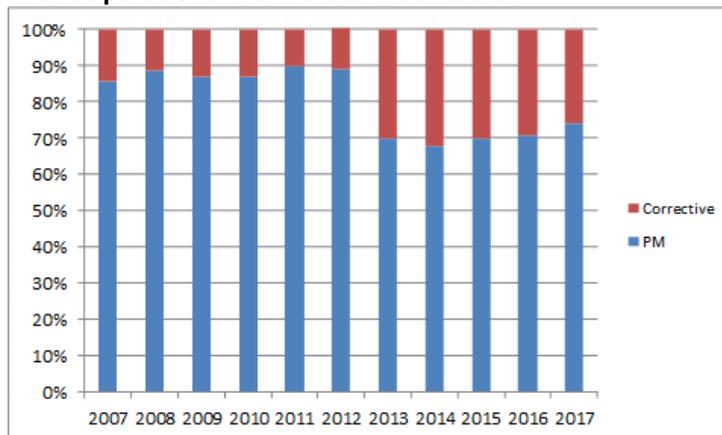


Past Accomplishments (continued)

Water Plant

- Zero reportable accidents or lost time injuries.
- Met all Primary and Secondary Regulations associated with the Surface Water Treatment Rules, including 100% compliance with ozone treatment regulations. SLWTF also achieved >99.99% compliance with UV treatment regulation associated to Long Term 2 Enhanced Surface Water Treatment Regulations, easily surpassing EPA's 95% compliance requirement.
- A review of Water Treatment's 2017 completed work order distribution indicated 74% of the work orders completed were "planned preventative maintenance work", while only 24 % of the work order completed in 2017 were "corrective". This measurement puts A3 in line with Industry standards for operational goals, which is set at 75% PM work, versus 25% corrective work.

2017 Water Treatment Operations Work Order Distribution



- Replaced the last of the original (1993 installation) Raw Water Pump Variable Frequency Drives (VFD). The VFDs provide critical pump speed control and help to limit electric power surges and water hammer by controlling the ramp up and down speed of the motor.



Past Accomplishments (continued)

Water Plant (continued)

- Successfully limited SLWTF electrical power demand to a minimum (<10kW) during ISO-NE's peak annual demand hour (August 29th, 2018, @ 25,765 megawatts), which sets Forward Capacity charges beginning June 2019.
- Construction was completed on the long anticipated Wards Hill Pump Station, which will initially replace Gorham Pump Station by supplying water to meet the increasing demand of the 407 South Pressure Zone. Eventually, the pump station will supply water into the Windham Center 407 North Pressure Zone. Wards Hill Pump Station was put into service to begin the 31-day Site Acceptance Demonstration on August 27, 2018, and, as of mid-September; the pump station has operated exactly as designed.



- Scheduled to replace the Prides Corner #1 Pump and motor by the end of November 2018. This will ensure reliable operation of the pump station until such time in the future (5 years) that the Wards Hill; Pump Station Feed is connected in the Windham Center 407 North pressure zone.
- Installed an emergency GOX connection, which provides an alternative GOX feed into the ozone production system in the event of a catastrophic failure of the liquid oxygen to gaseous oxygen system from the LOX yard underground into the Sebago Lake Treatment Facility.
- Lead & Copper samples collected from the Steep Falls system in 2018 easily passed the LCR Action Levels. The Steep Falls lead 90th percentile came in at <2 PPB, with the EPA lead Action Level set at 15 PPB. Steep Falls is currently under "Reduced Monitoring" regulations, which is every three years.

2019 Projects and Initiatives

Corporate Goal – Public Health

- Corporate Initiative
 - Continuously improve the water quality in the Distribution System, using guidelines and action plans developed through the AWWA Partnership for Safe Water for Distribution Systems.
 - Effectively manage implementation of the revisions to the Cross Connection Control program.
- Departmental Initiatives
 - Continue to meet 100% of all Primary and Secondary Surface Water Treatment Rule.
 - Program SCADA control strategy for the use of hypochlorite for emergency 4-log virus disinfection in the event of an ozone system failure. This was a 2018 initiative that we will continue to work towards completing in 2019.

Corporate Goal – Public Safety

- Departmental Initiative
 - Regular replacement of magnetic locators for accurate locating of underground assets, to keep current with changes in technology (employee suggestion).
 - Continue to provide flow testing as requested by municipal fire departments to verify available flow in targeted areas within their communities.

Corporate Goal – Reliability

- Corporate Initiative
 - Setup locations to use a portable pumper to provide for redundancy of the booster stations, and pump water across pressure zone boundaries, to maintain water supply to customers during emergency events.



2019 Projects and Initiatives (continued)

Corporate Goal – Reliability (continued):

- Departmental Initiatives
 - Continue condition assessment of transmission mains to help prioritize investments and determine potential areas of concern.
 - Extend Right-of-Way Maintenance Program into the more developed areas; initiate tracking of current conditions and make plans to repair significant deficiencies. Maintain areas that have already been cleared.

- Continue to replace 1-2 transmission valves each year



- Upgrade the emissions system on one of the two standby power generators at the SLWTF to allow non-emergency operations. This would provide significantly more latitude to meet Load Reduction commitments as well as lower SLWTF Demand during the ISO-NE peak annual hour of electrical Demand, which will lower PWD's Forward Capacity charges.
- Develop a detailed scope of work for the rebuild of Raw Water Pump #1 & Motor in an effort to secure the most realistic bid prices possible. An independent analysis by Predictive Maintenance Diagnostics has indicted bearing wear and reported this pump should be next in line for maintenance in the near future.
- Continue to develop long-term maintenance plan for Storage Facilities to meet AWWA and Partnership for Safe Water standards to insure cost effective reliability, viability, and water quality.



2019 Projects and Initiatives (continued)

Corporate Goal – Affordability

- Corporate Initiative
 - Replace two small dump trucks with one larger dump truck (employee suggestion).

- Replace one backhoe with a small excavator to improve efficiency on certain jobs (employee suggestion).



- Departmental Initiatives
 - Improve large meter testing program to ensure accuracy of meters (employee suggestion).

Corporate Goal – Employees and Work Environment

- Corporate Initiatives
 - Maintain an average of 80 hours of training per employee
 - Active staff participation in safety initiatives, such as a District wide effort to upgrade the confined space portable gas detectors and purchasing more valve/hydrant turners.

- Departmental Initiatives
 - Improve the onboarding process for new employees. Update the initial training process and set benchmarks for 6 month and 1 year intervals.



Financial Overview

The Water Services Budget for 2019 has increased 3.9% or \$331,444. The majority of the increases are for wages & benefits, contracted services, materials and supplies, and chemicals.

A1 - Water Administration area increased 2.1%, with labor and benefits accounting for the \$10,987 increase.

A2 – At \$175,452, Water Transmission & Distribution is increasing by 4.4%. Personnel related expenses are increasing by \$6,671 and are a result of salary increases and increased employee benefit costs. The contracted and temporary employee funds were moved to the A6 department to assist with hydrant inspections in the summer months. Contracted services represent an increase of \$131,420 or 10.4%. Paving expenses, repairs, maintenance, and permits are all expected to increase in 2019. The increase is reflective of the additional operational support required to support road projects and development within the communities.

A3 – Treatment area 2019 budget is increasing 1.3%, \$32,553. Some of the increase can be associated to an increase in chemicals. An industry analysis indicates a projected increase of 10% for sodium hypochlorite, zinc orthophosphate, hydrofluorosilicic acid, and aqua ammonia. Much of this increase is attributable to added industry transportation expenses. The cost of Sodium Hydroxide is projected to increase by as much as 25% in 2019. Prices for chemicals for the next budget year are set after the bidding process is final, which is early typical December. Materials & Supplies budget will increase 9.5% as the SLWTF works to increase ozone inventory of spare parts in an effort to ensure the long-term viability of the ozone and UV treatment equipment. For example, after five years of operating of the new UV treatment equipment with minimal maintenance required, operations will be scheduling complete change outs of the original UV lamps in both UV Reactors over the next year.

A6 – The Utility Services 2019 budget is increasing by \$112,452, or 7.2%. Wages (\$83,729) and benefits (\$11,151) are increasing due to contractual obligations. The contracted temporary employee money (\$28,000) was also moved from A2 to the A6 operations group to assist with hydrant inspections during the summer. Materials and supplies continue to increase for work related to meters, hydrants, and locating (\$12,810.)

Water Services: Total**Financial Summary:**

Column1	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
A1 - Water Administration	\$518,670	\$254,672	\$523,603	\$534,590	\$10,987	2.1%
A2 - Wtr Transmission/Distrib	3,983,867	1,833,484	3,959,395	4,134,847	175,452	4.4%
A3 - Water Treatment	2,405,120	1,231,836	2,423,812	2,456,365	32,553	1.3%
A6 - Water Utility Services	1,421,163	764,260	1,557,219	1,669,671	112,452	7.2%
Grand Total	8,328,820	4,084,252	8,464,029	8,795,473	331,444	3.9%
Expense Type:						
Salaries & Wages	\$2,986,944	\$1,549,307	\$3,132,853	\$3,262,724	\$129,871	4.1%
Employee Benefits	1,446,802	738,055	1,469,171	1,462,802	-6,369	-0.4%
Chemicals	386,141	198,463	394,497	466,126	71,629	18.2%
Contracted Services	1,613,361	654,188	1,521,971	1,648,966	126,995	8.3%
Heat/Fuel Oil	112,285	61,708	80,424	90,088	9,664	12.0%
Insurance	25,010	10,784	26,156	22,772	-3,384	-12.9%
Materials & Supplies	566,636	264,199	563,252	609,673	46,421	8.2%
Other Expense	36,594	24,878	69,558	70,208	650	0.9%
Purchased Power	388,038	200,961	401,919	342,578	-59,341	-14.8%
Tele/Other Utilities	79,429	40,897	97,446	94,127	-3,319	-3.4%
Transportation	687,580	340,812	706,782	725,409	18,627	2.6%
Grand Total	8,328,820	4,084,252	8,464,029	8,795,473	331,444	3.9%
Headcount:						
Full Time	53	54	54	54	0	0.0%
Part Time	0	0	0	0	0	n/a
Total	53	54	54	54	0	0.0%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$509,414	\$287,712	\$586,251	\$612,811	\$26,560	4.5%
660121 - WAGES/REGULAR UNION	1,958,920	1,014,185	2,030,286	2,125,211	94,925	4.7%
660122 - WAGES/OVERTIME UNION	288,170	139,863	292,948	311,386	18,438	6.3%
660123 - WAGES/DOUBLETIME UNION	35,426	18,889	33,758	38,703	4,945	14.6%
660124 - WAGES/STANDBY TIME UNION	107,156	55,861	100,092	104,533	4,441	4.4%
660131 - WAGES - REGULAR - TEMPS	59,299	17,341	49,518	66,080	16,562	33.4%
660132 - WAGES - OVERTIME- TEMPS	338	32	-	-	-	n/a
660136 - CONTRACTED - TEMP	-	1,232	40,000	4,000	(36,000)	-90.0%
66014 - VACATION ACCRUAL	11,611	8,279	-	-	-	n/a
66015 - SICKTIME ACCRUAL	16,610	5,913	-	-	-	n/a
Salaries & Wages Total	2,986,944	1,549,307	3,132,853	3,262,724	129,871	4.1%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	224,423	119,060	236,604	249,295	12,691	5.4%
660405 - SAFETY/WHY PROGRAM ITEMS	11,439	3,611	12,860	15,000	2,140	16.6%
660411 - MEALS ALLOWANCE	9,060	4,420	8,010	8,060	50	0.6%
660413 - PWD TRAINING PROGRAM	1,257	-	-	-	-	n/a
660418 - STIPENDS	5,900	5,300	5,700	6,700	1,000	17.5%
660419 - EMPLOYEE BENEFITS-MISC OTH	23,280	11,405	8,930	10,231	1,301	14.6%
660491 - EE BENEFITS-REG/SAL	1,171,443	594,259	1,197,067	1,173,516	(23,551)	-2.0%
Employee Benefits Total	1,446,802	738,055	1,469,171	1,462,802	(6,369)	-0.4%
Chemicals						
66181 - AMMONIA	25,003	10,556	24,168	23,752	(416)	-1.7%
66182 - CAUSTIC SODA	84,547	57,545	91,905	139,675	47,770	52.0%
66183 - FLUORINE COMPOUND	41,849	16,776	38,557	40,340	1,783	4.6%
66184 - ZINC ORTHOPHOSPHATE	68,339	30,115	71,461	74,727	3,266	4.6%
66185 - SODIUM HYPOCHLORITE	98,826	52,113	110,191	125,730	15,539	14.1%
661892 - LIQUID OXYGEN (LOX)	63,216	31,358	58,215	61,902	3,687	6.3%
661821 - CAUSTIC SODA - ACCRUAL	4,361	-	-	-	-	n/a
Chemicals Total	386,141	198,463	394,497	466,126	71,629	18.2%
Contracted Services						
6631 - ENGINEERING SERVICES	83,124	27,028	112,300	112,000	(300)	-0.3%
66352 - CONSTRUCTION SERVICES	386	2,975	4,500	5,500	1,000	22.2%
663521 - TRAFFIC CONTROL	51,700	31,290	59,500	59,500	-	0.0%
6635221 - PAVING - MINOR REPAIR	552,585	184,944	426,000	526,000	100,000	23.5%
663523 - SIDEWALK	12,690	6,782	18,500	18,500	-	0.0%
663524 - STREET OPENING	52,933	24,948	60,680	61,100	420	0.7%
663525 - CONTRACTOR CONSTRUCTION	606,566	242,966	558,000	588,000	30,000	5.4%
663527 - EMERGENCY RESPONSE- FEMA	8,158	425	360	425	65	18.1%
66353 - REPAIR SERVICES	23,733	2,156	31,500	25,500	(6,000)	-19.0%
66354 - MAINTENANCE SERVICES	134,866	82,076	151,249	157,579	6,330	4.2%
663542 - LARGE METER TESTING	1,387	1,553	12,500	6,500	(6,000)	-48.0%
663546 - MAINTENANCE - SNOW REMOVL	40,888	23,600	36,219	36,219	-	0.0%
663561 - COMPUTER LICENSES	16,986	16,737	17,163	17,163	-	0.0%
663574 - DISPOSAL SERVICES	6,798	1,060	4,690	4,690	-	0.0%
663587 - COURIER SERVICES	2,181	1,098	2,190	2,320	130	5.9%
663588 - EQUIPMENT MAINTENANCE	11,484	1,720	12,120	10,470	(1,650)	-13.6%
663594 - DIGSAFE	5,000	500	-	-	-	n/a
6635982 - TREE TRIMMING / REMOVAL	-	-	7,000	7,000	-	0.0%
663599 - MISC OTHER SERVICES	1,896	2,330	7,500	10,500	3,000	40.0%
Contracted Services Total	1,613,361	654,188	1,521,971	1,648,966	126,995	8.3%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Heat/Fuel Oil						
66161 - HEATING OIL	\$93,068	\$51,856	\$65,434	\$68,055	\$2,621	4.0%
661622 - CONTAINER DELIVERED	19,147	9,852	14,990	22,033	7,043	47.0%
66166 - UNLEADED GAS	70	-	-	-	-	n/a
Heat/Fuel Oil Total	112,285	61,708	80,424	90,088	9,664	12.0%
Insurance						
66599 - PROPERTY & BOILER INSUR	25,010	10,784	26,156	22,772	(3,384)	-12.9%
Insurance Total	25,010	10,784	26,156	22,772	(3,384)	-12.9%
Materials & Supplies						
6619 - ASSET PURCHASES	32,973	19,772	31,590	47,275	15,685	49.7%
662012 - CRUSHED GRAVEL	504	768	550	550	-	0.0%
662014 - CRUSHED STONE	324	-	-	-	-	n/a
662015 - LOAM	120	75	-	-	-	n/a
662016 - SAND	-	-	3,820	3,820	-	0.0%
662017 - SAND AND SALT	1,020	672	3,452	3,452	-	0.0%
66202 - TOOLS	45,258	12,045	20,395	25,850	5,455	26.7%
66203 - VENDOR PURCHASED SUPPLIES	103,518	58,407	110,518	119,820	9,302	8.4%
662041 - MATERIALS INVENTORY	144,852	62,012	164,743	148,190	(16,553)	-10.0%
662042 - SUPPLIES INVENTORY	47,479	26,624	22,495	37,365	14,870	66.1%
66204201 - INVENTORY - QPR	635	204	2,500	2,500	-	0.0%
66204202 - INVENTORY - BNKRUN GRAVEL	13,696	5,201	8,750	14,000	5,250	60.0%
66204203 - INVENTORY - CRUSHD GRAVEL	38,543	12,634	17,000	18,750	1,750	10.3%
66204204 - INVENTORY - CRUSHED STONE	2,163	527	700	1,700	1,000	142.9%
66204205 - INVENTORY - LOAM	(4)	377	2,250	2,250	-	0.0%
662043 - TOOL INVENTORY	69,341	42,169	54,100	62,850	8,750	16.2%
66204301 - INVENTORY - TONER	-	90	-	-	-	n/a
66204302 - INVENTORY - PAPER	1,227	771	2,913	1,100	(1,813)	-62.2%
66204303 - INVENTORY-COMPUTER EQUIP	(8,566)	(13,832)	17,350	17,850	500	2.9%
662044 - METER INVENTORY	46,374	29,041	67,150	69,400	2,250	3.4%
662046 - HYDRANT INVENTORY	3,361	1,386	2,900	3,150	250	8.6%
662047 - GARAGE INVENTORY	11,037	1,904	12,625	12,200	(425)	-3.4%
66205 - CONSUMABLE SUPPLIES	10,382	3,150	17,451	17,601	150	0.9%
66206 - COMPUTER RELATED EQUIP	2,127	-	-	-	-	n/a
662018 - BANKRUN GRAVEL	272	202	-	-	-	n/a
Materials & Supplies Total	566,636	264,199	563,252	609,673	46,421	8.2%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Other Expense						
6641 - BUILDING/REAL PROP RENT	\$12,320	\$0	\$5,600	\$6,600	\$1,000	17.9%
6642 - EQUIPMENT RENT	2,467	10,853	13,000	13,000	-	0.0%
667511 - TRAINING & CONFERNCES	552	1,435	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	21,775	15,671	27,110	29,145	2,035	7.5%
6675112 - OUT OF STATE TRAINING/CON	3,770	519	-	3,500	3,500	n/a
6675121 - IN STATE CONFERENCES	18	-	-	-	-	n/a
6675122 - OUT-OF-STATE CONFERENCES	318	-	3,500	3,500	-	0.0%
667513 - DUES	1,000	1,000	4,688	4,688	-	0.0%
667514 - PROFESSIONAL LICENSES	2,918	690	4,345	4,720	375	8.6%
667515 - PERIODICAL SUBSCRIPTIONS	-	99	200	200	-	0.0%
667516 - PERMITS	1,070	80	781	781	-	0.0%
667518 - REGULATORY REQUIRED FEES	2,281	1,980	4,378	4,378	-	0.0%
667521 - POSTAGE - THIRD PARTY	118	261	100	100	-	0.0%
667522 - POSTAGE - INTERNAL	-	74	200	200	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	6,800	2,750	8,676	8,676	-	0.0%
667531 - POSTING COSTS	7,988	2,950	8,676	8,676	-	0.0%
667554 - EPA / OSHA COMPLIANCE	872	-	4,000	2,000	(2,000)	-50.0%
667555 - SAFETY EXPENSES	-	150	17,720	14,720	(3,000)	-16.9%
667591 - UNIFORMS	-	198	-	-	-	n/a
667592 - FOOD SUPPLIES	1,105	635	460	460	-	0.0%
667599 - OTHER MISCELLANEOUS	4,410	1,083	-	-	-	n/a
6676 - EXPENSE OFFSET	(25,200)	(12,600)	(25,200)	(26,460)	(1,260)	5.0%
Other Expense Total	36,594	24,878	69,558	70,208	650	0.9%
Purchased Power						
66151 - POWER - LARGE ENERGY	178,315	80,185	173,594	121,315	(52,279)	-30.1%
66152 - POWER - LARGE T&D	88,159	47,131	100,704	91,830	(8,874)	-8.8%
66153 - POWER - MEDIUM ENERGY	39,926	24,028	40,407	39,116	(1,291)	-3.2%
66154 - POWER - MEDIUM T&D	35,536	16,841	30,648	32,978	2,330	7.6%
66155 - POWER - SMALL ENERGY	12,503	9,401	13,937	15,511	1,574	11.3%
66156 - POWER - SMALL T&D	18,522	10,411	16,950	18,715	1,765	10.4%
66157 - POWER - OTHER CHARGES	23,658	17,259	36,964	36,570	(394)	-1.1%
66158 - LOAD RESPONSE	(8,581)	(4,594)	(18,785)	(14,500)	4,285	-22.8%
66159 - POWER - CAPACITY	-	299	7,500	1,043	(6,457)	-86.1%
Purchased Power Total	388,038	200,961	401,919	342,578	(59,341)	-14.8%
Tele/Other Utilities						
66101 - WATER	3,557	1,769	3,891	3,500	(391)	-10.0%
66102 - WASTEWATER	17,270	8,025	24,588	20,000	(4,588)	-18.7%
66103 - STORMWATER CHARGES	-	(713)	-	-	-	n/a
66111 - TELEPHONE LINES	4,647	2,733	4,620	5,580	960	20.8%
66112 - DATA LINES	42,871	23,598	47,100	47,820	720	1.5%
66113 - CELLULAR PHONES	10,693	5,485	17,100	16,980	(120)	-0.7%
66114 - PAGERS	391	-	147	247	100	68.0%
Tele/Other Utilities Total	79,429	40,897	97,446	94,127	(3,319)	-3.4%
Transportation						
66501 - TRANSPORTATION - INTERNAL	375,308	199,291	399,841	417,671	17,830	4.5%
665019 - TRANS INTERNAL INACTIVE	282,815	130,808	246,502	255,663	9,161	3.7%
66502 - TRANSPORTATION - EXTERNAL	25,535	8,051	56,900	47,400	(9,500)	-16.7%
66503 - MILEAGE REIMBURSEMENT	3,918	2,662	3,539	4,675	1,136	32.1%
66504 - MTA TRANS-PASS TOLL FEES	4	-	-	-	-	n/a
Transportation Total	687,580	340,812	706,782	725,409	18,627	2.6%
Grand Total	8,328,820	4,084,252	8,464,029	8,795,473	331,444	3.9%

Water Services: Water Administration (A1)

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$322,549	\$160,108	\$331,914	\$345,159	\$13,245	4.0%
Employee Benefits	184,225	90,482	178,085	175,528	-2,557	-1.4%
Contracted Services	20	0	0	0	0	n/a
Materials & Supplies	2,560	628	1,964	1,700	-264	-13.4%
Other Expense	6,611	2,557	8,093	9,378	1,285	15.9%
Tele/Other Utilities	1,402	552	2,340	2,100	-240	-10.3%
Transportation	1,303	345	1,207	725	-482	-39.9%
Grand Total	518,670	254,672	523,603	534,590	10,987	2.1%
Programs:						
98 - Training	19,707	13,751	22,978	26,200	3,222	14.0%
99 - Administration	498,963	240,921	500,625	508,390	7,765	1.6%
Grand Total	518,670	254,672	523,603	534,590	10,987	2.1%
Funds:						
10 - General	111,229	39,627	97,688	99,587	1,899	1.9%
20 - Water General	407,005	215,045	423,915	435,003	11,088	2.6%
50 - Wastewater General	436	0	2,000	0	-2,000	-100.0%
Grand Total	518,670	254,672	523,603	534,590	10,987	2.1%
Headcount:						
Full-Time	5	5	5	5	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	5	5	5	5	0	0.0%

Sebago Lake
Water Treatment
Facility



Water Services: Water Transmission/Distribution (A2)

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$1,189,463	\$604,467	\$1,222,957	\$1,236,456	\$13,499	1.1%
Employee Benefits	566,143	281,802	546,507	539,679	-6,828	-1.2%
Contracted Services	1,359,989	511,960	1,258,130	1,389,550	131,420	10.4%
Materials & Supplies	324,082	170,590	341,598	363,635	22,037	6.5%
Other Expense	30,737	9,548	35,200	40,700	5,500	15.6%
Tele/Other Utilities	9,557	3,991	12,564	12,853	289	2.3%
Transportation	503,896	251,126	542,439	551,974	9,535	1.8%
Grand Total	3,983,867	1,833,484	3,959,395	4,134,847	175,452	4.4%
Programs:						
1 - Seasonal Mains	130,366	72,657	118,551	132,316	13,765	11.6%
10 - General Distribution	210,267	193,401	262,025	260,380	-1,645	-0.6%
11 - Mains & Valves Maint	1,636,882	571,599	1,408,894	1,563,299	154,405	11.0%
12 - Services Maintenance	481,091	292,442	621,309	591,299	-30,010	-4.8%
13 - Emergency Maintenance	0	138	0	0	0	n/a
14 - Distribution Flushing	0	244	0	0	0	n/a
15 - Digsafe Locates	857	1,248	0	563	563	n/a
17 - Hydrant Maintenance	256,584	143,870	255,807	269,385	13,578	5.3%
18 - Water Treatment Maint	69	107	0	0	0	n/a
2 - Meter Reading	2,929	1,077	10,442	9,328	-1,114	-10.7%
20 - Meter Service	1,197	316	0	0	0	n/a
25 - Water Storage Maintenance	0	156	0	0	0	n/a
4 - Paving (Mains)	138,020	14,326	313,802	308,316	-5,486	-1.7%
44 - WW Pumping	888	3,040	944	1,195	251	26.6%
45 - WW Treatment	6,211	0	0	3,339	3,339	n/a
90 - Vehicles	31,452	27,594	28,752	33,160	4,408	15.3%
91 - Snow Removal	32,903	26,392	32,455	28,289	-4,166	-12.8%
92 - Bulk Materials Adjustment	13,779	0	0	2,500	2,500	n/a
98 - Training	101,604	63,887	98,923	110,621	11,698	11.8%
99 - Administration	938,768	420,990	807,491	820,857	13,366	1.7%
Grand Total	3,983,867	1,833,484	3,959,395	4,134,847	175,452	4.4%
Funds:						
10 - General	743,887	351,641	579,307	612,928	33,621	5.8%
20 - Water General	3,230,892	1,477,882	3,379,144	3,515,345	136,201	4.0%
30 - Water Standish	1,983	921	0	2,040	2,040	n/a
51 - WW Cape Elizabeth	0	0	472	457	-15	-3.2%
53 - WW Cumberland	0	3,040	0	0	0	n/a
57 - WW Portland	6,536	0	472	3,515	3,043	644.7%
62 - WW Westbrook	111	0	0	281	281	n/a
64 - WW Joint Westbrook	452	0	0	281	281	n/a
66 - WW Peaks Island	6	0	0	0	0	n/a
Grand Total	3,983,867	1,833,484	3,959,395	4,134,847	175,452	4.4%
Headcount:						
Full-Time	22	22	22	22	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	22	22	22	22	0	0.0%

Water Services: Water Treatment (A3)

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$714,006	\$354,435	\$713,071	\$732,469	\$19,398	2.7%
Employee Benefits	343,765	159,632	340,548	332,413	-8,135	-2.4%
Chemicals	386,141	198,463	394,497	466,126	71,629	18.2%
Contracted Services	229,419	135,068	239,221	242,446	3,225	1.3%
Heat/Fuel Oil	112,285	61,708	80,424	90,088	9,664	12.0%
Insurance	25,010	10,784	26,156	22,772	-3,384	-12.9%
Materials & Supplies	131,151	61,905	124,387	136,225	11,838	9.5%
Other Expense	-18,339	1,169	4,336	-3,424	-7,760	-179.0%
Purchased Power	388,038	200,961	401,919	342,578	-59,341	-14.8%
Tele/Other Utilities	56,989	30,561	64,782	62,014	-2,768	-4.3%
Transportation	36,655	17,150	34,471	32,658	-1,813	-5.3%
Grand Total	2,405,120	1,231,836	2,423,812	2,456,365	32,553	1.3%
Programs:						
1 - Seasonal Mains	2,668	0	1,248	2,652	1,404	112.5%
11 - Mains & Valves Maint	1,960	915	2,002	2,607	605	30.2%
12 - Services Maintenance	552	20	952	758	-194	-20.4%
17 - Hydrant Maintenance	38	0	0	133	133	n/a
18 - Water Treatment Maint	113,407	56,241	118,304	98,078	-20,226	-17.1%
2 - Meter Reading	0	0	124	133	9	7.3%
24 - Distribution Operations	311,937	178,021	280,533	291,470	10,937	3.9%
25 - Water Storage Maintenance	28,770	5,765	39,824	31,687	-8,137	-20.4%
28 - Monitoring	31	16	0	0	0	n/a
34 - Distribution Maintenance	26,029	25,499	45,622	37,132	-8,490	-18.6%
6 - Water Treatment	1,644,646	837,406	1,693,235	1,730,905	37,670	2.2%
94 - Technology Teams	579	0	0	1,774	1,774	n/a
98 - Training	36,224	16,424	42,116	51,819	9,703	23.0%
99 - Administration	238,279	111,529	199,852	207,217	7,365	3.7%
Grand Total	2,405,120	1,231,836	2,423,812	2,456,365	32,553	1.3%
Funds:						
10 - General	233,299	101,810	198,741	217,081	18,340	9.2%
20 - Water General	2,126,607	1,104,669	2,117,884	2,190,029	72,145	3.4%
30 - Water Standish	45,214	25,357	107,187	49,255	-57,932	-54.0%
Grand Total	2,405,120	1,231,836	2,423,812	2,456,365	32,553	1.3%
Headcount:						
Full-Time	11	11	11	11	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	11	11	11	11	0	0.0%

Water Services: Water Utility Services (A6)

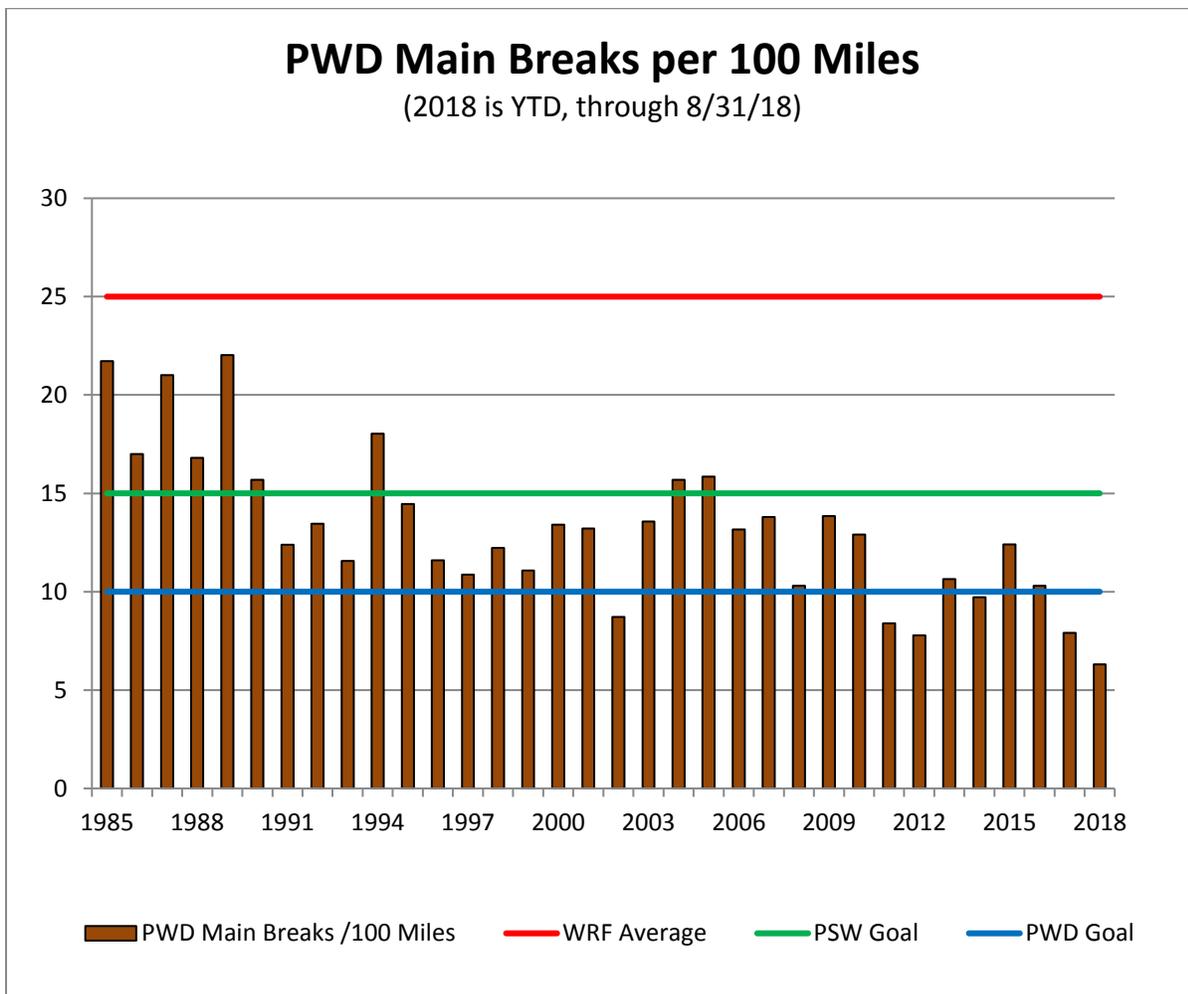
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$760,926	\$430,297	\$864,911	\$948,640	\$83,729	9.7%
Employee Benefits	352,669	206,139	404,031	415,182	11,151	2.8%
Contracted Services	23,933	7,160	24,620	16,970	-7,650	-31.1%
Materials & Supplies	108,843	31,076	95,303	108,113	12,810	13.4%
Other Expense	17,585	11,604	21,929	23,554	1,625	7.4%
Tele/Other Utilities	11,481	5,793	17,760	17,160	-600	-3.4%
Transportation	145,726	72,191	128,665	140,052	11,387	8.9%
Grand Total	1,421,163	764,260	1,557,219	1,669,671	112,452	7.2%
Programs:						
1 - Seasonal Mains	53,280	30,185	49,969	58,716	8,747	17.5%
10 - General Distribution	57,344	28,592	53,770	63,871	10,101	18.8%
11 - Mains & Valves Maint	9,375	6,813	7,740	10,167	2,427	31.4%
12 - Services Maintenance	2,569	1,438	3,327	3,432	105	3.2%
14 - Distribution Flushing	65,943	24,654	100,042	88,971	-11,071	-11.1%
15 - Digsafe Locates	236,966	123,151	245,441	234,507	-10,934	-4.5%
16 - Cross Connection	20,448	16,712	26,477	24,520	-1,957	-7.4%
17 - Hydrant Maintenance	96,195	69,301	94,815	144,804	49,989	52.7%
19 - Winter Hydrant Pump	51,874	8,089	54,404	52,608	-1,796	-3.3%
2 - Meter Reading	124,380	33,981	96,939	104,208	7,269	7.5%
20 - Meter Service	88,765	47,861	115,735	114,839	-896	-0.8%
21 - Large Meter Testing	-13,513	1,748	30,838	37,393	6,555	21.3%
22 - Meter Replacement Pro	4,335	1,685	5,530	608	-4,922	-89.0%
26 - Submeters	1,052	326	2,647	1,260	-1,387	-52.4%
3 - Leak Surveys	4,700	0	12,514	6,607	-5,907	-47.2%
31 - Vehicle Cleaning	3,814	816	2,204	3,490	1,286	58.3%
34 - Distribution Maintenanc	39	0	335	0	-335	-100.0%
4 - Paving (Mains)	496	0	417	0	-417	-100.0%
7 - General Investigation	192,324	97,313	218,573	236,479	17,906	8.2%
76 - Collection	16,429	7,166	20,004	20,682	678	3.4%
90 - Vehicles	1,714	2,584	1,563	1,896	333	21.3%
94 - Technology Teams	44	0	502	0	-502	-100.0%
98 - Training	72,713	47,955	67,996	82,661	14,665	21.6%
99 - Administration	329,877	213,890	345,437	377,952	32,515	9.4%
Grand Total	1,421,163	764,260	1,557,219	1,669,671	112,452	7.2%
Funds:						
10 - General	482,650	282,752	506,314	500,497	-5,817	-1.1%
20 - Water General	911,441	479,428	1,042,011	1,162,659	120,648	11.6%
30 - Water Standish	12,359	1,754	5,579	5,255	-324	-5.8%
50 - Wastewater General	0	0	668	0	-668	-100.0%
51 - WW Cape Elizabeth	79	45	559	197	-362	-64.8%
53 - WW Cumberland	8,487	0	402	197	-205	-51.0%
55 - WW Windham LF	641	0	0	0	0	n/a
57 - WW Portland	388	44	402	236	-166	-41.3%
59 - WW South Portland	195	227	402	236	-166	-41.3%
61 - WW Gorham	4,824	0	402	197	-205	-51.0%
62 - WW Westbrook	99	10	480	197	-283	-59.0%
Grand Total	1,421,163	764,260	1,557,219	1,669,671	112,452	7.2%
Headcount:						
Full-Time	15	16	16	16	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	15	16	16	16	0	0.0%

Water Services

A key determinant of Water Services budget is the number of water main breaks. Main breaks occur for a number of reasons, including age, pressure surges, and cold weather. The long-term trend indicates a declining number of leaks partially due to the capital investments made in prior years by targeting the replacement of aging pipes.

The Water Research Foundation (WRF) states that the average number of main breaks in North America is 25 breaks per 100 miles of main per year. The Partnership for Safe Water (PSW), a group supported by US EPA, the American Water Works Association, among others, recommends a goal of less than 15 main breaks per 100 miles of main per year. The Portland Water District (PWD) strives to meet a service level goal of 10 main breaks per 100 miles of main per year.

The operating budget assumes the typical number of main breaks in a year. As the chart indicates, some years are significantly higher than average resulting in significantly higher expenses.



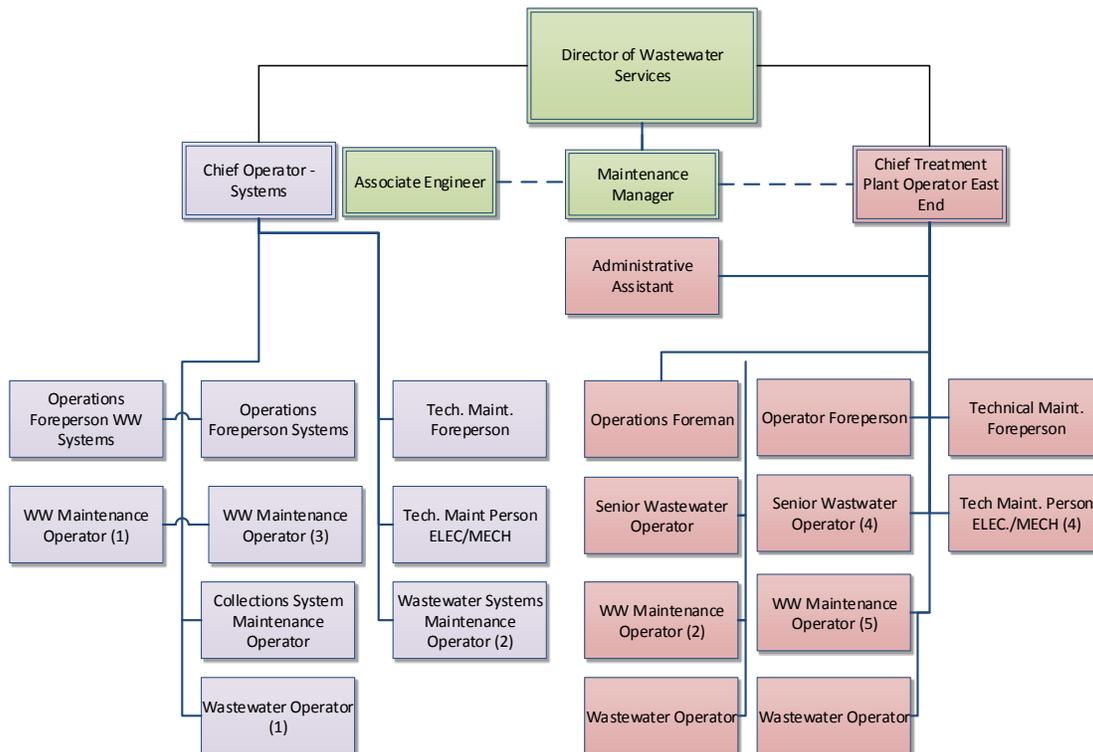
Wastewater Services – Purpose Statement

To provide effective high quality customer-oriented wastewater collection and treatment services in an efficient and responsive manner meeting all federal and state of Maine discharge standards while protecting the surface and receiving waters of Casco Bay.

Core Services

The Portland Water District’s Wastewater Services Group is responsible for portions of the wastewater infrastructure in Cape Elizabeth, Cumberland, Gorham, Portland (including Peaks Island), Westbrook and Windham. Further, the Portland Water District owns and operates the Westbrook/Gorham/Windham Regional treatment plant, the Cape Elizabeth treatment plant, the Peaks Island treatment plant, and the East End treatment plant in Portland.

Administration for the Wastewater Services Group is comprised of the Director of Wastewater Services who oversees and provides administrative support to the operational units (Wastewater Administration – B1; green in organization chart). In 2017, the maintenance manager position was created to further our asset management system. Operation and maintenance staff of 23 are directly responsible for the operation and maintenance of our four treatment plants (Treatment – B3; red in organization chart). Operators from each area are regularly involved in the operation of all four treatment facilities’ and several of our pump stations. Wastewater Systems staff of 13 people is responsible for the operation and maintenance of interceptors, force mains, pump stations, collectors, flow monitoring, and combined sewer regulators in with the water operations groups (Systems – L9; purple in organization chart). The operator training program includes regular laboratory training to ensure our operators can perform the required regulatory testing to assist in the monitoring of our wastewater operations.

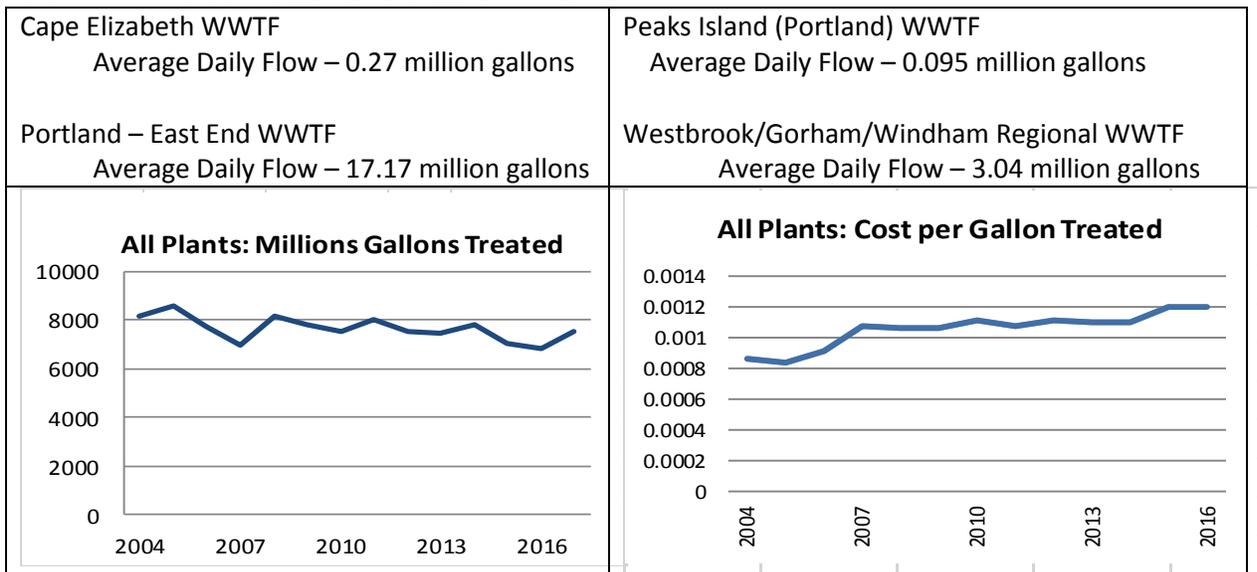


Key Statistics

Wastewater Services Group Facts

- The Wastewater Services Group operates four wastewater treatment plants and provides sewer services to six communities. The East End treatment plant is the largest municipal treatment facility in Maine.
- Our Combined Sewer Overflow (CSO) program includes a web-based system that allows for near real-time monitoring and alarming of over 90% of the total overflow sites for PWD and several member municipalities. The majority of these meters were replaced in 2017. The system regularly demonstrates a 95% uptime rate.
- The East End Treatment plant maximizes flow to the treatment facility during wet weather events as a critical component of the City of Portland’s CSO management efforts, treating about half of the total wet weather flow generated in the collection system. This effort reduces the overall CSO discharge in Portland by nearly 50%.
- The Wastewater Operator apprentice program has been operating for seven years. This effort has helped address workforce management issues due to employee retirements. These positions work in each of our treatment plants and the wastewater systems and pumping group. Also they assist the Engineering Services group with the asset management program. Operators in the past participated in a lab immersion effort that provides training and proficiency in many of the routine testing requirements operators are required to complete. Through the combined efforts, we have completed asset inventories at the Cape Elizabeth, Peaks Island, and most of the Westbrook/Gorham/Windham Regional wastewater treatment plants.
- Following the recent diffused aeration system upgrade at the East End WWTF, staff has embarked on seasonal nutrient optimization efforts to reduce nitrogen discharges from the treatment plant. Efforts in 2018 have exceeded the target of a 20-40% seasonal reduction of past nitrogen loadings by reducing the effluent nitrogen loading by 72% from May to August.
- The aeration system upgrade at the East End WWTF, the construction of an odor control system at the East End plant’s Northeast Pump Station, and installation of an odor control system in the Peaks Island WWTF have dramatically reduced the number of odor complaints received.

Wastewater Treatment Facilities – 2017



Wastewater Systems Responsibility

Cape Elizabeth – Interceptors, force mains, and 27 pump stations
Cumberland – Collectors, interceptors, force mains and 13 pump stations
Gorham – Collectors, interceptors, force mains and 17 pump stations
Portland – Interceptors, force mains, 21 combined sewer regulators, CSO monitoring, and 10 pump stations
Peaks Island (Portland) – Collectors, interceptors, force mains, storm drain system and 4 pump stations
Westbrook – Interceptors, force mains, 5 combined sewer regulators, CSO monitoring and 3 pump stations
Windham – Collectors, force mains and 2 pump stations

Performance Benchmarks

	2017 Actual	2018 Projected	2019 Goal
<u>Wastewater Systems</u>			
Corporate Goal - Environment			
Wet wells cleaned	165	150	>125
Feet of pipe cleaned	17,585	18,000	>20,000
Feet of pipe televised*	34,000	30,000	>30,000
Dry weather overflows	6	5	0
Corporate Goal -Reliability			
Corrective Maintenance tasks	132	110	<200
Corporate Goal -Affordability			
Preventive Maintenance tasks	1,545	1,100	1,000
<u>Treatment Operations</u>			
Corporate Goal - Environment			
Total license excursions	27	20	0
Corporate Goal -Reliability			
Biosolids removed (wet tons)	28,226	23,000	<21,500
% BOD removed	94	94	>85
% suspended solids removed	95	94	>85

*Note: PWD has completed a 10 year effort to inspect/CCTV the collection and interception system and these levels will decrease as the results of this program are evaluated.

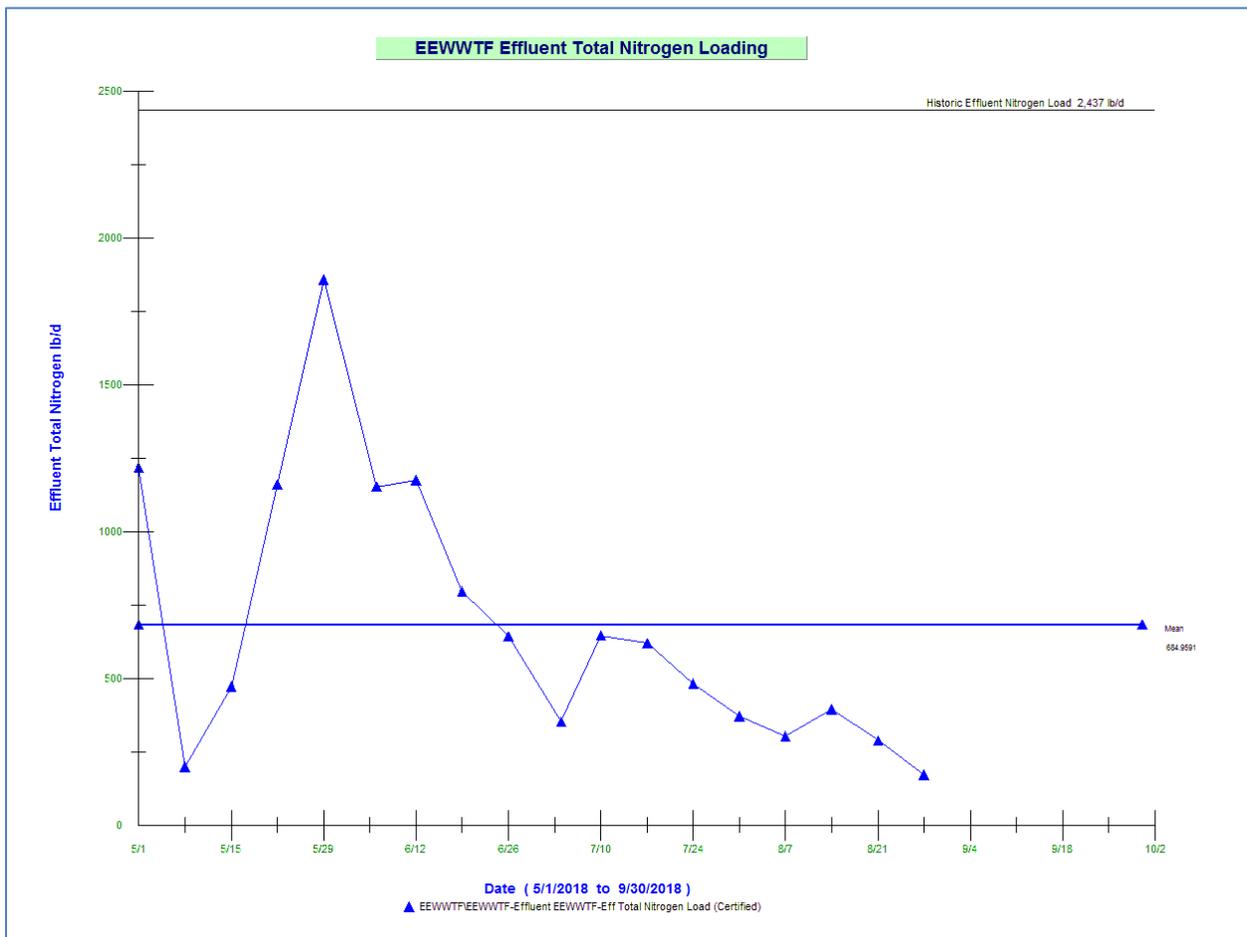
Past Accomplishments

- Flow monitoring of combined sewer overflow events:
 - PWD continuously monitors over 90% of all combined sewer overflows in Portland, Westbrook, and Cape Elizabeth. This program has assisted in the development of Long Term CSO Control Plans in Portland, Westbrook, and Cape Elizabeth.
 - The Draft Ottawa Road CSO Long Term Control Plan was submitted to Maine Department of Environmental Protection in December 2011 and was approved in September 2013. The 5-year plan began in 2014. The plan's projects are expected to lower the frequency and volume of overflow during extreme wet weather events by addressing private sources of infiltration and inflow in the collection systems of Cape Elizabeth and South Portland. Both the Town of Cape Elizabeth and the City of South Portland have completed an inventory of private sources of inflow & infiltration (I/I). Cape Elizabeth is currently working to install additional storm drainage to accommodate possible redirected private sources of I/I to the storm sewer system and has addressed 35 of 37 known sources of private I/I in 2018. South Portland is currently working to address 10 private sources of I/I and is lining its collection system pipe in the area to reduce infiltration and is expected to complete the project in 2018. Flow monitoring over the next 6 to 12 months will be completed to determine the actual reductions achieved by Cape Elizabeth and South Portland.
 - Using data from the flow monitoring system, sources of seawater inflow to the Portland collection system are monitored and any increases are investigated to minimize the inflow of seawater. The Long Wharf Tide Gate was replaced to eliminate excessive inflow from the outlet. The tide gate replacement for India St. and the Northeast Outfall will further support the effort to mitigate seawater inflow. Seawater inflow accounts for approximately 5 - 8% of the annual treatment plant flow in Portland.

- Effluent Permits and East End Nutrient Optimization Efforts
 - The Cape Elizabeth Wastewater Treatment Facility permit was renewed in late 2016. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards. Monitoring of effluent nitrogen was required from May through October 2017. Monthly monitoring from May through October 2018 was continued. The facility is generally able to reduce the effluent total nitrogen.
 - The East End Wastewater Treatment Facility permit was renewed in 2017. This effort included a number of stakeholders and the Department of Environmental Protection. The negotiated "nutrient optimization approach" for managing nitrogen includes effluent monitoring from May to October, operational efforts to reduce nitrogen (leveraging improvements made during the aeration system upgrade), and participation in the City of Portland's Integrated Planning efforts. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards. From May through September 2018, a 72% reduction in effluent nitrogen was achieved (the target was a 20 to 40% seasonal reduction).

Past Accomplishments (continued)

- The Westbrook/Gorham Regional Wastewater Treatment Facility permit was renewed in 2017. The permit included a significant reduction in routine monitoring requirements due to the plant’s historical performance relative to regulatory standards along with monthly requirements to monitor effluent phosphorus during the summer months.
- The Peaks Island Wastewater Treatment Facility permit was renewed in 2017. The permit included a significant reduction in routine monitoring requirements due to the plant’s historical performance relative to regulatory standards. Monitoring of effluent nitrogen was required from May through October. The facility is generally able to reduce the effluent total nitrogen.



- Westbrook/Gorham/Windham Regional Treatment Facility upgrades
 - The dewatering system was replaced in 2018 with a new screw press. Start-up of the system has been prolonged and staff is working to achieve the projected performance.
 - We expect that phosphorus (and possibly nitrogen) limits may be considered in future permit renewals, including the upcoming 2022 renewal. The design of the aeration system will likely contemplate this possibility.

Past Accomplishments (continued)

- Improvements to Pump Station reliability
 - PWD monitors all systems through a SCADA computer system. Treatment plants can be remotely operated from the East End Treatment Facility, the Westbrook/Gorham Regional Treatment Facility, or the Douglass St. Office during emergencies using the SCADA system.
 - To improve the reliability of systems during power interruption, PWD requires generators at new pump stations and has installed an average of 3 generators per year at its existing pump stations. The majority of pump stations that require emergency generators have been upgraded or have had generators installed during construction as part of our new infrastructure standards. Bypass connections are also installed to allow the stations to be serviced by a portable pumping unit if needed.
 - Staff completed an assessment of all pump stations in 2014. A summary report has been prepared for each community that PWD serves. These findings continue to guide the development and implementation of our long-range capital improvement program. The assessment is updated following station upgrades.
 - In 2016, treatment plant staff assumed daily operational responsibility for the Northeast Pump Station (located at the foot of the East End treatment plant). Treatment operators already assist with the daily operation of the Spurwink Pump Station in Cape Elizabeth and with the routine management of screenings at Westbrook pump stations.
 - The Fore River Pump Station pumps were replaced in 2017 with the second phase of the upgrade planned for 2019.
 - The Dana Court Pump Station upgrade is on-going with the capacity of the pump station being increased to manage wet weather flows.
 - The Northeast Pump Station was upgraded with an odor control system to manage odors from the facility. Coupled with the aeration upgrade at the East End Plant, and staff housekeeping efforts, odors from the facility have decreased significantly.
- Wastewater Services Department changes
 - The Wastewater Operator apprentice program continues to train operators to assist with workforce management as pending retirements in the coming years. Operators from this program have moved into higher-level positions. The addition of laboratory training in 2016 further enhanced the program. Nearly 1/2 of our wastewater operators have been through the program and have subsequently advanced.
 - Changes to job descriptions to enable operators to work in both the treatment and systems areas have increased the knowledge and capabilities of our operators.
 - With the retirement of one of the Chief Operators in 2017, the position of a Maintenance Manager (Planning and Scheduling) was created. This position will assist Chief Operators and staff in the further refinement of operational scheduling and preventive maintenance efforts.
 - An Associate Engineer position will be added to the Wastewater Services to assist with Capital Project Implementation and operational enhancement efforts.

Past Accomplishments (continued)

- East End Wastewater Treatment Plant
 - The construction of the diffused air system at the East End treatment plant was completed in the summer of 2017. Staff has noted a significant reduction in odors from the aeration system and improved process performance.
 - One rotary press was rebuilt in 2017/2018. This has improved the performance of the system and solids concentrations have increased to just over 20%.
 - One primary clarifier was upgraded in 2018 with the remaining 2 clarifiers planned for 2019.
 - New local limits for BOD and TSS were implemented in 2017. The aeration system improvements have resulted in increased monthly allowable loadings and the program has been changed to regulate the mass discharge of high strength waste dischargers. This has eliminated the screening uniform local limit that challenged a number of dischargers. This change is still protective of the treatment plant.

On July 26, 2018, there was an overflow from the chlorine contact tanks during a wet weather event. The overflow released 1.69 million gallons of partially treated and chlorinated wastewater, and washed away a 20 foot section of the adjacent walking path and embankment along the water. The damage was repaired within a week of the event. The Department of Environmental Protection has informed the District that they plan to take enforcement action and will include all violations of the permit back to 2013 in that action.

2019 Projects and Initiatives

B1 – Administration

- We continue to monitor changing regulations related to phosphorus, nitrogen, and high flow management. With the renewal of permits at the treatment plants, we will monitor efforts that could affect the next permit in 2022.
- The City of Portland has embarked on a two-year Integrated Planning effort to prioritize water quality commitments. This effort will assess combined sewer, stormwater, and wastewater treatment obligations and prioritize the use of resources to address the various efforts with a goal of improving receiving water quality.
- Staff will continue to work closely with our municipal partners in the planning and execution of Long Term Control Plans and other efforts to further manage and mitigate peak wet weather flows. The City of Westbrook has been very active in the implementation of a number of projects that are expected to reduce wet weather flows.
- With the completion of the Island Avenue sewer extension project and eventual connect of those customers adjacent to the new sewer, the capacity in the treatment plant has essentially been reached. In 2018, an analysis of the current capacity, along with suggested upgrades or opportunities for capacity improvements was completed. The Peaks Island Plant has reached the full capacity with I/I reductions likely providing the greatest opportunity for further capacity.
- A “nutrient optimization” report that describes the efforts and challenges of the plant’s efforts to attempt to manage the effluent nitrogen loading will be completed in 2018. This is a requirement of the 2017 permit. While there have been some disinfection system struggles due to the impact of ammonia removal, the plant has achieved an average of 72% reduction in historical nitrogen loading from May to September.
- Through our Wastewater Operator training program and increasingly through trained operators, we continue to work with the AMaP Department to further develop our asset management system. Significant effort is being applied cooperatively between operations and AMaP towards the documentation of new systems during the design and construction phase of projects. The addition of the new Maintenance Manager (Planning and Scheduling) will help to move this effort forward. The addition of an Associate Engineer position will assist with project implementation.

2019 Projects and Initiatives (continued)

B3, L9 – Operations

- Treatment Plant Operators continue to focus on effluent compliance including making process control adjustments to the operation of the treatment plant as needed, most recently in efforts to manage effluent nitrogen from the Cape Elizabeth, Peaks Island, and East End WWTFs.
- The operations team continues to focus on implementing safe work practices throughout the workplace. Focus areas include confined space, lock-out tag-out programs, electrical safety, and the regular use of personal protective equipment by staff. The new Maintenance Manager (Planning and Scheduling) will help to move this effort forward.
- Staff continues to work to manage odors from our treatment facilities. The number of odor complaints has been reduced significantly.
- In 2016, wastewater systems acquired a new Vactor 2100 series truck that replaced the 13 year old vactor truck. The addition of this truck will further enable operations crews to maintain wet wells, clean lines, and remove debris from catch basins. A new remote control feature and longer reach with its “snorkel” have already proven useful, allowing operators to access difficult sites in a safe manner more readily. After a brief adjustment period, staff is now very comfortable with the new truck. This unit has been used to regularly maintain and clean our systems.

Corporate Goal – Reliability

B1 – Administration

- Assist with the implementation of SCADA Standards through regular coordination with AMaP and Operations staff.

B3, L9 – Operations

- The Maintenance Manager (Planning and Scheduling) is expected to help further refine the preventive maintenance program as the new Maintenance Management Computer system is implemented.
- Continue developing preventive maintenance practices that lead to or exceed a 75%/25% mix of preventive to corrective work order history.
- In 2017, and at the request of employees, the process for transporting samples was reviewed to ensure sample temperatures were adequately maintained. While reviewing options for additional coolers, etc. it was noted that the temperature requirement had been changed to a temperature lower than DEP required. This was corrected and sample transportation has met the DEP requirements since that time.
- Monitor pump system’s ability to minimize pump station downtime. The installation of generators at key pump stations along with bypass pumping connections helps to minimize service interruptions.

2019 Projects and Initiatives (continued)

- At the suggestion of employees, GPS units for several vehicles were purchased to be used in helping our staff navigate to our 70+ sites in Wastewater Systems.
- As part of the Maintenance Manager (Planning and Scheduling)'s responsibilities, our preventive maintenance program will be enhanced. This will include a review of the workload and assignment of work. Part of this review will include the review of current staff utilization and the need for additional staffing or resources. This will include a review of resources that might include remote access capability to obtain information on equipment and processes.
- In response to employee suggestions, we plan to purchase a 4 wheel drive vehicle for use by operations staff during inclement weather. Currently, on-call vehicles are 4 wheel drive and travel is generally minimized during peak inclement weather and bad driving conditions.
- Continue the condition assessment program of combining line cleaning and CCTV inspection of 10% of each community's buried infrastructure. We will have completed assessment of all of our buried sewer infrastructure by the end of 2018. The results will be evaluated and staff will develop a monitoring plan over the next two years.
- The Peaks Island Facility Controls were upgraded in 2013 to further enhance the operation of the plant and to allow for improved remote operation of the facility. In the spring of 2015, a new ultraviolet (UV) treatment system was installed at the Peak's Island facility. This has improved the disinfection system significantly.
- In 2016, an evaluation of the electrical distribution systems at each treatment plant was completed. This will result in a prioritized plan to address these aging and critical systems. The first projects from this assessment are currently under design.
- A comprehensive evaluation of the HVAC systems at each treatment plant began in 2016. This evaluation will identify aging systems in need of refurbishment and replacement. The project included a review of energy management in the recommendation of future projects. The first projects from this assessment are currently under design.

Corporate Goal – Affordability

B1 – Administration

- The EEWTF continues to participate in electricity Demand Response through ISO New England and receives roughly \$7,000 for its participation.
- Work with operations staff to manage overtime and off-shift coverage.

B3, L9 – Operations

- Manage departmental budgets with area supervisors that lead to cost savings measures, i.e. improved dewatered solids at the Westbrook/Gorham and East End WWTFs, station visits, chemical use, etc. Major budget items, including chemicals, power, biosolids, and others are monitored using the WIMS data management system to monitor and control operations and budgets.
- As requested by employees, a dumpster was installed at the Cape Elizabeth WWTF. This eliminates additional handling of material and transportation to other facilities for disposal.
- Continue to implement process control measures in the operation of wastewater treatment facilities. Operations Plans have been developed for each facility and an on-line computer based Operations Manuals continue to be updated to serve as guidance for the Operations Team.

2019 Projects and Initiatives (continued)

- Continue to support the use of the District’s asset management systems to efficiently manage equipment and systems. Operations staff and maintenance staff are working with the AMaP Department to complete our asset inventory and to develop preventive maintenance tasks for each facility.

Corporate Goal – Environment

B1 – Administration

- Continue to monitor existing performance and developing regulations.

B3, L9 – Operations

- Treatment and Systems teams work to ensure facilities operate in accordance with permit requirements.
- Through process control enhancements at the Peaks Island and Cape Elizabeth WWTF’s, these plants are managing effluent nitrogen levels. With the upgraded aeration system and the requirement for a “nutrient optimization approach” at the East End, efforts to manage and monitor effluent nitrogen began 2018. The configuration of these plants has made this possible with minor control upgrades and the process control enhancements. This will not be possible at the Westbrook/Gorham/Windham Regional WWTF without significant capital investment.
- Beginning in 2016, our goal is zero exceedances each year from all treatment plants. This goal will continue to direct our operational and compliance efforts into the future.

Corporate Goal – Employees and Work Environment

B1 – Administration

- Promote the District’s professional development program of a minimum 80 hours of training each year.
- In 2016, the Wastewater Study Group was created. This monthly session involves operators in hands-on learning designed to prepare operators for certification exams and their daily activities in our treatment plants and systems.
- Operators are encouraged to obtain required licenses and to continue with advanced licenses for wastewater treatment and collections.

B3, L9 – Operations

- Provide support to employees through annual performance reviews and regular support.
- Following injuries during the opening of manhole covers, and at the suggestion of employees, additional manhole cover opening magnets will be purchased. Once provided, staff will be expected to use the equipment to more safely lift and secure these heavy covers.
- Develop and maintain a safe working environment in each area of responsibility. Develop wastewater operators through the apprentice program; operators rotate through systems, treatment plants, the wastewater laboratory, and the Water Services Department.

Financial Overview

The Wastewater Services Group continues to operate with a goal of delivering effective services at reasonable costs to its member communities. Overall, the 2019 budget total includes an increase of \$131,571 to \$9,567,783. This is a 1.4% increase from the 2018 budget.

Salaries/Wages: Overall budgeted staffing levels increased by one (1) with the addition of an associate engineer position. Maintenance support for all treatment plants continues to come from the central treatment maintenance group at the East End treatment plant. Overall, this category has increased by \$148,954 or 6.6%.

Biosolids Disposal: The total budget for the hauling and management of biosolids generated from the treatment of wastewater has increased by \$170,264 in 2019 or 11.3%. The budgeted % Total Solids from the East End WWTF has been lowered slightly to 21.5%. The Westbrook/Gorham/Windham Regional WWTF is expected to increase significantly (21 % TS is anticipated) due to the new dewatering equipment. Overall, biosolids production is projected to increase to \$1,674,962.

Chemicals: Generally, chemicals are used at each of our facilities to treat and disinfect the treated wastewater before being discharged to the environment, to aid in dewatering biosolids, and for odor control. Overall, the total budget for chemicals has increased by \$89,303 or 15.5% from the 2018 budget. Operators and our plant control systems closely monitor chemical use at all facilities.

Contracted Services: Contracted services include the costs of the Falmouth and South Portland treatment plants to treat flows conveyed by PWD from Cumberland and Northern Cape Elizabeth. Contracted Services also includes a maintenance agreement related to the CSO monitoring services. The budget amount decreased by \$98,296 or 7.5% from the 2018 budget.

Heat/Fuel Oil: The East End treatment plant converted from fuel oil to natural gas in 2012. Natural gas use is continually monitored and recorded by the SCADA control system. For 2018, the budget has increased 6.4% or \$9,824. The total budget is \$164,393.

Purchased Power: The power budget has been decreased by \$122,216 or 8.4% in the 2019 budget. Included in the budget projections for 2018, we have estimated that approximately \$17,000 of electricity is expected to be used at the East End as part of our nitrogen reduction efforts in 2018.

Transportation: The transportation budget has decreased by \$7,225 from the 2018 budget. This 2.8% decrease results in a budget amount of \$250,704.

Wastewater Services: Total**Financial Summary:**

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
B1 - Wastewater Administration	\$197,237	\$128,708	\$294,067	\$377,948	\$83,881	28.5%
B3 - Wastewater Treatment	6,567,071	3,654,373	6,373,881	6,543,258	\$169,377	2.7%
L9 - Wastewater Systems	2,494,165	1,268,353	2,714,224	2,646,577	-\$67,647	-2.5%
Grand Total	9,258,473	5,051,434	9,382,172	9,567,783	185,611	2.0%
Expense Type:						
Salaries & Wages	\$2,186,967	\$1,128,451	\$2,264,303	\$2,413,257	\$148,954	6.6%
Employee Benefits	1,098,134	550,929	1,148,134	1,149,362	\$1,228	0.1%
Biosolids Disposal	1,862,526	956,013	1,504,698	1,674,962	\$170,264	11.3%
Chemicals	626,160	361,302	577,057	666,360	\$89,303	15.5%
Contracted Services	1,067,629	668,493	1,305,534	1,207,238	-\$98,296	-7.5%
Heat/Fuel Oil	134,418	104,359	154,569	164,393	\$9,824	6.4%
Insurance	44,657	21,851	49,531	38,771	-\$10,760	-21.7%
Materials & Supplies	377,277	161,397	414,768	434,036	\$19,268	4.6%
Other Expense	56,151	23,222	76,730	78,210	\$1,480	1.9%
Purchased Power	1,370,963	854,715	1,459,113	1,336,897	-\$122,216	-8.4%
Tele/Other Utilities	161,517	89,434	169,806	153,593	-\$16,213	-9.5%
Transportation	272,074	131,268	257,929	250,704	-\$7,225	-2.8%
Grand Total	9,258,473	5,051,434	9,382,172	9,567,783	185,611	2.0%
Headcount:						
Full Time	39	38	38	39	1	2.6%
Part Time	0	0	0	0	0	n/a
Total	39	38	38	39	1	2.6%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$287,659	\$165,346	\$328,982	\$399,599	\$70,617	21.5%
660121 - WAGES/REGULAR UNION	1,643,704	841,296	1,759,618	1,814,726	55,108	3.1%
660122 - WAGES/OVERTIME UNION	128,955	63,208	122,399	140,469	18,070	14.8%
660123 - WAGES/DOUBLETIME UNION	15,602	6,657	13,764	18,019	4,255	30.9%
660124 - WAGES/STANDBY TIME UNION	34,781	17,810	31,140	32,044	904	2.9%
660131 - WAGES - REGULAR - TEMPS	12,992	2,128	8,400	8,400	-	0.0%
66014 - VACATION ACCRUAL	7,749	1,990	-	-	-	n/a
66015 - SICKTIME ACCRUAL	55,525	30,016	-	-	-	n/a
Salaries & Wages Total	2,186,967	1,128,451	2,264,303	2,413,257	148,954	6.6%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	163,489	87,253	173,218	184,621	11,403	6.6%
660405 - SAFETY/WHY PROGRAM ITEMS	7,301	2,284	8,450	6,200	(2,250)	-26.6%
660411 - MEALS ALLOWANCE	80	20	450	450	-	0.0%
660413 - PWD TRAINING PROGRAM	-	45	-	-	-	n/a
6604151 - FIELD UNIFORMS	-	-	90	90	-	0.0%
660418 - STIPENDS	4,100	4,000	4,600	4,600	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	4,916	211	5,790	4,343	(1,447)	-25.0%
660491 - EE BENEFITS-REG/SAL	918,248	457,116	955,536	949,058	(6,478)	-0.7%
Employee Benefits Total	1,098,134	550,929	1,148,134	1,149,362	1,228	0.1%
Biosolids Disposal						
663571 - BIOSOLIDS DISPOSAL	1,862,526	956,013	1,504,698	1,674,962	170,264	11.3%
Biosolids Disposal Total	1,862,526	956,013	1,504,698	1,674,962	170,264	11.3%
Chemicals						
661811 - SODIUM BICARBONATE	16,758	10,001	18,725	14,620	(4,105)	-21.9%
661812 - SODIUM BISULFITE	134,717	73,960	156,824	172,100	15,276	9.7%
6618121 - SODIUM BISULFITE-ACCRUAL	2,340	(283)	-	-	-	n/a
66182 - CAUSTIC SODA	2,312	-	7,070	5,270	(1,800)	-25.5%
66185 - SODIUM HYPOCHLORITE	228,964	124,356	210,205	277,100	66,895	31.8%
661851 - SODIUM HYPO - ACCRUAL	(5,305)	4,502	-	-	-	n/a
66189 - POLYMER	235,075	149,412	182,233	195,270	13,037	7.2%
661891 - POLYMER - ACCRUAL	10,301	-	-	-	-	n/a
661899 - OTHER CHEMICALS	-	-	2,000	2,000	-	0.0%
661821 - CAUSTIC SODA - ACCRUAL	998	(646)	-	-	-	n/a
Chemicals Total	626,160	361,302	577,057	666,360	89,303	15.5%
Contracted Services						
6631 - ENGINEERING SERVICES	36,992	15,440	127,500	82,500	(45,000)	-35.3%
663521 - TRAFFIC CONTROL	535	-	550	550	-	0.0%
663525 - CONTRACTOR CONSTRUCTION	15,406	-	25,500	25,500	-	0.0%
663527 - EMERGENCY RESPONSE- FEMA	25,233	-	-	-	-	n/a
66353 - REPAIR SERVICES	3,709	4,250	13,000	13,000	-	0.0%
66354 - MAINTENANCE SERVICES	243,828	154,660	221,812	232,196	10,384	4.7%
663543 - CSO FLOW MONITORING	96,985	37,833	191,395	156,375	(35,020)	-18.3%
663544 - MAINT SERVICES - CCTV	29,250	15,563	81,250	65,350	(15,900)	-19.6%
663546 - MAINTENANCE - SNOW REMOVL	60,507	33,169	56,795	52,300	(4,495)	-7.9%
663547 - WASTE SLUDGE TRANSPORT	33,220	14,097	31,560	32,000	440	1.4%
663551 - LAB ANALYSIS	-	324	1,600	1,600	-	0.0%
663561 - COMPUTER LICENSES	35,229	34,882	35,324	35,324	-	0.0%
663562 - COMPUTER MAINTAINENCE	-	-	150	-	(150)	-100.0%
663572 - GRIT & SCREENS DISPOSAL	49,793	20,875	74,450	74,450	-	0.0%
663573 - GREASE DISPOSAL	25,479	12,994	34,200	30,200	(4,000)	-11.7%
663574 - DISPOSAL SERVICES	13,505	3,801	7,170	6,170	(1,000)	-13.9%
663585 - TREATMENT CONTRACT SERVIC	390,127	318,210	396,860	395,483	(1,377)	-0.3%
6635851 - WW DEWATERING SERVICES	8,116	2,537	5,438	5,100	(338)	-6.2%
6635852 - WW DEWATERING SRVS CRED	(8,116)	(2,537)	(3,400)	(5,500)	(2,100)	61.8%
663587 - COURIER SERVICES	4,362	2,196	4,380	4,640	260	5.9%
663599 - MISC OTHER SERVICES	3,469	199	-	-	-	n/a
Contracted Services Total	1,067,629	668,493	1,305,534	1,207,238	(98,296)	-7.5%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Heat/Fuel Oil						
66161 - HEATING OIL	\$24,306	\$24,492	\$22,967	\$27,884	\$4,917	21.4%
661621 - PIPELINE DELIVERED PROPAN	77,521	53,991	91,747	106,196	14,449	15.7%
661622 - CONTAINER DELIVERED	32,043	25,635	39,455	29,763	(9,692)	-24.6%
66166 - UNLEADED GAS	548	241	400	550	150	37.5%
Heat/Fuel Oil Total	134,418	104,359	154,569	164,393	9,824	6.4%
Insurance						
66599 - PROPERTY & BOILER INSUR	44,657	21,851	49,531	38,771	(10,760)	-21.7%
Insurance Total	44,657	21,851	49,531	38,771	(10,760)	-21.7%
Materials & Supplies						
6619 - ASSET PURCHASES	48,973	22,006	103,500	102,000	(1,500)	-1.4%
66202 - TOOLS	5,489	1,643	7,500	7,000	(500)	-6.7%
66203 - VENDOR PURCHASED SUPPLIES	221,295	68,955	210,650	217,288	6,638	3.2%
662041 - MATERIALS INVENTORY	44,267	37,404	34,775	46,925	12,150	34.9%
662042 - SUPPLIES INVENTORY	33,927	17,207	26,775	28,635	1,860	6.9%
662043 - TOOL INVENTORY	12,027	11,731	13,275	13,575	300	2.3%
66204302 - INVENTORY - PAPER	-	90	-	-	-	n/a
66204303 - INVENTORY - COMPUTER EQUIP	1,293	913	3,800	6,088	2,288	60.2%
662046 - HYDRANT INVENTORY	429	-	-	-	-	n/a
662047 - GARAGE INVENTORY	2,203	895	2,075	2,175	100	4.8%
66205 - CONSUMABLE SUPPLIES	84	255	918	650	(268)	-29.2%
66206 - COMPUTER RELATED EQUIP	7,290	298	11,500	9,700	(1,800)	-15.7%
Materials & Supplies Total	377,277	161,397	414,768	434,036	19,268	4.6%
Other Expense						
6642 - EQUIPMENT RENT	296	389	500	500	-	0.0%
66609 - OTHER ADVERTISING	483	199	375	350	(25)	-6.7%
667511 - TRAINING & CONFERNCES	1,048	-	-	-	-	n/a
6675111 - INSTA TE TRAINING/CONF	14,257	4,920	18,750	18,750	-	0.0%
6675112 - OUT OF STA TE TRAINING/CON	9,424	2,155	11,250	8,750	(2,500)	-22.2%
6675121 - IN STA TE CONFERENCES	108	-	-	-	-	n/a
667513 - DUES	2,834	12,049	12,800	12,800	-	0.0%
667514 - PROFESSIONAL LICENSES	2,890	975	2,380	2,480	100	4.2%
667515 - PERIODICAL SUBSCRIPTIONS	381	520	250	250	-	0.0%
667516 - PERMITS	25,668	6,368	26,500	26,500	-	0.0%
667517 - PLANT OPER LICENSE FEES	-	-	75	-	(75)	-100.0%
667518 - REGULATORY REQUIRED FEES	11,314	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	59	18	75	75	-	0.0%
667522 - POSTAGE - INTERNAL	115	20	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	274	384	350	500	150	42.9%
667531 - PRINTING COSTS	50	53	-	-	-	n/a
667533 - FORMS STOCK	-	-	400	400	-	0.0%
667552 - SAFETY TRAINING	-	-	1,500	1,500	-	0.0%
667555 - SAFETY EXPENSES	6,252	2,674	7,825	12,825	5,000	63.9%
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667592 - FOOD SUPPLIES	1,168	1,430	500	500	-	0.0%
667599 - OTHER MISCELLANEOUS	430	268	-	-	-	n/a
6676 - EXPENSE OFFSET	(23,400)	(11,700)	(23,400)	(24,570)	(1,170)	5.0%
Other Expense Total	56,151	23,222	76,730	78,210	1,480	1.9%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Purchased Power						
66151 - POWER - LARGE ENERGY	\$424,264	\$251,344	\$428,178	\$347,986	(\$80,192)	-18.7%
66152 - POWER - LARGE T&D	346,094	206,713	365,635	346,798	(18,837)	-5.2%
66153 - POWER - MEDIUM ENERGY	237,355	165,164	241,231	238,458	(2,773)	-1.1%
66154 - POWER - MEDIUM T&D	205,171	82,353	166,901	142,490	(24,411)	-14.6%
66155 - POWER - SMALL ENERGY	37,048	27,874	37,641	34,132	(3,509)	-9.3%
66156 - POWER - SMALL T&D	53,210	28,045	44,165	43,173	(992)	-2.2%
66157 - POWER - OTHER CHARGES	70,011	46,136	81,212	69,425	(11,787)	-14.5%
66158 - LOAD RESPONSE	(2,190)	(2,714)	(20,550)	(6,300)	14,250	-69.3%
66159 - POWER - CAPACITY	-	49,800	114,700	120,735	6,035	5.3%
Purchased Power Total	1,370,963	854,715	1,459,113	1,336,897	(122,216)	-8.4%
Tele/Other Utilities						
66101 - WATER	86,657	44,239	125,855	75,732	(50,123)	-39.8%
66102 - WASTEWATER	35,928	24,362	-	37,202	37,202	n/a
66103 - STORMWATER CHARGES	17,136	10,061	17,117	18,217	1,100	6.4%
66111 - TELEPHONE LINES	413	-	660	-	(660)	-100.0%
66112 - DATA LINES	14,282	8,453	16,663	16,120	(543)	-3.3%
66113 - CELLULAR PHONES	6,682	2,319	9,171	6,024	(3,147)	-34.3%
66114 - PAGERS	419	-	340	298	(42)	-12.4%
Tele/Other Utilities Total	161,517	89,434	169,806	153,593	(16,213)	-9.5%
Transportation						
66501 - TRANSPORTATION - INTERNAL	143,505	71,305	163,495	163,271	(224)	-0.1%
665019 - TRANS INTERNAL INACTIVE	112,384	52,520	78,140	71,139	(7,001)	-9.0%
66502 - TRANSPORTATION - EXTERNAL	14,149	6,789	14,800	14,800	-	0.0%
66503 - MILEAGE REIMBURSEMENT	2,025	654	1,494	1,494	-	0.0%
66504 - MTA TRANS-PASS TOLL FEES	11	-	-	-	-	n/a
Transportation Total	272,074	131,268	257,929	250,704	(7,225)	-2.8%
Grand Total	9,258,473	5,051,434	9,382,172	9,567,783	185,611	2.0%

Wastewater Services: Wastewater Administration (B1)

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$120,877	\$74,530	\$179,291	\$238,939	\$59,648	33.3%
Employee Benefits	67,482	39,548	97,202	121,960	24,758	25.5%
Contracted Services	125	0	650	500	-150	-23.1%
Materials & Supplies	849	-99	150	150	0	0.0%
Other Expense	6,178	13,909	15,105	15,030	-75	-0.5%
Tele/Other Utilities	1,285	404	1,500	1,200	-300	-20.0%
Transportation	441	416	169	169	0	0.0%
Grand Total	197,237	128,708	294,067	377,948	83,881	28.5%
Programs:						
98 - Training	18,077	4,767	11,079	14,333	3,254	29.4%
99 - Administration	179,160	123,941	282,988	363,615	80,627	28.5%
Grand Total	197,237	128,708	294,067	377,948	83,881	28.5%
Funds:						
10 - General	463	1	0	0	0	n/a
50 - Wastewater General	196,774	128,707	294,067	377,948	83,881	28.5%
Grand Total	197,237	128,708	294,067	377,948	83,881	28.5%
Headcount:						
Full-Time	2	2	2	3	1	50.0%
Part-Time	0	0	0	0	0	n/a
Total	2	2	2	3	1	50.0%

Wastewater Services: Wastewater Treatment Plants (B3)

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$1,348,256	\$706,749	\$1,331,019	\$1,380,616	\$49,597	3.7%
Employee Benefits	663,118	332,054	664,926	645,428	-19,498	-2.9%
Biosolids Disposal	1,862,526	956,013	1,504,698	1,674,962	170,264	11.3%
Chemicals	626,160	361,302	577,057	666,360	89,303	15.5%
Contracted Services	554,292	453,588	641,120	605,158	-35,962	-5.6%
Heat/Fuel Oil	118,332	97,081	138,093	146,284	8,191	5.9%
Insurance	23,831	11,439	27,716	22,664	-5,052	-18.2%
Materials & Supplies	261,832	81,520	285,718	298,848	13,130	4.6%
Other Expense	33,189	2,600	44,425	40,930	-3,495	-7.9%
Purchased Power	890,640	552,096	974,911	899,140	-75,771	-7.8%
Tele/Other Utilities	108,848	62,269	111,789	92,522	-19,267	-17.2%
Transportation	76,047	37,662	72,409	70,346	-2,063	-2.8%
Grand Total	6,567,071	3,654,373	6,373,881	6,543,258	169,377	2.7%
Programs:						
44 - WW Pumping	54,033	9,788	6,826	27,763	20,937	306.7%
45 - WW Treatment	6,015,067	3,357,459	5,944,984	6,101,314	156,330	2.6%
98 - Training	69,431	32,754	106,002	101,781	-4,221	-4.0%
99 - Administration	428,540	254,372	316,069	312,400	-3,669	-1.2%
Grand Total	6,567,071	3,654,373	6,373,881	6,543,258	169,377	2.7%
Funds:						
50 - Wastewater General	497,971	287,126	422,071	414,181	-7,890	-1.9%
51 - WW Cape Elizabeth	408,112	218,464	427,412	430,098	2,686	0.6%
53 - WW Cumberland	2,954	358	0	1,678	1,678	n/a
57 - WW Portland	4,474,540	2,520,478	4,439,791	4,588,321	148,530	3.3%
61 - WW Gorham	9,632	97	0	4,195	4,195	n/a
62 - WW Westbrook	5,712	754	3,413	4,694	1,281	37.5%
64 - WW Joint Westbrook	998,205	542,080	890,092	894,083	3,991	0.4%
65 - WW Joint LF	167	327	0	0	0	n/a
66 - WW Peaks Island	169,778	84,689	191,102	206,008	14,906	7.8%
Grand Total	6,567,071	3,654,373	6,373,881	6,543,258	169,377	2.7%
Headcount:						
Full-Time	25	23	23	23	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	25	23	23	23	0	0.0%

Wastewater Services: Wastewater Systems (L9)**Financial Summary:**

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$717,834	\$347,172	\$753,993	\$793,702	\$39,709	5.3%
Employee Benefits	367,534	179,327	386,006	381,974	-4,032	-1.0%
Contracted Services	513,212	214,905	663,764	601,580	-62,184	-9.4%
Heat/Fuel Oil	16,086	7,278	16,476	18,109	1,633	9.9%
Insurance	20,826	10,412	21,815	16,107	-5,708	-26.2%
Materials & Supplies	114,596	79,976	128,900	135,038	6,138	4.8%
Other Expense	16,784	6,713	17,200	22,250	5,050	29.4%
Purchased Power	480,323	302,619	484,202	437,757	-46,445	-9.6%
Tele/Other Utilities	51,384	26,761	56,517	59,871	3,354	5.9%
Transportation	195,586	93,190	185,351	180,189	-5,162	-2.8%
Grand Total	2,494,165	1,268,353	2,714,224	2,646,577	-67,647	-2.5%
Programs:						
30 - Maintenance	100	24	0	0	0	n/a
39 - Compost Site	1,066	410	1,500	0	-1,500	-100.0%
41 - Pretreatment	0	279	17,396	25,173	7,777	44.7%
44 - WW Pumping	1,684,215	907,061	1,983,750	1,872,073	-111,677	-5.6%
45 - WW Treatment	200,826	99,888	249,777	237,727	-12,050	-4.8%
90 - Vehicles	26,434	14,599	28,650	25,991	-2,659	-9.3%
95 - Douglass Street	13,430	11,006	17,352	15,727	-1,625	-9.4%
98 - Training	79,578	20,361	60,539	63,746	3,207	5.3%
99 - Administration	488,516	214,725	355,260	406,140	50,880	14.3%
Grand Total	2,494,165	1,268,353	2,714,224	2,646,577	-67,647	-2.5%
Funds:						
10 - General	20,210	14,655	25,513	22,424	-3,089	-12.1%
20 - Water General	7,247	1,594	6,139	7,864	1,725	28.1%
50 - Wastewater General	622,338	268,851	474,964	532,356	57,392	12.1%
51 - WW Cape Elizabeth	304,521	159,986	322,915	310,378	-12,537	-3.9%
53 - WW Cumberland	325,923	190,115	364,695	350,275	-14,420	-4.0%
55 - WW Windham LF	32,618	19,017	34,082	41,249	7,167	21.0%
57 - WW Portland	689,944	347,227	885,303	793,474	-91,829	-10.4%
61 - WW Gorham	170,401	78,272	156,662	165,185	8,523	5.4%
62 - WW Westbrook	109,418	68,551	164,555	152,461	-12,094	-7.3%
64 - WW Joint Westbrook	106,235	59,399	136,196	122,989	-13,207	-9.7%
65 - WW Joint LF	41,664	36,985	55,534	66,170	10,636	19.2%
66 - WW Peaks Island	63,646	23,701	87,666	81,752	-5,914	-6.7%
Grand Total	2,494,165	1,268,353	2,714,224	2,646,577	-67,647	-2.5%
Headcount:						
Full-Time	13	13	13	13	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	13	13	13	13	0	0.0%

Environmental Services



Sebago Lake Real-time Monitoring Buoy

2018 marks the first year of full deployment of the real-time water quality monitoring buoy on Sebago Lake. The buoy represents a collaboration between PWD and St. Joseph's College and was funded in part by a University of Maine Sustainability grant. The buoy hosts a string of water quality monitoring sensors which provide ecological lake data from multiple depths in the lake. Data is continuously uploaded to PWD website for the public to view. Ecological and physical data provided by the buoy also serves to supplement our existing lake and operational water testing programs.

Environmental Services – Purpose Statement

Environmental Services is organized to monitor and protect water quality from watershed to tap and wastewater from collection to discharge.

Core Services

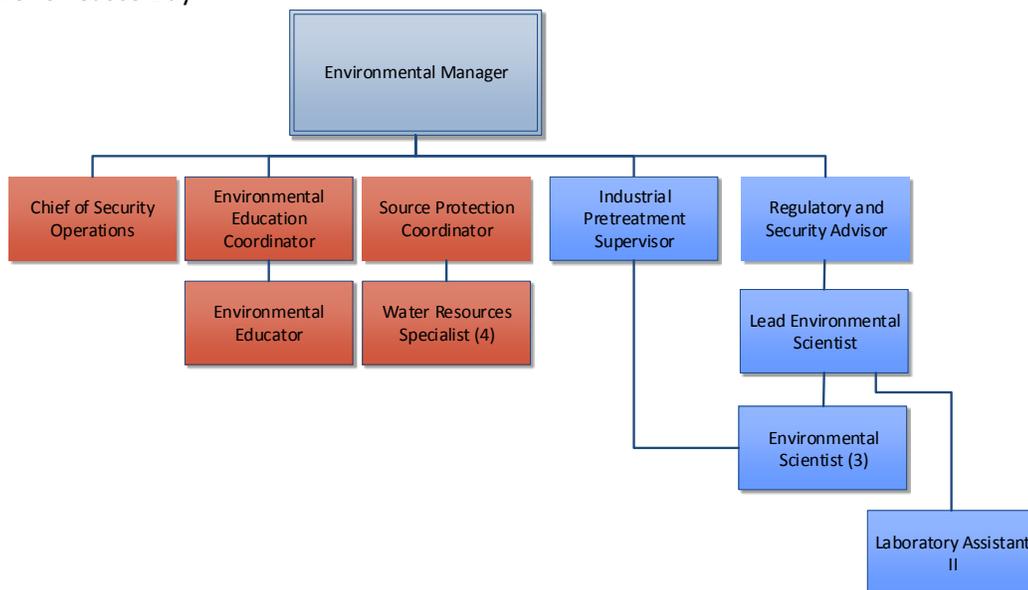
Environmental Services has five core areas of focus:

Water Resources Group (A5; red in the organization chart)

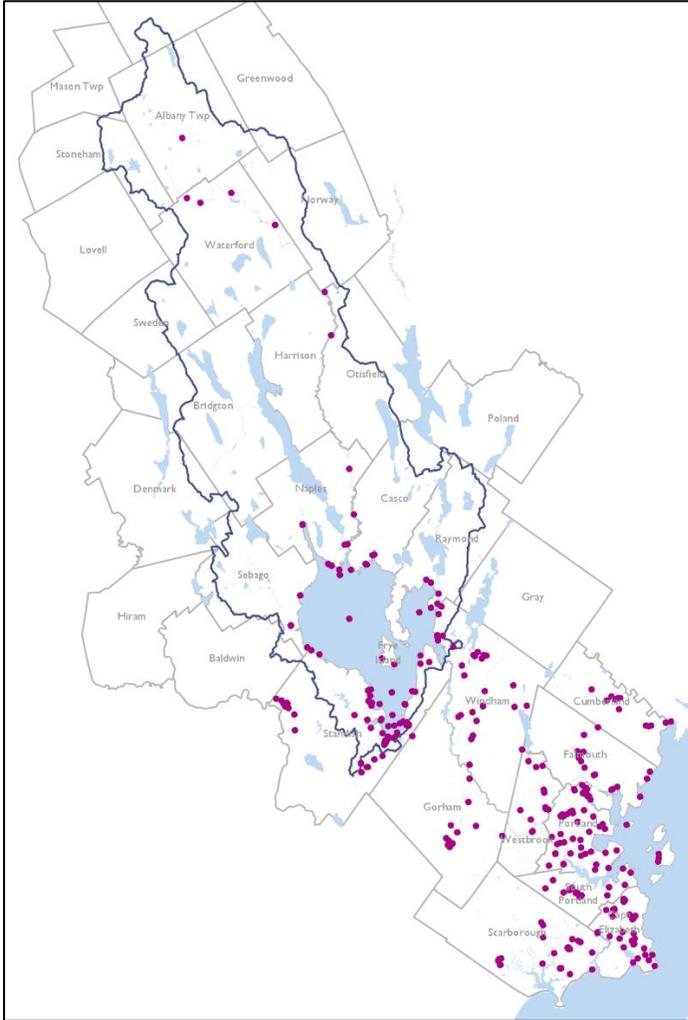
1. The Source Protection section monitors Sebago Lake and the watershed, inspects development projects in the watershed to minimize their impact, works with watershed partners to install pollution prevention and mitigation projects, and works with watershed land trusts to help landowners seeking to conserve their land in perpetuity.
2. The Environmental Education section communicates water quality and environmental principles to children and adults throughout the watershed and service area with the goal of encouraging public stewardship of our water resources.
3. The Security section provides for the daily protection of Sebago Lake by patrolling Lower Bay and enforcing the rules of access to the Sebago Lake Land Reserve and also coordinates the District’s Preparedness and Emergency Response activities.

Laboratory Services Group (L6; blue in organization chart)

4. The Environmental Laboratories ensure the proper collection, analysis and reporting of water, wastewater and biosolids samples both for compliance purposes and to support the proper functioning of water and wastewater operations. The group ensures the proper maintenance and calibration of laboratory sampling and monitoring equipment at all five of the District’s laboratories.
5. The Industrial Pretreatment Program (IPT) staff are responsible for permitting, monitoring and initiating enforcement actions for sewer customers who discharge significant quantities of non-domestic wastewater to the sewer collection system. The IPT programs are designed to ensure discharges from industrial users do not impact District operations or pollute the Presumpscot River or Casco Bay.



Key Statistics



WQDI-generated map illustrating all of the District’s water quality sampling locations from watershed to tap.

Watershed Monitoring Programs:	14
Annual Watershed Inspections:	400
Individuals served by Education and Outreach programs:	More than 6,200 annually
Annual Land Reserve Day-use Visits:	17,000
Land Reserve Violations Issued:	240
Annual Lower Bay Patrol Hours:	2000
Annual Lower Bay Violators Cited:	90
Certified Laboratory Analytes:	72
Average Annual Customer Water Quality Inquiries:	270
IPT Industries Regulated:	41

Performance Benchmarks

Annual Program Metrics – Environmental Services	2017 Actual	2018 Projected
% Verified - Water Quality Inquiries	26	24
Shore Land Zone Inspections	375	375
Watershed Properties Improved or Recommendations Made	25	22
Lower Bay Water Violations	94	34
Land Reserve Visitors	27,500	30,000
Land Reserve Violations	266	400
Visitors per Land Reserve Violation	103	75
Certified Laboratory Analytes	72	72
Students Served by WaterWays In-School Program	923	1,050
Outreach Events and Presentations Organized by PWD	30	20

Past Accomplishments:

Source Protection since 2000:

- Completed more than 9,381 watershed inspections.
- Provided Lakescaping Reports to 557 watershed properties.
- Financially supported water quality-related improvements to 231 properties.
- Awarded more than \$212,000 in Lake Stewards Grants which, when combined with matching funds, resulted in more than \$785,000 in improvements to the shoreland zone of Sebago Lake
- Maintained 14 ongoing lake and watershed monitoring programs.
- Reviewed plans for more than 160 large developments and, when necessary, provided planning board feedback in an effort to minimize the impact of these projects.
- Responded to 466 complaints, 165 of which prevented or mitigated environmental violations and/or pollution.
- Contributed more than \$550,000 to assist in the conservation by area land trusts of 4400 acres of land in the watershed.

Education and Outreach since 2000:

- Produced 28 Watershed News newsletters and 5 State of the Lake reports.
- Distributed more than 57,000 Sebago Lake maps and 13,700 “Images of Sebago Lake” calendars to watershed residents and visitors.
- Distributed more than 54,300 other types of brochures and fact sheets to watershed residents and visitors.
- Posted over 330 lake protection related messages on Facebook to an audience that began at 490 in 2013 and has increased to over 2,100 followers.
- Sent 35 mass emails about source protection events, publications, and information to a recipient list that started in 2015 with 1,100 email addresses and has increased to over 3,700.
- Taught source protection principles to approximately 17,000 middle school-aged students through our HydroLogics and WaterWays in-school education programs.
- Provided environmental education to approximately 32,000 additional children, teachers, and adults through tours, events, workshops, field trips, lessons, and programs.
- Received the Maine Environmental Education Association’s “Excellence in Environmental Education” award.

Water Resources Security since 2005:

- Patrolled Lower Bay by boat and attended the Standish Boat Launch for approximately 22,100 hours combined.
- Patrolled the Sebago Lake Land Reserve by using an all-terrain vehicle (Extended Security patrol) for approximately 1,290 hours combined.
- Issued more than 1,700 warnings for violation of water contact regulations
- Recorded 163,809 day-use visits to the Sebago Lake Land Reserve.
- Issued more than 2,870 warnings for violation of Land Reserve Rules.
- Suspended privileges to visit Land Reserve of 42 individuals for aggravated or multiple Land Reserve Rule violations.

Past Accomplishments (continued)

Environmental Laboratories since 2000:

- Combined the water and wastewater laboratories into one functioning unit with shared resources, staff, and expertise.
- Consolidated to East End laboratory the daily wastewater analyses for the four wastewater treatment facilities in order to improve consistency and reduce duplication of quality control requirements.
- Modified laboratory procedures as needed to meet evolving EPA and state standards to maintain certification for water and wastewater analyses.
- Consistently analyzed performance testing samples properly to maintain certification.
- Managed the customer water quality inquiry process to ensure prompt and consistent response by appropriate staff; responded to approximately 250 calls per year.
- Contributed to the protection of public health by participating in the Maine healthy beaches program.
- Supported water and wastewater operations by providing accurate and timely water and wastewater quality data.
- Provided training in water quality and environmental regulation to District staff in all departments.

Industrial Pretreatment since 2010:

- Accomplished the adoption of local limits on Portland and Westbrook industrial dischargers each time facility permits were renewed.
- Created and implemented an Industrial Waste Survey of the Westbrook-Gorham-Windham system to identify IPT industries.
- Agreed to assume all aspects of the Portland IPT program from the City of Portland.
- Received 2015 Regional EPA Industrial Pretreatment Program Excellence Award.

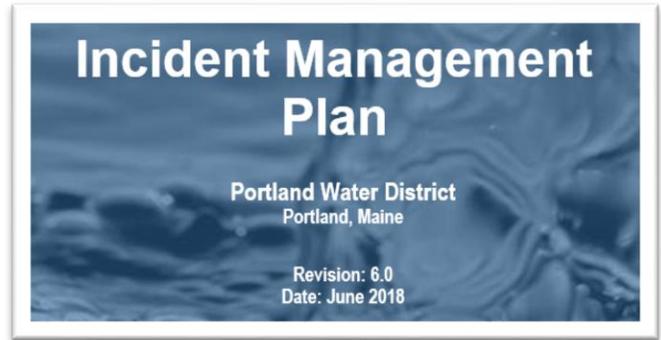
Budget Year 2018 Highlights:

- Deployed a real-time lake monitoring buoy in the Lower Bay of Sebago Lake to provide water quality data from multiple depths and feed the data continuously to the PWD website.
- Continued development of a water quality data interface (WQDI) that utilizes and integrates the District's existing databases to display water quality data from the watershed to the distribution system and developed the ability to generate informative fact sheets for more than 300 sample sites.
- Worked with Sebago Clean Waters partners to secure a Healthy Watershed Consortium Grant for \$350,000 to hire a consulting project manager charged with developing a land conservation fund to help finance land conservation efforts in the Sebago Lake watershed.
- Published a paper, entitled More Trees, Less Treatment: A Water Utility-Land Trust Partnership to Conserve Forests, detailing the District's Watershed Land Conservation Program, in the New England Water Works Association Journal
- Received the Espy Land Heritage Award by the Maine Land Trust Network for land conservation work in the Sebago Lake watershed.
- Collaborated with St. Joseph's College to plan a 2019 State of Sebago Lake Symposium to highlight the new monitoring buoy and perform lake protection outreach to Sebago Lake constituents.
- Completed erosion control projects funded by a \$59,327 federal grant to address non-point source pollution to Sebago Lake as part of the Sebago Lake Phase III Implementation project.
- Provided technical assistance and beach monitoring training to the Town of Standish for the newly opened Rich Memorial Beach. Collaborated with town staff to complete an annual beach report for the town council and the board of trustees.
- Monitored the re-construction of Route 35 along the southern shore of Lower Bay to help ensure the lake was not impacted during construction and that the project was completed in accordance with the plan.
- Revised the readability of the Sebago Lake Protection section of the District's website.
- Initiated updates to the Sebago Lake Treatment Facility's Integrated Contingency Plan (ICP).
- Represented the District on the Cumberland District Public Health Council.
- Completed Lead and Copper Rule monitoring and reporting for the Steep Falls system.
- Updated the PWD Incident Management Plan (IMP) and made it easily accessible by all employees on the District Intranet.
- Completed algal toxin (microcystin) monitoring for the Greater Portland system per the EPA UCMR4 regulation.
- Provided laboratory support to the Maine Healthy Beach Program by testing East End beach for bacteria.
- Maintained good standing with DHHS lab certification program following audits.
- Created and provided lessons about effective best management practices at three recreation summer camp programs in the service area and watershed.
- Received the Maine Environmental Education Association's "Excellence in Environmental Education" award.
- Coordinated and aired a video series called "Protecting a Trillion Gallons of Water" that features five different source protection programs.
- Hosted an environmental education intern who provided support to our education and outreach programs.
- Organized and participated in a hurricane preparation exercise with the all operations groups.
- Completed a floating boardwalk which gives the public a way to walk through a seasonally flooded wetland.
- Upgraded the lake security patrol boat electronics with a new GPS chart plotter.

2018 Highlights



Provided source protection lessons at three summer recreation camps in the service area and watershed



Completed annual update to the PWD Incident Management Plan



Created “Protecting a Trillion Gallon of Water” video series that highlights five source protection programs



Completed Lead and Copper Rule monitoring in the Steep Falls water system



Completed algal toxin (microcystin) monitoring on Greater Portland water system per EPA UCMR4 drinking water regulation



Worked with the Facilities Department to complete the rebuild of the wetland boardwalk behind the Lake Office

2018 Highlights (continued)



Received the Espy Land Heritage Award for land conservation work in the Sebago Lake watershed

WQDI Sample Site Fact Sheet

Location: TRIB-1952 Brook

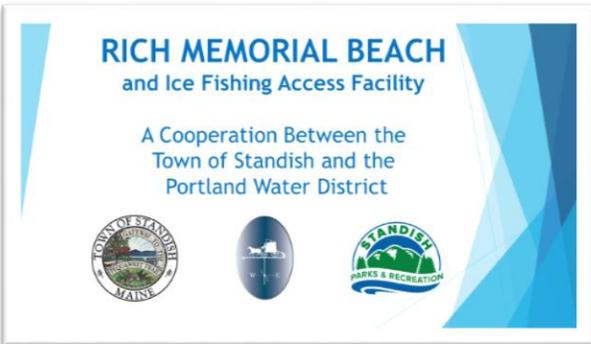
Program: Tributary Run (SOUT8)

Location: X,Y Coordinates

Variable	Unit	Frequency	Method	Parameter	Year
TRIB-1952 Brook Temperature	°F	Continuous	YSI 600	Temperature	2017
TRIB-1952 Brook Turbidity	NTU	Continuous	YSI 600	Turbidity	2017
TRIB-1952 Brook Dissolved Oxygen	%	Continuous	YSI 600	Dissolved Oxygen	2017
TRIB-1952 Brook pH	pH	Continuous	YSI 600	pH	2017
TRIB-1952 Brook Conductivity	µmhos/cm	Continuous	YSI 600	Conductivity	2017
TRIB-1952 Brook Total Dissolved Solids	mg/L	Continuous	YSI 600	Total Dissolved Solids	2017
TRIB-1952 Brook Total Suspended Solids	mg/L	Continuous	YSI 600	Total Suspended Solids	2017
TRIB-1952 Brook Total Phosphorus	µg/L	Continuous	YSI 600	Total Phosphorus	2017
TRIB-1952 Brook Total Nitrogen	µg/L	Continuous	YSI 600	Total Nitrogen	2017
TRIB-1952 Brook Ammonia Nitrogen	µg/L	Continuous	YSI 600	Ammonia Nitrogen	2017
TRIB-1952 Brook Nitrate Nitrogen	µg/L	Continuous	YSI 600	Nitrate Nitrogen	2017
TRIB-1952 Brook Nitrite Nitrogen	µg/L	Continuous	YSI 600	Nitrite Nitrogen	2017
TRIB-1952 Brook Orthophosphate	µg/L	Continuous	YSI 600	Orthophosphate	2017
TRIB-1952 Brook Chlorophyll a	µg/L	Continuous	YSI 600	Chlorophyll a	2017
TRIB-1952 Brook Chlorophyll b	µg/L	Continuous	YSI 600	Chlorophyll b	2017
TRIB-1952 Brook Chlorophyll c	µg/L	Continuous	YSI 600	Chlorophyll c	2017
TRIB-1952 Brook Chlorophyll a+b+c	µg/L	Continuous	YSI 600	Chlorophyll a+b+c	2017
TRIB-1952 Brook Secchi Depth	ft	Continuous	YSI 600	Secchi Depth	2017
TRIB-1952 Brook Water Level	ft	Continuous	YSI 600	Water Level	2017
TRIB-1952 Brook Wind Speed	mph	Continuous	YSI 600	Wind Speed	2017
TRIB-1952 Brook Wind Direction	°	Continuous	YSI 600	Wind Direction	2017
TRIB-1952 Brook Rainfall	in	Continuous	YSI 600	Rainfall	2017
TRIB-1952 Brook Solar Radiation	W/m²	Continuous	YSI 600	Solar Radiation	2017
TRIB-1952 Brook Air Temperature	°F	Continuous	YSI 600	Air Temperature	2017
TRIB-1952 Brook Relative Humidity	%	Continuous	YSI 600	Relative Humidity	2017
TRIB-1952 Brook Barometric Pressure	inHg	Continuous	YSI 600	Barometric Pressure	2017
TRIB-1952 Brook Water Temperature	°F	Continuous	YSI 600	Water Temperature	2017

Frequency: For this variable Hach WMS will say One-Time

Continued development of the water quality data interface (WQDI) that will be used to display water quality data from the watershed to the distribution system



Collaboratively developed and presented an annual beach report to assess and review operations of the Rich Memorial Beach in Standish



Installed a new GPS chartplotter in the Sebago Lake Patrol Boat, M-7



Deployed a real-time lake monitoring buoy in the Lower Bay of Sebago Lake



Received the 2017 Maine Environmental Education Association Award for outstanding educational program

2019 Projects and Initiatives

Source Protection

- Co-host a State of Sebago Lake Symposium with St. Joseph's college that highlights the new real-time monitoring buoy and promotes lake protection to Sebago Lake constituents.
- With Sebago Clean Waters, continue development of a water fund to be used to support forest conservation easements in the watershed.
- Utilize the \$350,000 Healthy Watershed Consortium grant to accelerate the pace of conservation by doing outreach to landowners, businesses, municipal leaders and philanthropic organizations.
- Continue collaboration with the Town of Standish to effectively influence management of the Rich Memorial Beach, the new Route 35 overlook facility, and operations at the Standish Boat Launch.
- Perform inspections of all property development in the shoreland zone of Sebago Lake.
- Provide technical assistance and grant funding for shoreland zone property owners, road associations and camps to improve storm water quality and mitigate soil erosion issues.
- Complete scheduled sampling and testing for all 14 lake and watershed water quality monitoring programs, analyze the data, and produce and post useful water reports.
- Monitor planning board agendas, provide technical assistance, and track large-scale projects such as subdivision and commercial development within the Sebago Lake watershed.
- Continue collaboration with the Presumpscot Regional Land Trust to ensure that Sebago to the Sea trail stewardship remains in accordance with District security/land use policies.
- Maintain communication with Portland Pipeline Corporation and continue monitoring the status of their operations and potential plans.

Environmental Laboratories

- Provide data support of WW Operation's diffused aeration operations plan development, as requested.
- Re-certify testing methods at East End and Sebago Lake laboratories for all reportable analytes.
- Report on water quality inquiries including those at dead end locations.
- Monitor for HAA9, metals, alcohols, pesticide and SVOC's per the EPA's fourth Unregulated Contaminant Monitoring Rule.
- Continue safety awareness and improvements through hazard analysis, Global Harmonized System secondary container labeling, chemical inventory procedures and coordinating District hazardous waste removal.
- Provide training to District staff to improve data quality and understanding.
- Provide nitrogen and phosphorus monitoring support at wastewater facilities to support nutrient testing program.

Industrial Pretreatment

- Manage IPT scheduling and data management through the District's AIM system.
- Take over responsibility for all aspects of the Portland pretreatment program.
- Hold outreach event for Portland industries.
- Support the promulgation into municipal ordinances of updated IPT local limits in Westbrook and Portland.
- Start implementing EPA's new Dental Amalgam Rule designed to protect receiving waters from mercury.
- Train WW Systems staff in the proper collection of IPT samples.

2019 Projects and Initiatives (continued)

District Security

- Lead meetings of the District’s Security Committee.
- Exercise District’s emergency response plan with either a full scale or table top exercise.
- Patrol Lower Bay by boat during summer, ensuring compliance with body contact and trespassing restrictions.
- Patrol Sebago Lake Land Reserve year-round to ensure compliance with District land use policy.
- Maintain enhanced patrol of the Otter Pond Parcel of the Sebago Lake Land Reserve to address the growing number of visitors.
- Provide field oversight of District logging operations and track documentation.
- Conduct training for Operations staff in security patrol procedures of District’s water storage facilities.
- Conduct training of Lake Office staff in Land Reserve patrol procedures.
- Support local first responders as requested in response to Sebago Lake rescue incidents.
- Patrol Lower Bay during ice fishing season to minimize impact of activity on water quality.
- Improve parking conditions at the Trestle kiosk.
- Support Water and Wastewater operations in their updates to emergency Integrated Contingency Plans.
- Perform audits of Facility Security Operating Plans (FSOPs) for all managed District facilities.
- Strengthen relationship and communication between PWD and local public health agencies.

Environmental Education and Outreach

- Implement the third year of WaterWays in watershed and service area schools, serving approximately 950 middle school students.
- Collaborate with partner organizations to deliver the WaterWays Program at two additional middle schools, reaching an anticipated 220 additional students.
- Provide source protection lessons to summer recreation camps in our service area and watershed.
- Implement the third year of *Water Connections* events, our outdoor recreation/science events held throughout the watershed and service area.
- Collaborate with a partner to coordinate some aspects of the TroutKids Program to effectively maintain or increase participation in watershed and service area schools.
- Collaborate with partners, coordinate events, and serve as a resource for watershed and service area schools and groups to teach source protection and water stewardship principles.
- Coordinate outreach initiatives with District public relations efforts.
- Utilize technology and a variety of media to connect the public with PWD events and environmental stewardship messages.
- Recognize Drinking Water Week with District-sponsored initiatives for the public.
- Provide outreach materials to the public including maps, calendars, and brochures.
- Provide support to the Southern Maine Children’s Water Festival.

Budget Year 2019 Staffing Changes:

- The 2019 budget reflects the elimination of one environmental scientist position from the L6 budget. This decreases laboratory analytical capacity but comes at a time when some of the permit requirements for wastewater testing have been decreased by the DEP. We will attempt to be more efficient in the delivery of support services to water and wastewater operations and, where possible, involve operations staffs in the collection and analysis of samples.

2019 Projects and Initiatives



Expand the WaterWays program to another additional school through collaboration with partners



Support Water and Wastewater operations to initiate updates to emergency Integrated Contingency Plans



Collaborate with a partner to coordinate some aspects of the TroutKids Program to increase program capacity

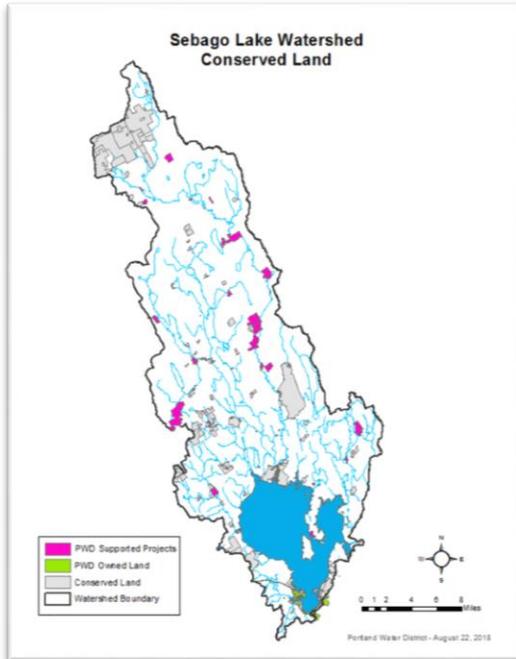


Maintain real-time water quality monitoring buoy in Lower Bay and continue refinement of data interface and data transmission



Continue support of WW Operation's diffused aeration operations plan development

2019 Projects and Initiatives



Continue development of a fund to be used to support forest conservation and accelerate the pace of land conservation in the watershed



Create additional installments in our video series about our source protection programs



Monitor for HAA9, metals, alcohols, pesticide and SVOC's per the EPA Unregulated Contaminant Monitoring Rule

2019 Grants to Watershed Partners			
2019 Proposed	Type	Recipient	Purpose
\$2,500	Water Education Grants	Educators in the service area and watershed	Education
<i>Provides teaching resources to local teachers to support water education.</i>			
\$16,000	Lakescaping Grants	Watershed property owners, businesses	Source Protection
<i>Grants of up to \$1,000 are made to individual property owners and up to \$2,000 to businesses, associations, or municipalities for implementing erosion and sedimentation control BMPs based on our recommendations. A 50-50 match is required.</i>			
\$1,250	Lake Protection Support	Maine Lakes Society	Advocacy
<i>A contribution of \$1,000 to Maine Lakes Society to support their operations and \$250 to support their annual conference. Their advocacy benefits all surface supplies including PWD.</i>			
\$1,250	Lake Protection Support	Volunteer Lakes Monitoring Program	Advocacy, Monitoring
<i>A contribution of \$1,000 to support their operations and \$250 to support their annual conference. Their outreach raises awareness statewide to issues of lake protection, particularly invasive aquatic plants. They conduct training at PWD and for PWD employees on request.</i>			
\$13,500	Watershed Organization Support	Lakes Environmental Association	Advocacy, Education, Source Protection
<i>LEA provides support for our upper watershed protection efforts. All lakes they work on ultimately lead to Sebago. LEA monitors lake water quality and participates in the planning process in upper watershed towns to minimize development impact. Staff provides technical assistance to lakefront landowners on BMPs for lake protection and compliance with Shoreland zoning and the Natural Resources Protection Act. LEA also provides water-related education to area schools and operates the Lakes Science Center.</i>			
\$1,000	Watershed Organization Support	Raymond Waterways Protective Association	Outreach, Source Protection
<i>RWPA works on invasive plant control, BMP installation, and do outreach via a newsletter. They work on 319 projects in the indirect watershed. They also receive financial support from the town, grants, and individuals.</i>			
\$1,500	Land Trust Support	Loon Echo Land Trust	Source Protection
<i>Loon Echo's mission is to conserve land in the towns of Denmark, Bridgton, Harrison, Naples, Casco, Sebago, and Raymond. The trust's service area encompasses 126,000 acres – nearly half - of the Sebago Lake watershed. As they make progress in pursuit of their mission, our water supply is better protected.</i>			

2019 Grants to Watershed Partners (Continued)

2019 Proposed	Type	Recipient	Purpose
\$1,500	Land Trust Support	Western Maine Foothills Land Trust	Source Protection
<i>The Western Foothills Land Trust is organized to conserve land in the towns of Otisfield, Norway, Bethel and Waterford, among others. The trust's service area encompasses 54,000 acres – about 20% - of the Sebago Lake watershed. As they make progress in pursuit of their mission, our water supply is better protected.</i>			
\$500	Land Trust Support	Presumpscot Regional Land Trust	Source Protection
<i>The Presumpscot Regional Land Trust is organized to conserve land in the towns of Gorham, Gray, Standish, Westbrook, and Windham. As they work to conserve land in parts of the watershed towns of Windham and Standish, our water supply is better protected. They are also the stewards of the Sebago to the Sea Trail that passes through District property.</i>			
\$500	Maine Water Conference Support	U Maine Mitchell Center	Public Relations
<i>Our support mostly serves a public relations function, ensuring the District's name on promotional materials. The conference also provides an opportunity to attract Maine colleges and Universities to research Sebago Lake.</i>			
\$800	Children's Water Festival	Southern Maine CWF Committee	Education, Public Relations
<i>Our support serves a PR purpose and contributes to the educational goal of the event, which is raising student awareness of water issues.</i>			
\$40,300	Total Grant Support to Watershed Partners		

Conservation Land acquired by Land Trusts with District support

Year	Transactions	Acres	Amount of District Support	Total Value of Land Acquired in Fee or Easement
2008	1	350	\$5,000	\$100,000
2009	1	23	\$500	\$25,000
2010	1	60	\$10,000	\$1,500,000
2011	1	690	\$9,250	\$750,000
2012	2	116	\$6,900	\$297,000
2013	4	1,005	\$68,990	\$1,268,500
2014	4	1,301	\$346,443	\$2,410,000
2015	2	91	\$38,435	\$374,100
2016	0	0	\$0	0
2017	2	108	\$13,600	\$143,000
2018	2	229	\$25,994	\$281,000
Total	20	3,973	\$525,112	\$7,148,600

Financial Overview

The overall Environmental Services budget is up 0.3% from the 2018 budget. The most significant change is the elimination of one Environmental Scientist Position and the budgeting of the new Industrial Pretreatment Supervisor position (which was only partly budgeted for in the 2018 budget) for a full year. On balance, these two changes resulted in a net decrease in labor costs for Environmental Services.

A5: Water Resources

- There is \$8300 in the Education budget which we plan to use to work with other education providers to enable the continued expansion of our education program into additional watershed and/or service area schools.
- \$2500 is budgeted to work with the USM Muskie School of Public Service on an updated assessment of the land uses in the Sebago Lake watershed. The last such assessment was done by USM using 2013 imagery.
- \$3000 is budgeted to restore trails and facilities for public access following PWD forestry activities.

L6: Laboratory Services

- This budget fully funds the Portland Pretreatment Program, many of the activities for which were previously the responsibility of the City of Portland.

Environmental Services: Total**Financial Summary:**

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
A5 - Water Resources	\$1,082,041	\$514,875	\$1,121,244	\$1,166,078	\$44,834	4.0%
L6 - Water/WW Laboratory	869,648	437,208	942,394	902,882	-\$39,512	-4.2%
Grand Total	1,951,689	952,083	2,063,638	2,068,960	5,322	0.3%
Expense Type:						
Salaries & Wages	\$997,480	\$497,569	\$1,050,956	\$1,051,655	\$699	0.1%
Employee Benefits	510,310	254,687	535,924	506,364	-\$29,560	-5.5%
Chemicals	3,725	2,518	5,100	4,900	-\$200	-3.9%
Contracted Services	115,429	43,908	115,836	127,370	\$11,534	10.0%
Heat/Fuel Oil	13,065	5,819	12,700	12,000	-\$700	-5.5%
Insurance	2,565	1,139	4,330	2,274	-\$2,056	-47.5%
Materials & Supplies	107,595	51,504	114,138	122,275	\$8,137	7.1%
Other Expense	140,598	67,625	171,929	189,754	\$17,825	10.4%
Purchased Power	3,655	1,714	3,145	3,207	\$62	2.0%
Tele/Other Utilities	2,104	1,802	2,687	4,765	\$2,078	77.3%
Transportation	55,163	23,798	46,893	44,396	-\$2,497	-5.3%
Grand Total	1,951,689	952,083	2,063,638	2,068,960	5,322	0.3%
Headcount:						
Full Time	15	16	16	15	-1	-6.3%
Part Time	1	1	1	1	0	0.0%
Total	16	17	17	16	-1	-5.9%

Environmental Services: Total

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$339,926	\$186,922	\$398,114	\$430,394	\$32,280	8.1%
660121 - WAGES/REGULAR UNION	557,300	280,106	574,899	539,520	(35,379)	-6.2%
660122 - WAGES/OVERTIME UNION	25,023	10,572	25,245	26,168	923	3.7%
660123 - WAGES/DOUBLETIME UNION	3,685	1,082	2,508	2,583	75	3.0%
660131 - WAGES - REGULAR - TEMPS	55,488	18,887	50,190	52,990	2,800	5.6%
66014 - VACATION ACCRUAL	(1,609)	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	17,667	-	-	-	-	n/a
Salaries & Wages Total	997,480	497,569	1,050,956	1,051,655	699	0.1%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	73,875	37,772	80,398	80,450	52	0.1%
660405 - SAFETY/WHY PROGRAM ITEMS	3,652	1,175	3,680	3,650	(30)	-0.8%
660411 - MEALS ALLOWANCE	6	-	-	-	-	n/a
6604151 - FIELD UNIFORMS	1,200	1,200	1,200	1,200	-	0.0%
660418 - STIPENDS	1,900	1,700	1,900	1,900	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	3,623	-	3,590	3,460	(130)	-3.6%
660491 - EE BENEFITS-REG/SAL	426,054	212,840	445,156	415,704	(29,452)	-6.6%
Employee Benefits Total	510,310	254,687	535,924	506,364	(29,560)	-5.5%
Chemicals						
661899 - OTHER CHEMICALS	3,725	2,518	5,100	4,900	(200)	-3.9%
Chemicals Total	3,725	2,518	5,100	4,900	(200)	-3.9%
Contracted Services						
66353 - REPAIR SERVICES	1,713	-	2,000	2,000	-	0.0%
66354 - MAINTENANCE SERVICES	52,850	22,828	48,844	53,740	4,896	10.0%
663546 - MAINTENANCE - SNOW REMOVL	9,042	5,173	1,600	1,600	-	0.0%
663551 - LAB ANALYSIS	37,944	12,946	42,602	43,460	858	2.0%
663553 - PHOTOGRAPHY SERVICES	600	275	600	850	250	41.7%
663561 - COMPUTER LICENSES	207	105	-	-	-	n/a
663574 - DISPOSAL SERVICES	845	325	3,600	3,600	-	0.0%
663587 - COURIER SERVICES	2,181	1,098	2,190	2,320	130	5.9%
6636 - TECHNICAL SERVICES	10,047	1,158	14,400	19,800	5,400	37.5%
Contracted Services Total	115,429	43,908	115,836	127,370	11,534	10.0%
Heat/Fuel Oil						
661622 - CONTAINER DELIVERED	6,474	3,604	5,700	5,000	(700)	-12.3%
66166 - UNLEADED GAS	6,591	2,215	7,000	7,000	-	0.0%
Heat/Fuel Oil Total	13,065	5,819	12,700	12,000	(700)	-5.5%
Insurance						
66599 - PROPERTY & BOILER INSUR	2,565	1,139	4,330	2,274	(2,056)	-47.5%
Insurance Total	2,565	1,139	4,330	2,274	(2,056)	-47.5%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Materials & Supplies						
6619 - ASSET PURCHASES	\$23,731	\$10,891	\$13,000	\$20,250	\$7,250	55.8%
66202 - TOOLS	1,246	141	1,500	1,600	100	6.7%
66203 - VENDOR PURCHASED SUPPLIES	6,653	3,670	11,450	14,100	2,650	23.1%
662042 - SUPPLIES INVENTORY	654	311	1,725	1,725	-	0.0%
662042 - TOOL INVENTORY	1,155	12	1,000	1,000	-	0.0%
662043 - TOOL INVENTORY	2,109	273	650	650	-	0.0%
66204302 - INVENTORY - PAPER	-	60	300	300	-	0.0%
66204303 - INVENTORY -COMPUTER EQUIP	660	554	5,150	1,650	(3,500)	-68.0%
662047 - GARAGE INVENTORY	-	-	100	100	-	0.0%
66205 - CONSUMABLE SUPPLIES	70,856	35,438	76,300	76,600	300	0.4%
66206 - COMPUTER RELATED EQUIP	531	154	2,963	4,300	1,337	45.1%
Materials & Supplies Total	107,595	51,504	114,138	122,275	8,137	7.1%
Other Expense						
66411 - INTERNAL RENTAL CHARGES	48,600	24,300	48,600	51,030	2,430	5.0%
6642 - EQUIPMENT RENT	87	-	300	300	-	0.0%
66601 - PUBLIC RELATIONS	5,019	528	7,400	10,050	2,650	35.8%
66609 - OTHER ADVERTISING	1,745	892	2,000	2,500	500	25.0%
6675111 - INSTATE TRAINING/CONF	6,820	2,679	6,550	6,900	350	5.3%
6675112 - OUT OF STATE TRAINING/CON	6,821	2,212	8,150	6,300	(1,850)	-22.7%
667513 - DUES	16,378	16,653	19,494	20,254	760	3.9%
667514 - PROFESSIONAL LICENSES	741	200	4,750	925	(3,825)	-80.5%
667515 - PERIODICAL SUBSCRIPTIONS	105	121	385	670	285	74.0%
667521 - POSTAGE - THIRD PARTY	848	767	2,800	3,300	500	17.9%
667522 - POSTAGE - INTERNAL	551	177	875	975	100	11.4%
667523 - POSTAGE - EXPRESS DELIVER	216	201	200	200	-	0.0%
667531 - PRINTING COSTS	21,038	5,439	21,800	25,750	3,950	18.1%
667555 - SAFETY EXPENSES	66	61	100	100	-	0.0%
667561 - WATERSHED GRANTS/SUPPORT	26,370	9,435	44,050	54,100	10,050	22.8%
667591 - UNIFORMS	1,531	785	2,000	2,150	150	7.5%
667592 - FOOD SUPPLIES	1,577	16	2,425	4,200	1,775	73.2%
667599 - OTHER MISCELLANEOUS	2,085	3,159	50	50	-	0.0%
Other Expense Total	140,598	67,625	171,929	189,754	17,825	10.4%
Purchased Power						
66155 - POWER - SMALL ENERGY	1,642	875	1,600	1,591	(9)	-0.6%
66156 - POWER - SMALL T&D	2,013	839	1,545	1,616	71	4.6%
Purchased Power Total	3,655	1,714	3,145	3,207	62	2.0%
Tele/Other Utilities						
66101 - WATER	165	87	335	335	-	0.0%
66111 - TELEPHONE LINES	-	87	-	350	350	n/a
66112 - DATA LINES	301	188	-	540	540	n/a
66113 - CELLULAR PHONES	1,587	1,440	2,352	3,540	1,188	50.5%
66114 - PAGERS	51	-	-	-	-	n/a
Tele/Other Utilities Total	2,104	1,802	2,687	4,765	2,078	77.3%
Transportation						
66501 - TRANSPORTATION - INTERNAL	24,512	7,712	15,728	16,169	441	2.8%
665019 - TRANS INTERNAL INACTIVE	22,901	11,617	21,865	19,077	(2,788)	-12.8%
66502 - TRANSPORTATION - EXTERNAL	19	5	-	-	-	n/a
66503 - MILEAGE REIMBURSEMENT	7,731	4,464	9,300	9,150	(150)	-1.6%
Transportation Total	55,163	23,798	46,893	44,396	(2,497)	-5.3%
Grand Total	1,951,689	952,083	2,063,638	2,068,960	5,322	0.3%

Environmental Services: Water Resources (A5)

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$569,918	\$288,279	\$584,078	\$609,550	\$25,472	4.4%
Employee Benefits	292,069	145,315	293,096	289,414	-3,682	-1.3%
Contracted Services	66,440	18,225	59,526	67,156	7,630	12.8%
Heat/Fuel Oil	12,318	5,819	12,700	12,000	-700	-5.5%
Insurance	2,565	1,139	4,330	2,274	-2,056	-47.5%
Materials & Supplies	15,917	9,325	29,488	34,075	4,587	15.6%
Other Expense	68,127	23,597	91,495	105,875	14,380	15.7%
Purchased Power	3,655	1,714	3,145	3,207	62	2.0%
Tele/Other Utilities	2,053	1,802	2,687	4,765	2,078	77.3%
Transportation	48,979	19,660	40,699	37,762	-2,937	-7.2%
Grand Total	1,082,041	514,875	1,121,244	1,166,078	44,834	4.0%
Programs:						
28 - Monitoring	100,364	81,422	140,733	153,203	12,470	8.9%
41 - Pretreatment	2,110	3,859	2,010	20,109	18,099	900.4%
56 - Tech Ops Support	53,147	30,819	49,545	69,397	19,852	40.1%
78 - Education	101,393	60,437	121,691	142,576	20,885	17.2%
82 - Lake Security - Land	168,481	70,935	142,336	147,597	5,261	3.7%
83 - Customer Outreach	144,905	64,051	149,158	168,461	19,303	12.9%
84 - Lake Security - Water	39,653	10,434	47,270	46,310	-960	-2.0%
98 - Training	39,997	18,344	41,170	38,517	-2,653	-6.4%
99 - Administration	431,991	174,574	427,331	379,908	-47,423	-11.1%
Grand Total	1,082,041	514,875	1,121,244	1,166,078	44,834	4.0%
Funds:						
10 - General	297,375	135,409	272,852	249,504	-23,348	-8.6%
20 - Water General	782,556	375,607	846,382	896,465	50,083	5.9%
50 - Wastewater General	0	605	0	66	66	n/a
57 - WW Portland	527	2,560	670	13,588	12,918	1928.1%
61 - WW Gorham	664	10	670	1,359	689	102.8%
62 - WW Westbrook	919	684	670	5,096	4,426	660.6%
Grand Total	1,082,041	514,875	1,121,244	1,166,078	44,834	4.0%
Headcount:						
Full-Time	8	8	8	8	0	0.0%
Part-Time	1	1	1	1	0	0.0%
Total	9	9	9	9	0	0.0%

Environmental Services: Laboratory Service (L6)**Financial Summary:**

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$427,562	\$209,290	\$466,878	\$442,105	-\$24,773	-5.3%
Employee Benefits	218,241	109,372	242,828	216,950	-25,878	-10.7%
Chemicals	3,725	2,518	5,100	4,900	-200	-3.9%
Contracted Services	48,989	25,683	56,310	60,214	3,904	6.9%
Heat/Fuel Oil	747	0	0	0	0	n/a
Materials & Supplies	91,678	42,179	84,650	88,200	3,550	4.2%
Other Expense	72,471	44,028	80,434	83,879	3,445	4.3%
Tele/Other Utilities	51	0	0	0	0	n/a
Transportation	6,184	4,138	6,194	6,634	440	7.1%
Grand Total	869,648	437,208	942,394	902,882	-39,512	-4.2%
Programs:						
28 - Monitoring	29	0	0	0	0	n/a
41 - Pretreatment	72,242	49,219	140,910	156,096	15,186	10.8%
56 - Tech Ops Support	72,881	44,335	77,396	74,064	-3,332	-4.3%
63 - Sample Analysis	363,640	184,472	397,020	357,416	-39,604	-10.0%
78 - Education	0	0	635	1,529	894	140.8%
98 - Training	40,696	15,687	32,027	32,109	82	0.3%
99 - Administration	320,160	143,495	294,406	281,668	-12,738	-4.3%
Grand Total	869,648	437,208	942,394	902,882	-39,512	-4.2%
Funds:						
10 - General	301,745	124,757	233,870	218,269	-15,601	-6.7%
20 - Water General	239,763	141,442	263,555	242,410	-21,145	-8.0%
50 - Wastewater General	210,136	100,806	269,732	316,903	47,171	17.5%
51 - WW Cape Elizabeth	3,671	1,501	3,867	4,770	903	23.4%
55 - WW Windham LF	0	0	0	594	594	n/a
57 - WW Portland	70,084	40,558	122,733	74,205	-48,528	-39.5%
61 - WW Gorham	5,164	4,015	4,679	6,333	1,654	35.3%
62 - WW Westbrook	26,520	15,765	29,668	25,183	-4,485	-15.1%
64 - WW Joint Westbrook	9,653	6,558	10,849	10,975	126	1.2%
66 - WW Peaks Island	2,912	1,806	3,441	3,240	-201	-5.8%
Grand Total	869,648	437,208	942,394	902,882	-39,512	-4.2%
Headcount:						
Full-Time	7	8	8	7	-1	-12.5%
Part-Time	0	0	0	0	0	n/a
Total	7	8	8	7	-1	-12.5%

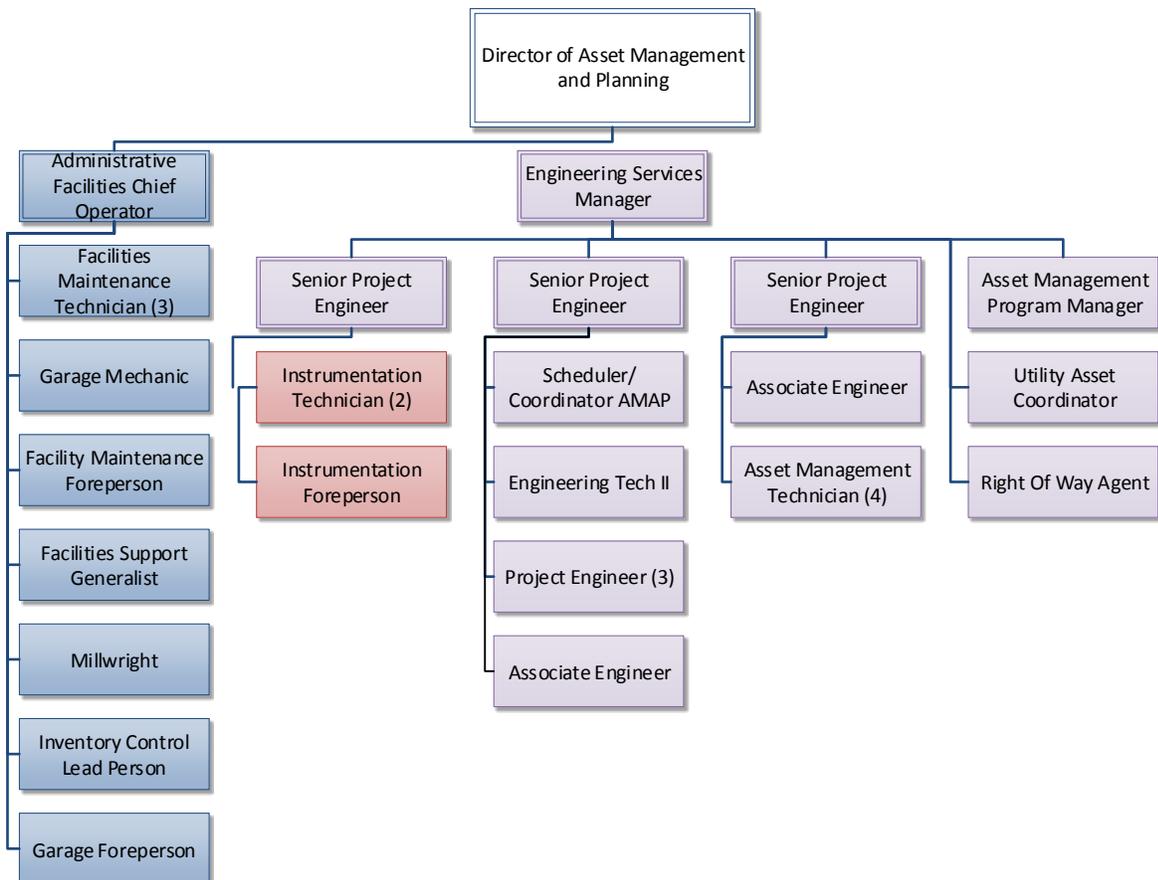
Engineering Services - Purpose Statement

To provide direct and supported design and construction of water, wastewater and administrative infrastructure and support an asset management approach to infrastructure acquisition and maintenance.

Core Services

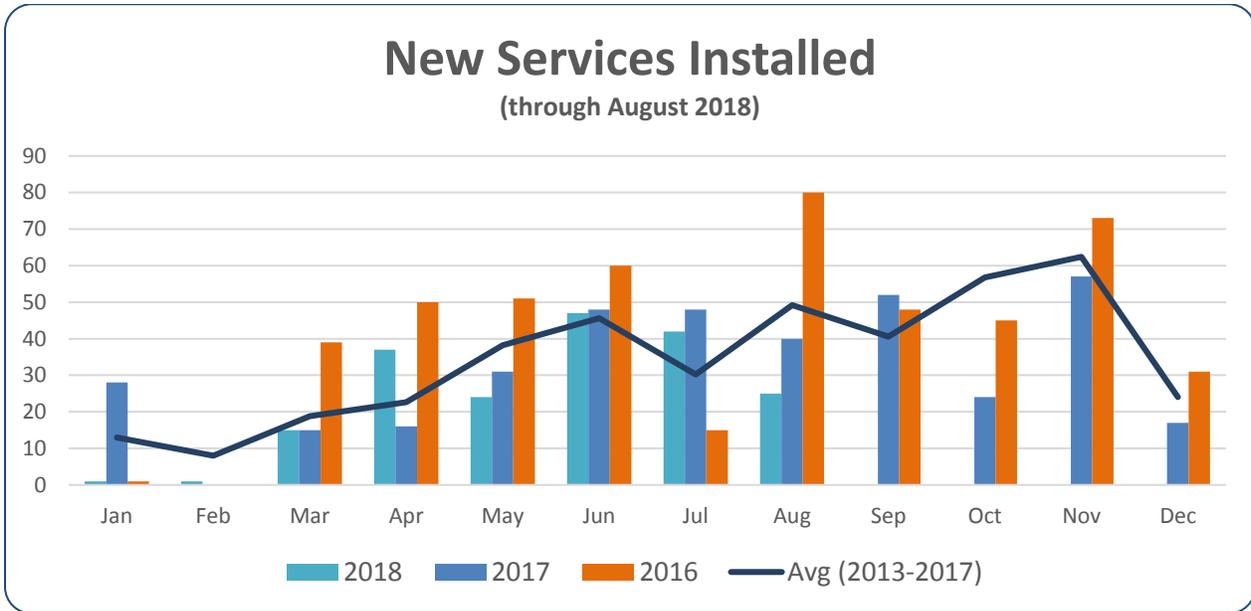
Engineering Services is responsible for providing engineering and maintenance services to internal and external customers. They are responsible for the following services:

- Manages planning and design of developer installed water and sewer infrastructure and coordination of existing District field and facilities assets. Supports long range planning, alternatives evaluation, and detailed design development of water main renewal programs as well as treatment and pumping facility projects. Provides construction oversight/recordkeeping for all infrastructure projects. (Asset Engineering Services Group, E2; purple in organization chart).
- Responsible for operation and maintenance of administrative facilities. Provides facility support services including garage, structural maintenance and stock room services (Facility Services Group-C1; blue in organization chart).
- Provides design, installation, maintenance and technical support of the Supervisory Control and Data Acquisition (SCADA) systems (Instrumentation Group-E7; red in organization chart).



Key Statistics

New Water Services



Assets in the Asset Information Management System (AIM)

Facilities	141
Facility Processes & Systems	1,320
Equipment/Components	10,795
Vehicles/Heavy Equipment	110
Water Service Association Assets (meters, backflows, etc.)	218,196
Water Field Assets	47,559
Sewer Field Assets	6,933
Total Assets	285,054

Performance Benchmarks

	2017 Actual	2018 Budget	2019 Budget
Corporate Goal – Reliability			
Leaks per 100 miles of main	8.0	<10	<10
Main Renewals, feet	10,100	28,000	22,700
Main Extensions, feet	26,800	25,000	24,000
Corporate Goal - Affordability			
New Water Services	376	500	500
Corporate Goal – Employees and Work Environment			
Employee Training Hours	82	80	80

Past Accomplishments

- Managed design/installation of 5 miles of water main renewals and 2 miles of extensions.
- Oversaw design and construction of projects at EEWWTF (Flow Split, Flow Metering) WRWWTF (Sludge Press), Northeast PS Odor Control, Fore River PS upgrade, Dana Court PS upgrade, Small pump station upgrade program and Wards Hill (Water Booster PS).
- Managed Douglas St HVAC and SLWTF Intake studies.
- Managed design and construction of water main replacement program.
- Worked with water and wastewater operations and environmental services staff to improve asset data and AIM understanding.
- Managed facilities projects across District including: Douglass St Office Engineering area and breakroom renovation, Nixon Room HVAC upgrade, HVAC duct cleaning and garage and boiler room roof replacement, Ecology Center HVAC renovation and Throttling Valve Building roof replacement.
- A number of employee suggestions were acted on in 2018 including:
 - Associate Engineer and Fourth Asset Management Tech positions added.
 - Defibrillators added
 - HVAC study of Douglass St undertaken
 - Piloted full electronic bid document distribution for internally managed project.

2019 Projects and Initiatives

Corporate Goals – Reliability and Affordability

- Manage and support vertical asset upgrade projects (Steep Falls facility, Windham Water Storage Tank, EEWWTF (Flow Split/Flow Metering, Backup Power), CEWWTF UV Treatment upgrade and headworks HVAC, Dana Court PS, Fore River PS Phil, Little John PS upgrade, etc. – Includes Employee suggestions).
- Improve water main replacement programs and manage design and delivery of projects.
- Develop PWD Infrastructure Master Plan study scope.
- Support improvements in wastewater project scoping to enable enhanced capital planning.
- Work with Wastewater and Water Ops, and Environmental Services to improve AIM data.
- Lead and support improvements in vertical asset data standards.
- Manage facilities projects around District including Douglass St HVAC master plan, EEWWTF repaving and various security projects.
- Provide core support of asset management and Asset implementation of ABC project.

Corporate Goal – Employees and Work Environment

- Reach an average of 80 hours of training per employee.
- Continue to support ongoing workplace safety management and training.

2018 Highlights



Completed EEWWTF Aeration Upgrade project partnering with wastewater operations.



Security gate upgrades at SLWTF and CEWWTF.



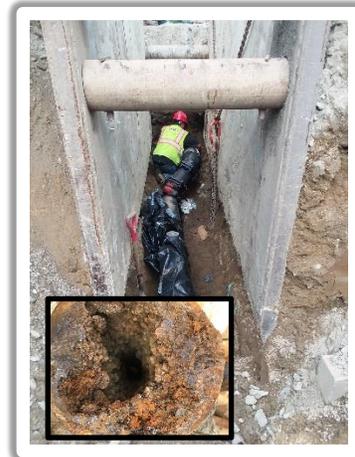
Interior improvements to Douglass Street facility including Engineering area and First and Third Floor break room renovations.



Wards Hill Pump Station

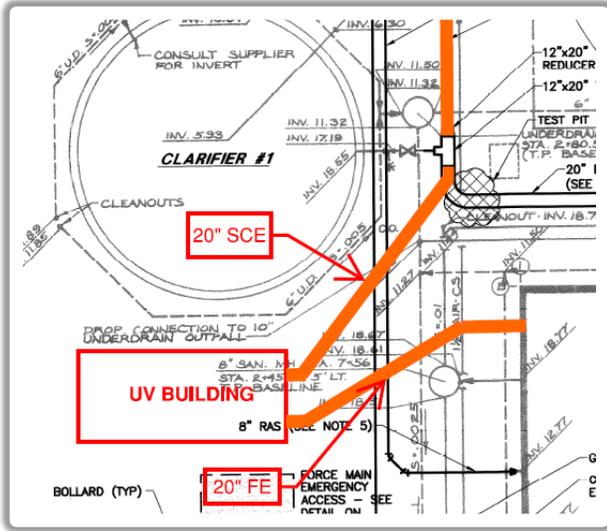


Douglass Street HVAC duct cleaning, Nixon room HVAC upgrade and reroofing of garage and boiler room areas.

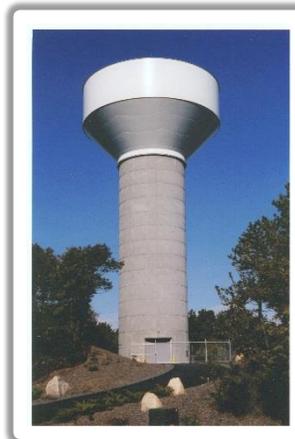


Successfully partnered with Municipalities and Developers to install water main replacements throughout District.

2019 Projects and Initiatives



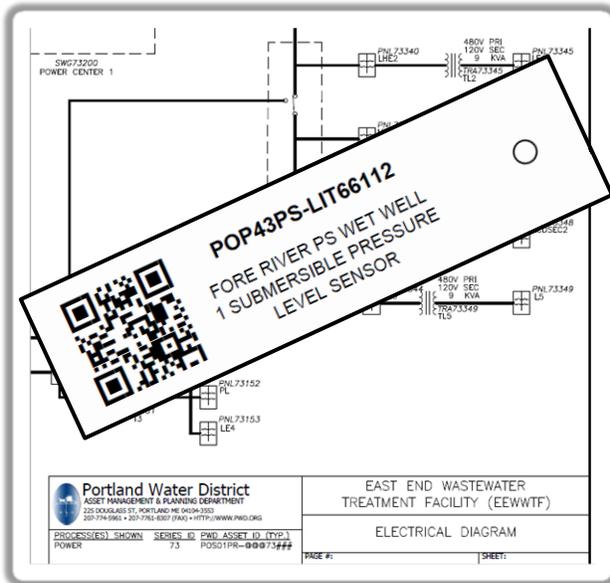
Final design and construction of UV disinfection system for CEWWTF. Lead design and construction program for water and wastewater vertical assets.



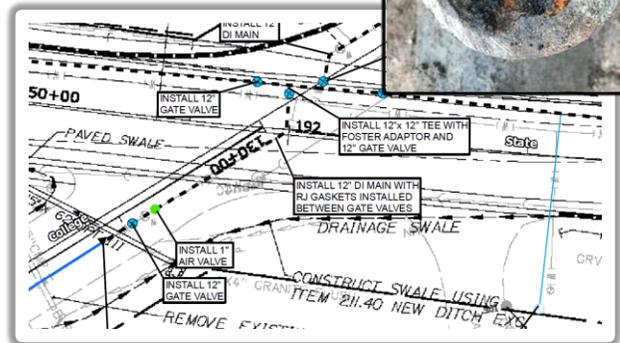
Design/Construction for Consolidated Elev. 407 Pressure Zone Storage tank - Windham



Continue improvements to Douglass St facility including HVAC and roof upgrades.



Continue to lead and support implementation of improved vertical asset definitions in AIM through teaming with Water and Wastewater Operations groups. Lead and support configuration of asset implementation of AIM software upgrade.



Lead program to prioritize, design and construct water main replacement program.

Financial Overview

The Engineering Services 2019 budget request is \$4,356,957 which is \$158,621 or 3.8% higher than last year's budget. The group consists of 3 subgroups – Facility Services (C1), Asset Engineering (E2) and Instrumentation (E7).

Facility Services' budget increases by \$55,041 or 2.7% primarily to higher projected costs associated with fuels and maintenance services.

Asset Engineering's budget increases by \$99,683 or 5.4%, reflecting the addition of an Associate Engineer position and Salaries/Wages/Benefits increases.

Instrumentations' budget increase is \$3,897 or 1.1%.

Significant Expense Type changes in 2019 are listed below:

Salaries, Wages and Employee Benefits

Salary and Wage line reflects the average increase of 3% and impact of upgrading the asset analyst position to an asset program manager.

Contracted Services

The line item includes an increase of \$62,920 primarily to reflect the annual licensing cost of the asset/work management portion of the Cayenta ABC software.

Deferred Cost Writeoff

This category was reduced 30% to \$10,100 to reflect the final charge-off of the Westbrook CSO master plan.

Materials and Supplies

The line item includes an increase of \$48,000 (9.6%) to cover increased costs associated with gasoline and diesel.

Engineering Services – Total

Financial Summary

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
C1 - Facilities Services	\$1,873,574	\$1,008,813	\$2,013,135	\$2,068,176	\$55,041	2.7%
E2 - Asset Engineering	1,763,066	838,196	1,832,540	1,932,223	\$99,683	5.4%
E7 - Instrumentation	321,154	162,912	352,661	356,558	\$3,897	1.1%
Grand Total	3,957,794	2,009,921	4,198,336	4,356,957	158,621	3.8%
Expense Type:						
Salaries & Wages	\$1,773,410	\$903,589	\$1,922,530	\$1,992,643	\$70,113	3.6%
Employee Benefits	956,534	485,484	1,016,581	1,003,489	-13,092	-1.3%
Contracted Services	416,581	245,602	493,863	556,783	62,920	12.7%
Deferred Cost W/O	97,845	7,200	14,400	10,100	-4,300	-29.9%
Heat/Fuel Oil	63,661	42,176	65,500	65,500	0	0.0%
Insurance	42,064	18,172	43,378	43,673	295	0.7%
Materials & Supplies	469,455	241,657	499,239	547,220	47,981	9.6%
Other Expense	-115,579	-70,445	-111,650	-110,270	1,380	-1.2%
Purchased Power	73,878	44,476	70,916	68,750	-2,166	-3.1%
Tele/Other Utilities	74,343	40,234	81,421	78,700	-2,721	-3.3%
Transportation	105,602	51,776	102,158	100,369	-1,789	-1.8%
Grand Total	3,957,794	2,009,921	4,198,336	4,356,957	158,621	3.8%
Headcount:						
Full Time	30	31	31	31	0	0.0%
Part Time	0	0	0	0	0	n/a
Total	30	31	31	31	0	0.0%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$951,460	\$479,932	\$1,038,876	\$1,078,608	\$39,732	3.8%
660121 - WAGES/REGULAR UNION	743,957	407,026	829,449	856,839	27,390	3.3%
660122 - WAGES/OVERTIME UNION	12,511	2,536	9,363	11,916	2,553	27.3%
660123 - WAGES/DOUBLETIME UNION	417	-	398	500	102	25.6%
660124 - WAGES/STANDBY TIME UNION	2,636	352	764	1,100	336	44.0%
660131 - WAGES - REGULAR - TEMPS	35,331	13,743	43,680	43,680	-	0.0%
660132 - WAGES - OVERTIME- TEMPS	38	-	-	-	-	n/a
66014 - VACATION ACCRUAL	8,259	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	18,801	-	-	-	-	n/a
Salaries & Wages Total	1,773,410	903,589	1,922,530	1,992,643	70,113	3.6%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	132,851	70,226	147,070	152,434	5,364	3.6%
660405 - SAFETY/WHY PROGRAM ITEMS	6,294	2,605	6,490	8,300	1,810	27.9%
660411 - MEALS ALLOWANCE	50	-	100	100	-	0.0%
660418 - STIPENDS	2,498	2,200	2,300	2,400	100	4.3%
660419 - EMPLOYEE BENEFITS-MISC OTH	9,776	5,000	5,860	10,722	4,862	83.0%
660491 - EE BENEFITS-REG/SAL	805,065	405,453	854,761	829,533	(25,228)	-3.0%
Employee Benefits Total	956,534	485,484	1,016,581	1,003,489	(13,092)	-1.3%
Contracted Services						
6631 - ENGINEERING SERVICES	8,431	2,890	5,000	5,000	-	0.0%
6635221 - PAVING - MINOR REPAIR	4,994	-	-	-	-	n/a
663524 - STREET OPENING	2,955	(310)	-	-	-	n/a
663525 - CONTRACTOR CONSTRUCTION	3,167	-	-	-	-	n/a
66353 - REPAIR SERVICES	5,613	11,393	16,000	17,000	1,000	6.3%
66354 - MAINTENANCE SERVICES	227,450	138,083	262,200	267,200	5,000	1.9%
663546 - MAINTENANCE - SNOW REMOVL	17,913	11,397	22,000	22,000	-	0.0%
663561 - COMPUTER LICENSES	25,431	12,141	28,203	30,203	2,000	7.1%
663562 - COMPUTER MAINTAINENCE	195	1,814	-	60,000	60,000	n/a
663563 - COMPUTER CONSULTING/OTHER	-	1,060	1,200	600	(600)	-50.0%
663574 - DISPOSAL SERVICES	12,779	4,778	23,500	23,500	-	0.0%
663587 - COURIER SERVICES	8,728	4,393	8,760	9,280	520	5.9%
663588 - EQUIPMENT MAINTENANCE	-	1,291	5,500	5,500	-	0.0%
663589 - SECURITY SERVICES	82,981	45,644	84,000	84,000	-	0.0%
6635985 - VEHICLE FLEET GPS SERVICE	9,163	10,780	30,000	25,000	(5,000)	-16.7%
663599 - MISC OTHER SERVICES	3,500	235	2,500	2,500	-	0.0%
6636 - TECHNICAL SERVICES	2,125	-	5,000	5,000	-	0.0%
663526 - INSPECTION SERVICES	1,156	13	-	-	-	n/a
Contracted Services Total	416,581	245,602	493,863	556,783	62,920	12.7%
Deferred Cost W/O						
66754 - DEFERRED COSTS WRITE OFF	97,845	7,200	14,400	10,100	(4,300)	-29.9%
Deferred Cost W/O Total	97,845	7,200	14,400	10,100	(4,300)	-29.9%
Heat/Fuel Oil						
66161 - HEATING OIL	50,596	-	-	-	-	n/a
661621 - PIPELINE DELIVERED PROPAN	1,570	35,619	49,000	49,000	-	0.0%
66166 - UNLEADED GAS	11,495	6,557	16,500	16,500	-	0.0%
Heat/Fuel Oil Total	63,661	42,176	65,500	65,500	-	0.0%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Insurance						
6656 - VEHICAL INSURANCE	\$30,228	\$12,658	\$31,306	\$32,233	\$927	3.0%
66561 - VEHICAL INSURANCE REIMBUR	26	-	-	-	-	n/a
66593 - UMBRELLA INSURANCE COVER	5,727	2,890	5,710	6,244	534	9.4%
66599 - PROPERTY & BOILER INSUR	6,083	2,624	6,362	5,196	(1,166)	-18.3%
Insurance Total	42,064	18,172	43,378	43,673	295	0.7%
Materials & Supplies						
6619 - ASSET PURCHASES	17,420	7,786	46,250	44,950	(1,300)	-2.8%
66202 - TOOLS	11,045	5,414	10,500	10,750	250	2.4%
66203 - VENDOR PURCHASED SUPPLIES	218,721	114,117	196,700	204,700	8,000	4.1%
662041 - MATERIALS INVENTORY	11,502	(4,674)	8,850	8,850	-	0.0%
662042 - SUPPLIES INVENTORY	20,872	13,211	20,150	19,650	(500)	-2.5%
66204203 - INVENTORY - CRUSHD GRAVEL	485	-	-	-	-	n/a
662043 - TOOL INVENTORY	11,979	8,166	11,050	11,300	250	2.3%
66204301 - INVENTORY - TONER	-	142	-	-	-	n/a
66204302 - INVENTORY - PAPER	-	-	500	-	(500)	-100.0%
66204303 - INVENTORY - COMPUTER EQUIP	2,873	2,215	3,913	3,913	-	0.0%
662044 - METER INVENTORY	(22,000)	(7,115)	-	-	-	n/a
662046 - HYDRANT INVENTORY	(2,181)	8,031	-	-	-	n/a
662047 - GARAGE INVENTORY	13,570	8,085	10,475	11,025	550	5.3%
66204701 - INVENTORY - UNLEADED GAS	121,446	51,162	103,125	121,550	18,425	17.9%
66204702 - INVENTORY - DIESEL	46,080	21,011	45,738	57,057	11,319	24.7%
66204703 - INVENTORY - TIRES	12,348	2,349	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	502	630	3,400	3,400	-	0.0%
66206 - COMPUTER RELATED EQUIP	4,793	11,127	23,588	35,075	11,487	48.7%
Materials & Supplies Total	469,455	241,657	499,239	547,220	47,981	9.6%
Other Expense						
6642 - EQUIPMENT RENT	2,682	1,947	2,500	3,000	500	20.0%
667511 - TRAINING & CONFERNCES	960	-	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	24,518	8,162	21,500	20,500	(1,000)	-4.7%
6675112 - OUT OF STATE TRAINING/CON	8,630	1,546	8,100	9,100	1,000	12.3%
6675121 - IN STATE CONFERENCES	12	-	-	-	-	n/a
6675122 - OUT-OF-STATE CONFERENCES	651	-	-	-	-	n/a
667513 - DUES	1,835	30	2,850	3,000	150	5.3%
667514 - PROFESSIONAL LICENSES	1,150	1,721	4,100	4,180	80	2.0%
667515 - PERIODICAL SUBSCRIPTIONS	-	-	800	800	-	0.0%
667516 - PERMITS	1,254	90	2,000	2,000	-	0.0%
667522 - POSTAGE - INTERNAL	170	38	400	400	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	1,156	692	1,500	1,500	-	0.0%
667552 - SAFETY TRAINING	495	-	500	750	250	50.0%
667555 - SAFETY EXPENSES	793	-	2,000	3,000	1,000	50.0%
667556 - FREIGHT CHARGES (STOCK)	(551)	38	8,000	8,000	-	0.0%
667592 - FOOD SUPPLIES	519	-	50	50	-	0.0%
667599 - OTHER MISCELLANEOUS	5,199	1,810	550	550	-	0.0%
6676 - EXPENSE OFFSET	(165,052)	(86,519)	(166,500)	(167,100)	(600)	0.4%
Other Expense Total	(115,579)	(70,445)	(111,650)	(110,270)	1,380	-1.2%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Purchased Power						
66153 - POWER - MEDIUM ENERGY	\$43,220	\$28,782	\$44,467	\$44,836	\$369	0.8%
66154 - POWER - MEDIUM T&D	28,188	13,877	23,748	21,562	(2,186)	-9.2%
66155 - POWER - SMALL ENERGY	997	930	1,360	1,141	(219)	-16.1%
66156 - POWER - SMALL T&D	1,473	887	1,341	1,211	(130)	-9.7%
Purchased Power Total	73,878	44,476	70,916	68,750	(2,166)	-3.1%
Tele/Other Utilities						
66101 - WATER	9,750	4,885	12,000	12,000	-	0.0%
66103 - STORMWATER CHARGES	13,032	7,656	13,684	13,866	182	1.3%
66111 - TELEPHONE LINES	22,692	12,011	23,905	20,792	(3,113)	-13.0%
66112 - DATA LINES	22,301	12,520	25,300	24,410	(890)	-3.5%
66113 - CELLULAR PHONES	6,279	3,162	6,532	7,380	848	13.0%
66114 - PAGERS	289	-	-	252	252	n/a
Tele/Other Utilities Total	74,343	40,234	81,421	78,700	(2,721)	-3.3%
Transportation						
66501 - TRANSPORTATION - INTERNAL	40,944	16,727	39,056	41,570	2,514	6.4%
665019 - TRANS INTERNAL INACTIVE	61,067	33,606	56,402	52,149	(4,253)	-7.5%
66502 - TRANSPORTATION - EXTERNAL	1,416	556	3,250	3,700	450	13.8%
66503 - MILEAGE REIMBURSEMENT	2,135	887	3,450	2,950	(500)	-14.5%
66504 - MTA TRANS-PASS TOLL FEES	40	-	-	-	-	n/a
Transportation Total	105,602	51,776	102,158	100,369	(1,789)	-1.8%
Grand Total	3,957,794	2,009,921	4,198,336	4,356,957	158,621	3.8%

Engineering Services - Facilities Services (C1)

Financial Summary

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$503,764	\$262,991	\$520,074	\$537,524	\$17,450	3.4%
Employee Benefits	268,320	138,354	273,800	267,555	-6,245	-2.3%
Contracted Services	373,513	226,531	456,960	458,480	1,520	0.3%
Heat/Fuel Oil	63,661	42,176	65,500	65,500	0	0.0%
Insurance	42,064	18,172	43,378	43,673	295	0.7%
Materials & Supplies	444,626	218,491	454,526	495,245	40,719	9.0%
Other Expense	-14,756	-6,878	2,450	3,750	1,300	53.1%
Purchased Power	73,878	44,476	70,916	68,750	-2,166	-3.1%
Tele/Other Utilities	65,784	36,378	70,129	67,508	-2,621	-3.7%
Transportation	52,720	28,122	55,402	60,191	4,789	8.6%
Grand Total	1,873,574	1,008,813	2,013,135	2,068,176	55,041	2.7%
Programs:						
23 - Stockroom Operations	81,813	51,598	123,039	131,816	8,777	7.1%
24 - Distribution Operations	77,539	28,075	55,933	55,899	-34	-0.1%
30 - Maintenance	232,556	119,172	239,279	239,526	247	0.1%
55 - Prof Ops Support	84,194	42,972	79,676	80,965	1,289	1.6%
90 - Vehicles	607,316	286,525	623,787	656,670	32,883	5.3%
93 - Stockroom Scrap	20,324	3,339	250	250	0	0.0%
95 - Douglass Street	597,628	373,539	699,855	704,732	4,877	0.7%
98 - Training	39,653	34,386	41,301	41,481	180	0.4%
99 - Administration	132,551	69,207	150,015	156,837	6,822	4.5%
Grand Total	1,873,574	1,008,813	2,013,135	2,068,176	55,041	2.7%
Funds:						
10 - General	1,377,148	763,657	1,514,958	1,559,720	44,762	3.0%
20 - Water General	416,010	201,873	359,065	369,626	10,561	2.9%
30 - Water Standish	1,184	2,630	4,508	5,585	1,077	23.9%
51 - WW Cape Elizabeth	15,316	9,724	26,553	25,860	-693	-2.6%
53 - WW Cumberland	5,669	3,212	9,124	8,904	-220	-2.4%
55 - WW Windham LF	808	444	0	721	721	n/a
57 - WW Portland	23,850	13,480	67,844	67,076	-768	-1.1%
61 - WW Gorham	8,445	3,353	7,495	7,245	-250	-3.3%
62 - WW Westbrook	3,891	2,147	4,419	4,095	-324	-7.3%
64 - WW Joint Westbrook	8,205	6,275	10,767	10,693	-74	-0.7%
65 - WW Joint LF	1,676	1,253	3,488	3,256	-232	-6.7%
66 - WW Peaks Island	11,372	765	4,914	5,395	481	9.8%
Grand Total	1,873,574	1,008,813	2,013,135	2,068,176	55,041	2.7%
Headcount:						
Full-Time	10	10	10	10	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	10	10	10	10	0	0.0%

Engineering Services - Asset Engineering Services (E2)

Financial Summary

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$1,104,526	\$554,744	\$1,229,809	\$1,275,981	\$46,172	3.8%
Employee Benefits	602,467	301,000	651,346	646,592	-4,754	-0.7%
Contracted Services	18,617	8,536	10,450	71,850	61,400	587.6%
Deferred Cost W/O	97,845	7,200	14,400	10,100	-4,300	-29.9%
Materials & Supplies	11,315	18,214	19,150	26,900	7,750	40.5%
Other Expense	-105,942	-65,856	-124,650	-124,570	80	-0.1%
Tele/Other Utilities	5,678	2,882	7,800	6,900	-900	-11.5%
Transportation	28,560	11,476	24,235	18,470	-5,765	-23.8%
Grand Total	1,763,066	838,196	1,832,540	1,932,223	99,683	5.4%
Programs:						
57 - Means Coordination	414,432	184,195	379,911	391,011	11,100	2.9%
79 - Amap Services	483,454	183,287	551,077	546,719	-4,358	-0.8%
94 - Technology Teams	155,173	100,799	289,946	313,001	23,055	8.0%
98 - Training	93,596	50,858	88,225	89,278	1,053	1.2%
99 - Administration	616,411	319,057	523,381	592,214	68,833	13.2%
Grand Total	1,763,066	838,196	1,832,540	1,932,223	99,683	5.4%
Funds:						
10 - General	747,921	406,367	805,670	904,844	99,174	12.3%
20 - Water General	753,618	333,809	738,963	762,529	23,566	3.2%
50 - Wastewater General	34,909	15,208	273,396	254,750	-18,646	-6.8%
51 - WW Cape Elizabeth	41,608	4,582	0	0	0	n/a
53 - WW Cumberland	4,415	627	0	0	0	n/a
55 - WW Windham LF	5,789	981	0	0	0	n/a
57 - WW Portland	99,955	41,364	111	0	-111	-100.0%
61 - WW Gorham	5,861	371	0	0	0	n/a
62 - WW Westbrook	26,549	17,167	14,400	10,100	-4,300	-29.9%
64 - WW Joint Westbrook	27,264	14,258	0	0	0	n/a
66 - WW Peaks Island	15,177	3,462	0	0	0	n/a
Grand Total	1,763,066	838,196	1,832,540	1,932,223	99,683	5.4%
Headcount:						
Full-Time	16	18	18	18	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	16	18	18	18	0	0.0%

Engineering Services - Instrumentation Services (E7)

Financial Summary

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$165,120	\$85,854	\$172,647	\$179,138	\$6,491	3.8%
Employee Benefits	85,747	46,130	91,435	89,342	-2,093	-2.3%
Contracted Services	24,451	10,535	26,453	26,453	0	0.0%
Materials & Supplies	13,514	4,952	25,563	25,075	-488	-1.9%
Other Expense	5,119	2,289	10,550	10,550	0	0.0%
Tele/Other Utilities	2,881	974	3,492	4,292	800	22.9%
Transportation	24,322	12,178	22,521	21,708	-813	-3.6%
Grand Total	321,154	162,912	352,661	356,558	3,897	1.1%
Programs:						
81 - Instrumentation & Contr	207,497	97,978	220,950	223,281	2,331	1.1%
94 - Technology Teams	0	0	0	1,885	1,885	n/a
98 - Training	15,790	7,599	19,633	19,737	104	0.5%
99 - Administration	97,867	57,335	112,078	111,655	-423	-0.4%
Grand Total	321,154	162,912	352,661	356,558	3,897	1.1%
Funds:						
10 - General	113,657	64,934	131,711	133,277	1,566	1.2%
20 - Water General	129,330	42,851	86,476	82,993	-3,483	-4.0%
50 - Wastewater General	13,171	5,296	70,216	73,787	3,571	5.1%
51 - WW Cape Elizabeth	16,924	6,825	450	450	0	0.0%
53 - WW Cumberland	2,484	1,606	900	900	0	0.0%
57 - WW Portland	27,490	24,588	61,108	63,351	2,243	3.7%
61 - WW Gorham	7,953	3,540	450	450	0	0.0%
62 - WW Westbrook	1,546	2,431	450	450	0	0.0%
64 - WW Joint Westbrook	5,165	4,536	500	500	0	0.0%
65 - WW Joint LF	415	592	0	0	0	n/a
66 - WW Peaks Island	3,019	5,713	400	400	0	0.0%
Grand Total	321,154	162,912	352,661	356,558	3,897	1.1%
Headcount:						
Full-Time	4	3	3	3	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	4	3	3	3	0	0.0%

Administrative Services - Purpose Statement

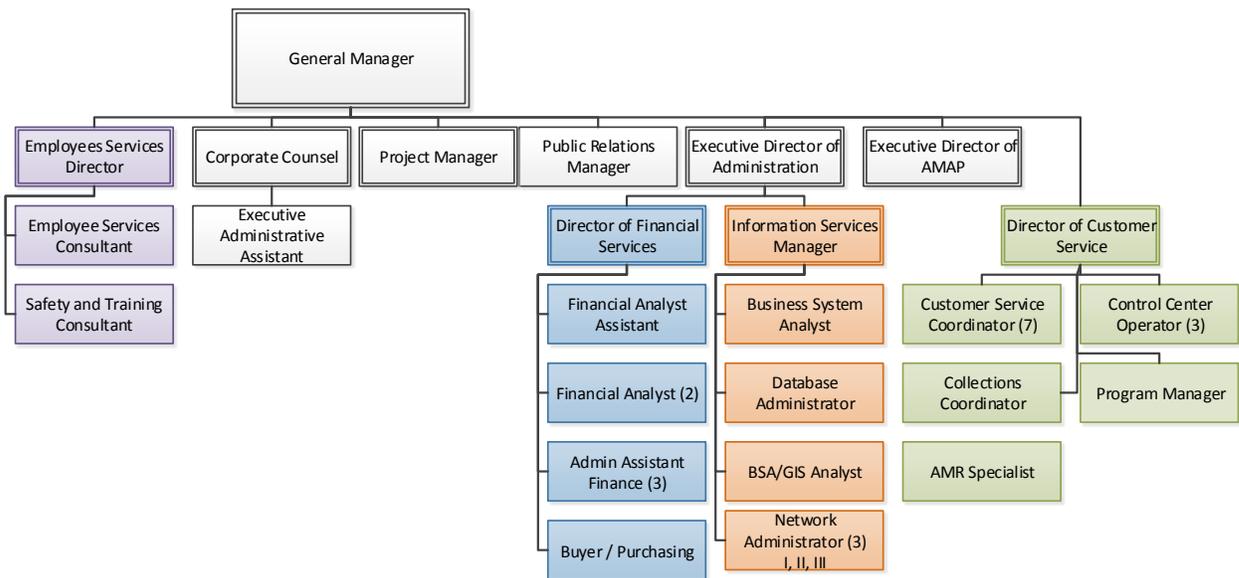
To provide support services to internal and external customers.

Core Services

Administrative Services provides support services to internal and external customers by providing the following services:

- External customers’ call center response and billing services (Customer Service Group- F1; green in the organization chart).
- Computer system and related technology support and maintenance services (Information Services Group – G1; orange in the organization chart).
- Financial transaction processing and information services (Financial Services Group – H1; blue in the organization chart).
- Employee development, benefits and management services (Employee Services Group – I1; purple in the organization chart).

The District has an eight-person group (Executive Group – J1; black in the organization chart) that directs, oversees and provides administrative support for the District.



Past Accomplishments and 2019 Projects and Initiatives

Customer Service

2018 Accomplishments:

- Rates: Changed and tested revised Portland Water District's water rates and sewer rates for Cape Elizabeth, Portland, South Portland, Falmouth and Cumberland.
- Large meter review: Continued collaboration and focus with Water Ops in reviewing and addressing any large meters with issues with monthly meetings. This has proven successful, as the number of outstanding large meters issues has significantly decreased since the start of this program.
- Fully trained a backup for our Collection Coordinator. This included both field and office training.
- Electronic report transition: We have worked on transitioning all reports to electronic. Training of Customer Service representatives on its function will continue into 2019.
- Drinking water week: During last year's budget talks with the General Manager, it was requested that Customer Service have more involvement in Drinking Water Week, a national water industry promotion. We had flyers available at the front desk for our walk in customers and included some Customer Service frequently asked question (FAQ)'s on the insert that went out with billing. We will continue to look for ways to incorporate more involvement next year.
- New Billing System: Customer Service personnel have been involved with implementing the system from the start. We have dedicated 1 full time employee and 3 part time to the project. Time and effort in supporting the project has been significant and will continue into next year.

2019 Projects and Initiatives:

- Service Levels and rate changes: Continue focus on meeting both objectives while supporting new billing system in 2019.
- Continue a more in depth training effort for the Collection Coordinator position as well as Meter Reading. The plan for 2019 is to dedicate one day per quarter to provide refresher training and review.
- Participate in New England Water Works' Customer Service Committee efforts to develop customer service related training.
- Develop an appropriate plan to transition customers to the billing system/bill while educating them on other functions that will be available with the online Customer portal.
- Update documentation and procedures for the new billing system (Cayenta) process, including updating the Terms & Conditions as needed.
- Work with the Public Relations Manager to promote our low-income programs.
- Support the efforts and progress of the new billing system project.

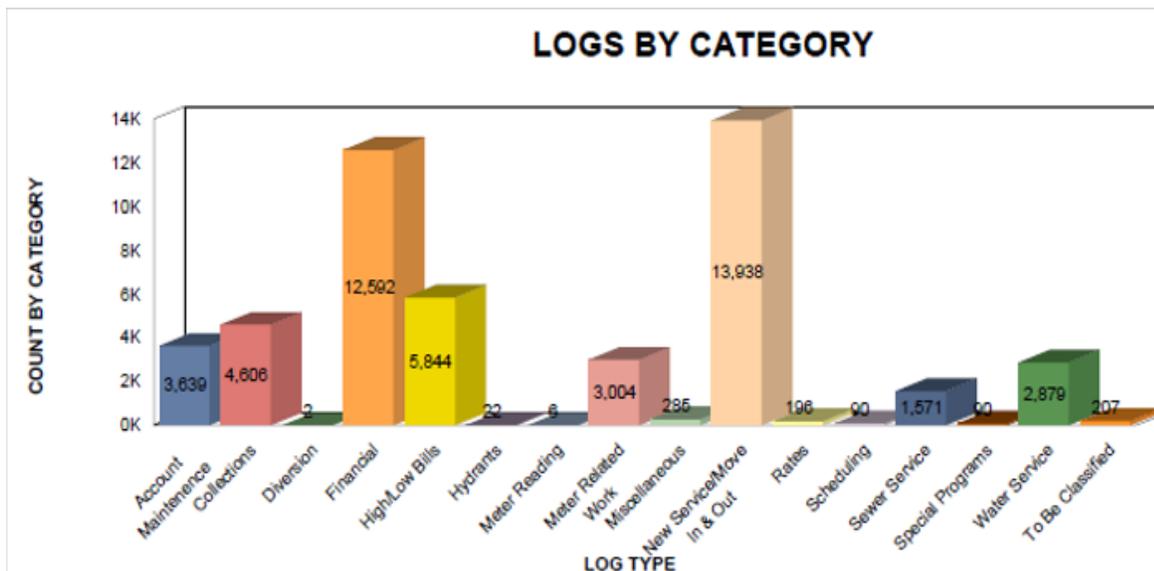
Customer Service (continued)

CS Department Key Statistics:

<u>Key Statistic</u>	<u>2015 Actual</u>	<u>2016 Actual</u>	<u>2017 Actual</u>	<u>2018 Projected</u>	<u>2019 Goal</u>
Customer Service	54,300	54,700	55,100	55,500	55,900
Phone Calls answered within 1 min	85%	88%	86%	90%	82%
Customer Satisfaction	97%	97%	98%	97%	95%
Actual vs Estimated reads	99.60%	99.63%	99.67%	99.50%	99%
Accurate bill Index	99.96%	99.96%	99.97%	99.96%	85%
Customer Contacts	51,923	54,753	48,971	56,565	60,000
Bills produced	642,060	647,429	652,974	654,360	657,974

Customer Service – Customer Contacts

Customer Services handles over 57,000 customer contacts a year via phone, email and in person. With the billing system implementation scheduled for 2019, additional contacts are expected.



Past Accomplishments and 2019 Projects and Initiatives (continued)

Information Services

2018 Accomplishments

System upgrades:

- Data switch upgrade across network – 20 switches.
- Wireless network deployed connecting Douglass Street (main office) to East End Wastewater Treatment facility.
- Planning for the Finance Plus (Superion) financial package upgrade.
- SharePoint upgrade initiated. (Sharepoint 2010 to SharePoint 2016)
- Shoretel phone system upgrade.
- Support of Asset, Billing and Customer Relation Project.
- Call recording software update.

Process Improvements:

- New user onboarding process refined.
- Employee departure process refined.
- Migration of Customer Service Department from paper based reporting to digital.
- Automation of new asset creation from design level to production in the GIS.
- New digital delivery process created for the distribution of departmental monthly financial reports.

System Security

- Security Awareness Training – End-user Cyber Security training conducted throughout the year to raise awareness related to the topic.
- New security software installed to increase our security posture.
- Network Security Audit conducted.
- Continued build out of cold site - As a backup to our data center at Douglass Street, we continued to build out our cold site at our Sebago Lake Treatment Plant.
- PWD IS Department Overview sessions – We will be conducting several sessions for employees to understand what the Information Services does on a daily basis

2019 Projects and Initiatives

System upgrades:

- SharePoint upgrade – finish project started in 2018 to upgrade SharePoint from SharePoint 2010 to SharePoint 2016.
- Provide support for Asset, Billing & Customer Relation Project.
- Expand Wi-Fi access at treatment plants to allow connectivity to mobile devices throughout plants.
- Continued migration of physical servers to virtual servers.
- Shoretel Phone System upgrade.
- Hach WIMS upgrade.
- AIM Spatial (GIS Viewer) upgrade.

Information Services

2019 Projects and Initiatives (continued)

Process Improvements:

- Develop additional digital workflows to replace paper-based processes.
- Implement additional system monitoring
- Conference room upgrades.

System Security

- Security Awareness Training – Continue End-user Cyber Security training throughout the year to raise awareness related to the topic.
- Network Security Audit – Admin Network
- Continued build out of cold site - As a backup to our data center at Douglass Street, we will continue to build out our cold site at our Sebago Lake Treatment Plant.

Training

- PWD IS Department Overview sessions – We will be conducting several sessions for employees to understand what the Information Services does on a daily basis
- Continued Information Services inter-departmental cross training.
- Technical training for Information Services staff.

IS Department Key Statistics:

Devices Maintained

Device Type	2017	2018	2019
Servers	28	20	15
Virtual Servers	58	50	60
Laptops	56	55	58
CPU	28	25	25
Thin Clients	130	130	140
Firewall	6	7	8
Switches	30	25	25
Routers	5	5	7
Phone Switches	11	11	11
Desk Phones	170	168	170
Smart Phones	20	20	20
Printers/Scanner	27	26	26
Copiers	8	9	9
iPads	24	21	21
Total	601	572	595

Major Applications:

AutoCAD
 Callrex Call Recording
 Citrix Presentation Server and XenServer
 VMWare
 Crystal Reports
 Cayenta
 ESRI GIS
 Hach WIMS
 Hansen Asset Management/
 Customer Relation
 Informix (1), Oracle (3) and SQL (3) databases
 Microsoft Office 2016
 Pentamation Financial
 SharePoint Enterprise 2010
 ShoreTel IP Phone System
 Windows Server 2008
 Windows Server 2012
 Windows Server 2016

Past Accomplishments and 2019 Projects and Initiatives (continued)

Financial Services

2018 Accomplishments

- Received Government Finance Officers Association’s “Certificate of Achievement for Excellence in Financial Reporting” for the 2016 Comprehensive Annual Financial Report (CAFR) and the “Distinguished Budget Presentation Award” for the 2018 Comprehensive Budget Report for the eighth year in a row.
- Created an online portal for the delivery of monthly financial information to the individual managers and the Senior Management Team (SMT).
- Cross-trained new staff members on the different responsibilities of the department as previous staff turnover shifted responsibilities throughout the department.

2019 Projects and Initiatives

- Update the current Finance Plus (Superion) financial package from version 4.3 to version 5.1. This will include a new requisition approval process through the new “work flow” product as well as an enhanced Employee Access Center (EAC).
- Change the over 100 current Crystal report writer reports to the new Cognos report writer software that is being adopted by the District.
- Support Asset, Billing and Customer Relation project system upgrade in concert with the upgrade of the Finance Plus system to continue to pull payroll, transportation and inventory data into the financial system.
- Continue to upgrade financial information provided to the Board of Trustees and management through more visual/graphical presentations of financial data.
- Continue to review of best practices of financial systems as processes change with the adoption of the new CIS and Asset Management systems being brought on by the ABC project.

Finance Plus Upgrade Timeline:

Task Name	Duration	Start	Finish
PLUS Standard 5.1/9.1 Upgrade			
PLANNING			
Welcome Email from Superior Project Manager	0.5 days	8/30/18	8/30/18
Build Checklist and send out Starter material	0.5 days	9/4/18	9/4/18
Complete and return checklist	10 days	9/4/18	9/18/18
Build Initial Project Plan	2 days	9/18/18	9/20/18
Kick-off Call	1 hr	8/31/2018	8/31/2018
Review Upgrade Handbook and Project Plan	5 days	9/19/18	9/26/18
Confirm Hardware and specs are complete	1 day	9/18/18	9/19/18
Approve Training, Parallel and Go Live Dates	7 days		
Installation			
Pre-install Kick off call	1 hour	10/24/2018	10/24/2018
Install Prep	3 days	10/24/2018	10/26/2018
Install Software	3 days	10/30/2018	11/1/2018
Perform System Readiness Review	15 days	11/2/2018	11/23/2018
Hand off Install call	2 hrs	11/27/18	11/27/18
EXECUTION			
Client In-House System Review	5 days	11/27/18	12/4/18
FinancePLUS Upgrade Training	3 days	11/27/2018	11/29/2018
Create and Send out Client Checklist - to be done after training	0.5 days	11/29/2018	11/29/2018
Client Testing			
Client Testing	15 days	12/3/2018	12/21/2018
Complete Testing Checklists	1 day	12/21/2018	12/21/2018
Mock Go-Live/Parallel Payroll Test			
Environment Refresh	1 day	1/14/2019	1/14/2019
Client Testing	13 days	1/15/2019	1/31/2019
GO LIVE AND SUPPORT			
Pre Go Live Call	1 hr	2/1/2019	2/1/2019
Go Live Prep and Clean up	6 days	2/1/2019	2/8/2019
Final Environment Refresh	2 days	2/11/2019	2/12/2019
Go Live	2 days	2/13/2019	2/15/2019
Go Live complete notifications	1 hr	2/15/2019	2/15/2019
Transition from Project Manager to Support	9 days	2/18/2019	2/28/2019

Past Accomplishments and 2019 Projects and Initiatives (continued)

Employee Services

2018 Accomplishments

NEW Employee Assistance Program: A more robust and comprehensive Employee Assistance Program (EAP) has been introduced to PWD through Anthem. Among the many services are:

- Confidential counseling on a variety of topics for employees and their household members
- 24/7 crisis intervention services
- 6 educational sessions annually ranging from:
 - Communication skills
 - Parenting
 - Leadership development
 - Health and wellness
 - Risk management
 - Financial/legal

Respectful Workplace Training: Rick Feinberg, of the Bennett Law Firm, provided multiple sessions for supervisors and employees on the topic of A Respectful Workplace. This fulfilled our annual anti-harassment training requirement and helped everyone to appreciate and understand the importance of our interactions and communications in the workplace.

Compensation: Conducted a bi-annual salary survey of union positions.

Retirement Planning:

- Representatives from the Principal, our carrier for the 457 Plan, provided both group and individual retirement planning counseling sessions.
- Two new Vanguard funds that are well rated with low fees were added to the investment funds available through the 457 Plan.
- Presentations were provided on the topics of understanding Medicare and Social Security.
- Custodial services were moved to Morgan Stanley for the Defined Benefit Plans, reducing the pension expenses by \$74,000 annually.

Worker’s Compensation: The District’s mod rate dropped for three years in a row to the lowest level in over a decade in 2018. Effective January 1, 2016 it dropped to 0.84, saving approximately \$60,000 annually in premiums. Effective January 1, 2017 it dropped to 0.73, resulting in approximately another \$10,000 in annual premium reductions. Effective January 1, 2018, the mod rate again dropped to 0.68, saving approximately \$4,000 more in annual premiums. However, due to a few recent high cost workplace injuries, all of which are fully resolved, our mod rate will increase to 0.95 effective January 1, 2019. This will be approximately \$45,000 more in premiums. We will continue to vigilantly monitor workplace injuries, investigate all accidents and examine the situations associated with these claims. The following is a recent history of the worker’s compensation experience mod rates for PWD:



Past Accomplishments and 2019 Projects and Initiatives (continued)

Employee Services (continued)

2018 Accomplishments (continued)

Health Plan:

We received a very modest 3% increase in the health renewal effective 1/1/19, with no change in our plan design. Both union and non-union employee contributions toward single coverage increased to 7% for calendar year 2017, and will increase to 8% effective 1/1/18, which is still significantly lower than the national average of 17%. We anticipate an increase to the amount that employees will pay for single health insurance coverage for 2019.

Updating Policies: For the purpose of reflecting the workplace that we are and desire to be, we are examining our policies as a strategy to retain valued employees and attract qualified candidates to PWD. This is an interdepartmental process to streamline, consolidate, update, and segregate procedures from policies.

The Hiring Process: The hiring process will be examined and reviewed to diversify and increase our pool of qualified applicants, serve the needs of departments and to respond to a continuing tight labor market.

New streamlined Union Evaluation forms were devised to assist departments, and ensure compliance.

New field uniform options became available in 2018, and are well received by the employees.

Union:

- Union negotiations for the new three year contract began in September 2018.
- Monthly meetings with the Union stewards, with both the General Manager and the Director of Employee Services result in open communication that ranges from safe driving and taking direct routes, the request for more detailed grievance denials (which we agreed to do), safety, weather emergencies, grievance issues, the union compensation program, and policy changes.
- Arbitrations: In September 2017, we arbitrated the interpretation of the contract pertaining to pay upgrades and received a favorable decision. Guidelines resulting from this arbitration were shared throughout PWD. We have one more grievance regarding pay upgrades scheduled for September 2018.

Safety:

- We are revisiting the organization of the Safety Committee in an effort to further communicate and interact on the departmental level and include more employees.
- **New CDL Training Program** has begun that will continue into 2019 and includes:
 - **New Hire training:** classroom time on 7 topics within 30 days of hire, including driving safely, transporting cargo safely, air brakes, vehicle inspection, basic vehicle control skills, on the road driving. Home studies and hands-on training will also be included.
 - **First Six months with CDL** will include discussion of experiences, road observations with a trainer, and PWD vehicle inspections.
 - **PWD Inspection Checklist**, inspections at the beginning of shifts, and weekly audits.
- A Safety Audit of Cape Elizabeth was conducted in conjunction with Maine Municipal Association.

2018 SAFETY REQUIRED TRAINING - PWD			
Topic	# Employees	Completed	Compliant
Confined Space	12	May 2018 (6 more employees Nov 2018)	100%
Chemical Hygiene & Ethics		January 2018	
VDT On-Line	78	Month of April/May	95%
Fleet Driver Safety	80	Nov- Dec-Clark Insurance	
Respiratory Pro./Fit Testing	83	July 2018	99%
Fire Extinguishers	110	June 2018 – (17 hands on)	
Gas Detectors		January 2018	
Bloodborne Pathogens	98	February 2018	
First Aid CPR	72	March/Sept/Dec 2018	
Forklift	10	September 2018	

Past Accomplishments and 2019 Projects and Initiatives (continued)

Employee Services (continued)

2019 Projects and Initiatives

Wellness initiatives:

Flu shots, biometric screenings and diabetes awareness are some of the highlights of the successful annual wellness fair held in October 2018. We will be exploring more options for this well attended event for 2019.

Supervisory Workshops: Quarterly roundtable discussions continue, and in 2018 the following occurred as a result of these conversations:

- Employee Services incorporated a new checklist for separating employees;
- A new streamlined union evaluation form was developed and implemented;
- Upgrade pay was clarified for supervisors;
- Policies reviewed and revised.

Policies:

Review and revisions have begun and will continue into 2019.

Retirement Planning: The Summary Plan Descriptions for the Defined Benefit Plans will be updated and distributed and educational sessions will be provided to assist employees to better understand their payout/survivor benefit options, and how these options integrate with other income sources such as social security, and life insurance.

Safety:

Safety Training for 2019 is scheduled to include:

- Chemical Hygiene and Ethics
- Confined Space
- Respiratory/Fit Protection
- Fire Extinguishers
- Gas Detectors
- VDT Training
- Blood borne Pathogens
- Walking/Working Surfaces

Financial Overview

The Administrative Services budget request is \$5,821,457, which is \$183,577 or 3.3% higher than last year. The number of employees in the area is 42, the same as last year.

Customer Service (F1) Group (\$1,641,703 request; \$112,951 or 7.4% higher)

- Salaries/Wages and Benefits: Increased by \$11,167, or 1.0%. No changes in the number of employees. Assumed 3% wage increase and reflects the lower benefits budget.
- Contracted Services: Increased by \$95,270, or 55.2%. The first full year of maintenance of Cayenta billing system is included in the budget (\$90,000). Additionally, the Itron meter reading software contract expired (\$10,000).
- Other Expenses increased by \$9,972 or 4.7% - Result of increasing estimated postage for mailing bills \$9,521 assuming a 2.0 cent increase effective January 1, 2019.

Information Service (G1) Group (\$1,038,296 request; \$42,431 or 4.3% higher)

- Salaries/Wages and Benefits: Increased by \$16,731, or 2.2%. No changes in the number of employees. Assumed 3% wage increase and reflects the lower benefits budget.
- Contracted Services: Increased by \$24,000, or 11.5%. The first full year of hardware maintenance related to the new Cayenta's Asset, Billing and Customer Relation system is included in the budget (\$20,000).
- Materials and Supplies: Reduced by \$4,000, or 13.3%, due mostly to decrease costs related to expected use of computer toner and paper.
- Other Expenses: Increased by \$3,700, or 68.2%, due to planning to the national GMIS conference in 2019. Two staff members attend every other year.

Financial Services (H1) Group (\$907,940 request; \$7,580 or 0.8% higher)

- Salaries/Wages and Benefits: Decreased by \$2,955, or 0.4%. No changes in the number of employees. Due to staff turnover, new employee's starting pay was lower than the staff they replaced. Assumed 3% wage increase and reflects the lower benefits budget.
- Contracted Services: Increased by \$11,175, or 4.9%, due to expected 3% increase in computer system maintenance costs and the continued increase in the number of on-line payments.

Employee Service (I1) Group (\$487,698 request; \$1,074 or 0.2% lower)

- Salaries/Wages and Benefits: Increased by \$9,160, or 2.7%. No changes in the number of employees. Assumed 3% wage increase and reflects the lower benefits budget.
- Contracted Services: Decreased by \$10,000, or 8.3%, due to primarily to the lower amount for legal expenses planned in 2019.

Executive (J1) Group (\$1,745,850 request; \$21,689 or 1.3% higher)

- Salaries/Wages and Benefits: Increased by \$17,986, or 1.4%. No changes in the number of employees. Assumed 3% wage increase and reflects the lower benefits budget.
- Materials and Supply: Decreased by \$12,000, or 69%. Last year included one-time purchases for equipment needed for the new Asset, Billing and Customer Relation software team.
- Other Expenses: Increased by \$22,890. Most of the increase is including a higher contingency for special projects for the General Manager.

Administrative Services - Total

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
F1 - Customer Service	\$1,357,539	\$735,566	\$1,528,752	\$1,641,703	\$112,951	7.4%
G1 - Information Services	996,294	519,118	995,865	1,038,296	42,431	4.3%
H1 - Financial Services	835,265	485,810	900,360	907,940	7,580	0.8%
I1 - Employee Services	444,743	236,410	488,772	487,698	-1,074	-0.2%
J1 - BOT & Senior Management	1,586,172	740,006	1,724,131	1,745,820	21,689	1.3%
Grand Total	5,220,013	2,716,910	5,637,880	5,821,457	183,577	3.3%
Expense Type:						
Salaries & Wages	\$2,478,748	\$1,293,452	\$2,701,447	\$2,787,510	\$86,063	3.2%
Employee Benefits	1,345,095	688,652	1,432,366	1,398,392	-33,974	-2.4%
Contracted Services	789,089	420,212	828,709	944,604	115,895	14.0%
Insurance	88,055	41,681	89,262	89,355	93	0.1%
Materials & Supplies	95,564	38,925	69,890	51,230	-18,660	-26.7%
Other Expense	370,946	209,310	471,191	507,098	35,907	7.6%
Tele/Other Utilities	32,929	14,905	25,644	24,836	-808	-3.2%
Transportation	19,587	9,773	19,371	18,432	-939	-4.8%
Grand Total	5,220,013	2,716,910	5,637,880	5,821,457	183,577	3.3%
Headcount:						
Full Time	39	41	41	41	0	0.0%
Part Time	1	1	1	1	0	0.0%
Total	40	42	42	42	0	0.0%

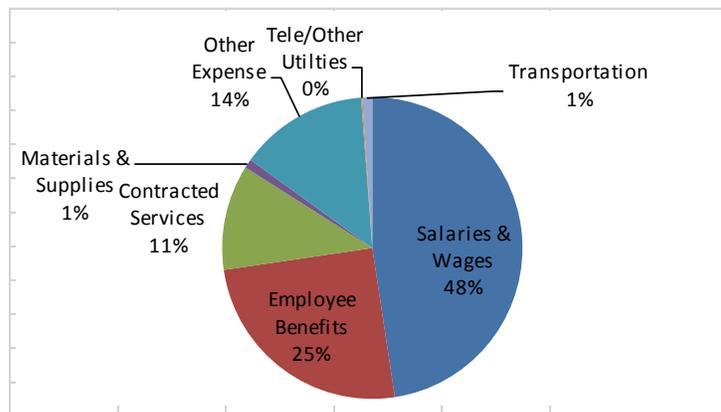
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$1,815,578	\$936,915	\$1,965,009	\$2,030,700	\$65,691	3.3%
660121 - WAGES/REGULAR UNION	582,089	339,626	686,574	705,703	19,129	2.8%
660122 - WAGES/OVERTIME UNION	12,773	3,565	21,864	23,107	1,243	5.7%
660123 - WAGES/DOUBLETIME UNION	39	-	-	-	-	n/a
660131 - WAGES - REGULAR - TEMPS	8,387	2,671	-	-	-	n/a
660136 - CONTRACTED - TEMP	3,565	-	1,000	1,000	-	0.0%
66014 - VACATION ACCRUAL	9,833	-	-	-	-	n/a
660141 - TRUSTEES COMPENSATION	19,625	10,675	27,000	27,000	-	0.0%
660112 - WAGES/OVERTIME NON-UNION	26,859	-	-	-	-	n/a
Salaries & Wages Total	2,478,748	1,293,452	2,701,447	2,787,510	86,063	3.2%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	188,731	98,653	206,587	213,170	6,583	3.2%
660405 - SAFETY/WHY PROGRAM ITEMS	5,265	2,787	5,990	5,940	(50)	-0.8%
660411 - MEALS ALLOWANCE	-	-	80	80	-	0.0%
660418 - STIPENDS	200	300	200	200	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	13,003	2,883	6,410	6,180	(230)	-3.6%
660491 - EE BENEFITS-REG/SAL	1,137,896	584,029	1,213,099	1,172,822	(40,277)	-3.3%
Employee Benefits Total	1,345,095	688,652	1,432,366	1,398,392	(33,974)	-2.4%
Contracted Services						
662062 - PRINTER REPAIR	-	-	500	-	(500)	-100.0%
662063 - COPIER MAINTENANCE/TONER	12,361	6,951	13,000	13,000	-	0.0%
6632 - ACCOUNTING SERVICES	35,875	35,000	35,000	35,500	500	1.4%
66331 - LEGAL - LABOR RELATIONS	56,333	42,186	100,000	85,000	(15,000)	-15.0%
66333 - BOND COUNSEL	7,890	-	7,500	7,500	-	0.0%
66339 - LEGAL - OTHER	46,322	8,427	34,500	34,500	-	0.0%
663545 - RADIO SERVICING AND EQUIP	5,344	3,427	3,000	3,500	500	16.7%
663561 - COMPUTER LICENSES	2,647	1,076	4,500	4,500	-	0.0%
663562 - COMPUTER MAINTAINENCE	212,002	141,419	223,275	342,350	119,075	53.3%
663563 - COMPUTER CONSULTING/OTHER	26,477	6,244	20,000	20,000	-	0.0%
6635801 - EMPLOYEE HEALTH SERVICES	11,447	4,934	10,000	10,000	-	0.0%
663581 - UTILITY BILLING PRINTING	90,172	36,013	79,504	81,094	1,590	2.0%
663582 - PAYMENT PROCESSING	144,513	75,139	142,000	150,215	8,215	5.8%
663583 - RECEIVABLE COLLECTIONS	7,481	6,171	9,000	10,000	1,000	11.1%
663584 - BANK SERVICE CHARGES	22,285	11,000	21,600	22,800	1,200	5.6%
663587 - COURIER SERVICES	4,363	2,195	4,480	4,740	260	5.8%
663588 - EQUIPMENT MAINTENANCE	-	-	1,500	1,500	-	0.0%
663592 - RECRUITING SERVICES	3,002	2,020	7,250	7,000	(250)	-3.4%
663594 - DIGSAFE	59,573	30,838	71,000	71,000	-	0.0%
663595 - OUTPLACEMENT SERVICES	-	-	2,000	1,000	(1,000)	-50.0%
663598 - HR CONSULTANT SERVICES	4,204	-	2,000	8,000	6,000	300.0%
6635984 - LANGUAGE INTERPRETATION	-	-	300	355	55	18.3%
663599 - MISC OTHER SERVICES	36,798	7,172	36,800	31,050	(5,750)	-15.6%
Contracted Services Total	789,089	420,212	828,709	944,604	115,895	14.0%
Insurance						
6657 - GEN LIABILITY INSURANCE	50,264	25,507	49,419	55,966	6,547	13.2%
66592 - DAMAGES & CLAIMS-GOODWILL	3,762	1,880	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	3,083	1,556	3,074	3,362	288	9.4%
66594 - PROFESSION/CRIME BONDING	30,946	12,738	32,769	26,027	(6,742)	-20.6%
Insurance Total	88,055	41,681	89,262	89,355	93	0.1%

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Materials & Supplies						
6619 - ASSET PURCHASES	\$5,491	\$424	\$8,000	\$5,000	(\$3,000)	-37.5%
66202 - TOOLS	91	65	300	300	-	0.0%
66203 - VENDOR PURCHASED SUPPLIES	3,100	841	2,600	3,100	500	19.2%
662041- MATERIALS INVENTORY	1,224	210	-	-	-	n/a
662042 - SUPPLIES INVENTORY	1,067	1,603	2,600	2,400	(200)	-7.7%
662043 - TOOL INVENTORY	11,618	3,484	3,625	2,650	(975)	-26.9%
66204301- INVENTORY - TONER	4,783	298	3,000	1,000	(2,000)	-66.7%
66204302 - INVENTORY - PAPER	3,055	1,275	4,000	2,000	(2,000)	-50.0%
66204303 - INVENTORY - COMPUTER EQUI	4,625	2,851	9,175	7,140	(2,035)	-22.2%
662047 - GARAGE INVENTORY	19	13	-	-	-	n/a
66205 - CONSUMABLE SUPPLIES	2,476	755	3,450	2,700	(750)	-21.7%
66206 - COMPUTER RELATED EQUIP	58,015	27,106	33,140	24,940	(8,200)	-24.7%
Materials & Supplies Total	95,564	38,925	69,890	51,230	(18,660)	-26.7%
Other Expense						
6642 - EQUIPMENT RENT	2,892	1,446	2,900	2,900	-	0.0%
66601- PUBLIC RELATIONS	903	1,479	2,000	5,250	3,250	162.5%
66609 - OTHER ADVERTISING	19,640	11,300	10,900	6,500	(4,400)	-40.4%
6675111- INSTATE TRAINING/CONF	10,172	5,804	20,400	20,000	(400)	-2.0%
6675112 - OUT OF STATE TRAINING/CON	11,373	6,523	20,500	20,500	-	0.0%
6675122 - OUT-OF- STATE CONFERENCE	1,993	-	-	3,500	3,500	n/a
667513 - DUES	42,128	11,667	50,445	53,015	2,570	5.1%
667514 - PROFESSIONAL LICENSES	575	365	900	900	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	5,966	2,753	5,485	6,675	1,190	21.7%
667521- POSTAGE - THIRD PARTY	188,263	115,349	210,596	221,027	10,431	5.0%
667522 - POSTAGE - INTERNAL	12,245	6,570	15,300	15,191	(109)	-0.7%
667523 - POSTAGE - EXPRESS DELIVER	629	337	350	400	50	14.3%
667531- PRINTING COSTS	22,770	16,389	33,050	34,850	1,800	5.4%
667533 - FORMS STOCK	730	-	900	925	25	2.8%
667552 - SAFETY TRAINING	-	2,654	3,000	3,000	-	0.0%
667553 - DOT SUBSTANCE ABUSE	1,205	820	2,000	2,000	-	0.0%
667555 - SAFETY EXPENSES	4,115	3,392	5,000	5,000	-	0.0%
667592 - FOOD SUPPLIES	5,389	701	4,900	3,700	(1,200)	-24.5%
667598 - GEN MANAGER CONTINGENCY	18,634	-	45,000	61,500	16,500	36.7%
6675981 - GEN MNG - TRUSTEES	16,238	6,039	10,950	11,550	600	5.5%
6675982 - GEN MNG - COMMUNITY	(2,660)	14,920	25,115	27,215	2,100	8.4%
667599 - OTHER MISCELLANEOUS	7,746	802	1,500	1,500	-	0.0%
Other Expense Total	370,946	209,310	471,191	507,098	35,907	7.6%
Tele/Other Utilities						
66112 - DATA LINES	20,759	9,261	14,940	14,760	(180)	-1.2%
66113 - CELLULAR PHONES	12,074	5,644	10,608	9,980	(628)	-5.9%
66114 - PAGERS	96	-	96	96	-	0.0%
Tele/Other Utilities Total	32,929	14,905	25,644	24,836	(808)	-3.2%
Transportation						
66501- TRANSPORTATION - INTERNAL	11,409	5,478	11,583	9,170	(2,413)	-20.8%
665019 - TRANS INTERNAL INACTIVE	4,717	2,961	3,763	5,547	1,784	47.4%
66502 - TRANSPORTATION - EXTERNAL	919	361	850	850	-	0.0%
66503 - MILEAGE REIMBURSEMENT	2,542	973	3,175	2,865	(310)	-9.8%
Transportation Total	19,587	9,773	19,371	18,432	(939)	-4.8%
Grand Total	5,220,013	2,716,910	5,637,880	5,821,457	183,577	3.3%

Administrative Services: Customer Services (F1)

Financial Summary:

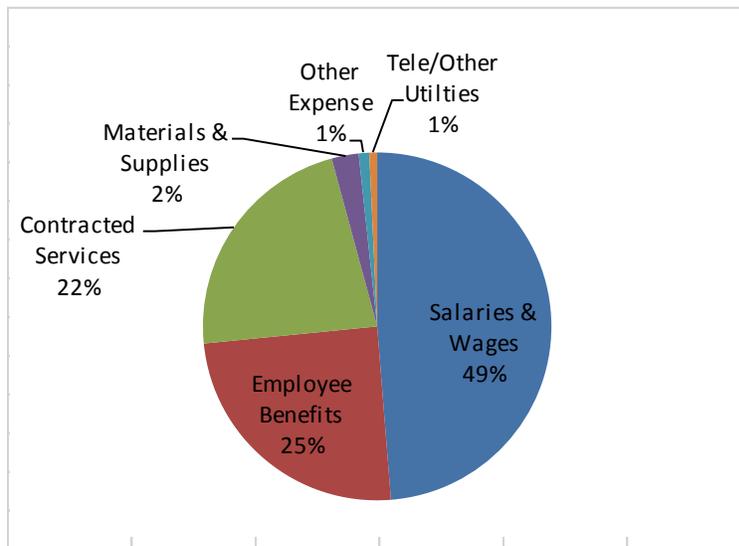
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$631,732	\$356,132	\$727,653	\$748,695	\$21,042	2.9%
Employee Benefits	341,453	188,687	383,384	373,509	-9,875	-2.6%
Contracted Services	168,645	73,400	172,679	267,949	95,270	55.2%
Materials & Supplies	12,454	2,672	14,890	11,965	-2,925	-19.6%
Other Expense	184,808	105,414	211,796	221,768	9,972	4.7%
Tele/Other Utilities	1,563	812	2,004	2,100	96	4.8%
Transportation	16,884	8,449	16,346	15,717	-629	-3.8%
Grand Total	1,357,539	735,566	1,528,752	1,641,703	112,951	7.4%
Programs:						
74 - Control Center	181,878	89,376	184,727	186,011	1,284	0.7%
76 - Collection	54,246	30,388	59,808	60,054	246	0.4%
77 - Billing	271,467	139,355	301,376	402,858	101,482	33.7%
80 - Meter Reading	79,940	40,434	77,079	79,634	2,555	3.3%
98 - Training	42,766	57,738	58,153	58,810	657	1.1%
99 - Administration	727,242	378,275	847,609	854,336	6,727	0.8%
Grand Total	1,357,539	735,566	1,528,752	1,641,703	112,951	7.4%
Funds:						
10 - General	1,303,293	705,178	1,468,944	1,581,649	112,705	7.7%
20 - Water General	34,156	19,797	36,268	37,368	1,100	3.0%
30 - Water Standish	1,465	1,019	1,820	1,769	-51	-2.8%
51 - WW Cape Elizabeth	1,273	649	1,266	1,218	-48	-3.8%
53 - WW Cumberland	609	316	442	415	-27	-6.1%
54 - WW Falmouth	839	375	637	595	-42	-6.6%
57 - WW Portland	7,741	4,029	10,501	10,197	-304	-2.9%
59 - WW South Portland	3,659	1,912	4,306	4,079	-227	-5.3%
61 - WW Gorham	1,430	523	1,144	1,091	-53	-4.6%
62 - WW Westbrook	3,074	1,768	3,424	3,322	-102	-3.0%
Grand Total	1,357,539	735,566	1,528,752	1,641,703	112,951	7.4%
Headcount:						
Full-Time	13	14	14	14	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	13	14	14	14	0	0.0%



Administrative Services: Information Services (G1)

Financial Summary:

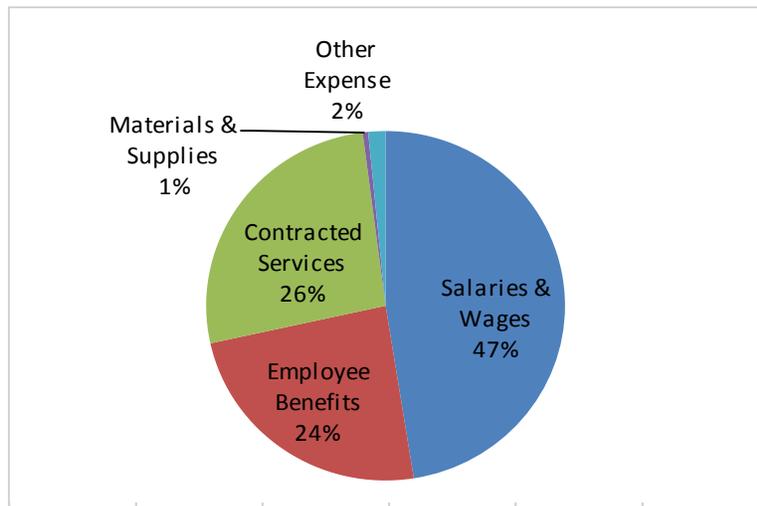
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$453,604	\$239,939	\$485,224	\$506,043	\$20,819	4.3%
Employee Benefits	250,247	128,560	260,430	256,342	-4,088	-1.6%
Contracted Services	207,320	109,735	208,250	232,250	24,000	11.5%
Materials & Supplies	60,416	30,991	30,000	26,000	-4,000	-13.3%
Other Expense	9,533	858	5,425	9,125	3,700	68.2%
Tele/Other Utilities	14,439	8,391	6,036	7,536	1,500	24.9%
Transportation	735	644	500	1,000	500	100.0%
Grand Total	996,294	519,118	995,865	1,038,296	42,431	4.3%
Programs:						
98 - Training	61,748	54,579	32,128	36,294	4,166	13.0%
99 - Administration	934,546	464,539	963,737	1,002,002	38,265	4.0%
Grand Total	996,294	519,118	995,865	1,038,296	42,431	4.3%
Funds:						
10 - General	996,294	519,118	995,865	1,038,296	42,431	4.3%
Grand Total	996,294	519,118	995,865	1,038,296	42,431	4.3%
Headcount:						
Full-Time	7	7	7	7	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	7	7	7	7	0	0.0%



Administrative Services: Financial Services (H1)

Financial Summary:

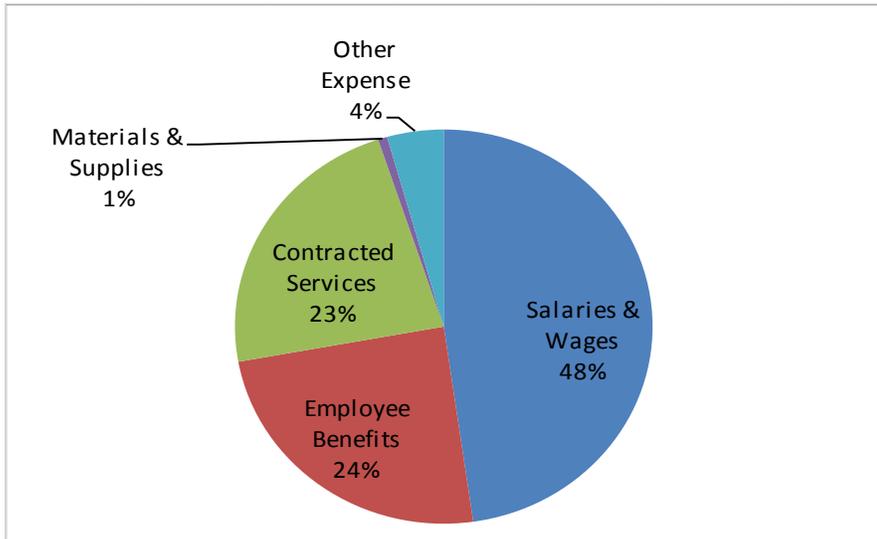
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$376,746	\$207,874	\$424,687	\$431,142	\$6,455	1.5%
Employee Benefits	210,909	111,798	227,893	218,483	-9,410	-4.1%
Contracted Services	229,861	159,176	228,580	239,755	11,175	4.9%
Materials & Supplies	7,976	3,639	4,475	4,440	-35	-0.8%
Other Expense	9,723	3,280	14,450	13,845	-605	-4.2%
Transportation	50	43	275	275	0	0.0%
Grand Total	835,265	485,810	900,360	907,940	7,580	0.8%
Programs:						
77 - Billing	182,238	90,771	176,164	186,132	9,968	5.7%
98 - Training	38,656	6,976	27,889	27,352	-537	-1.9%
99 - Administration	614,371	388,063	696,307	694,456	-1,851	-0.3%
Grand Total	835,265	485,810	900,360	907,940	7,580	0.8%
Funds:						
10 - General	782,672	446,396	821,255	828,479	7,224	0.9%
20 - Water General	52,593	39,414	79,105	79,461	356	0.5%
Grand Total	835,265	485,810	900,360	907,940	7,580	0.8%
Headcount:						
Full-Time	8	8	8	8	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	8	8	8	8	0	0.0%



Administrative Services: Employee Services (I1)

Financial Summary:

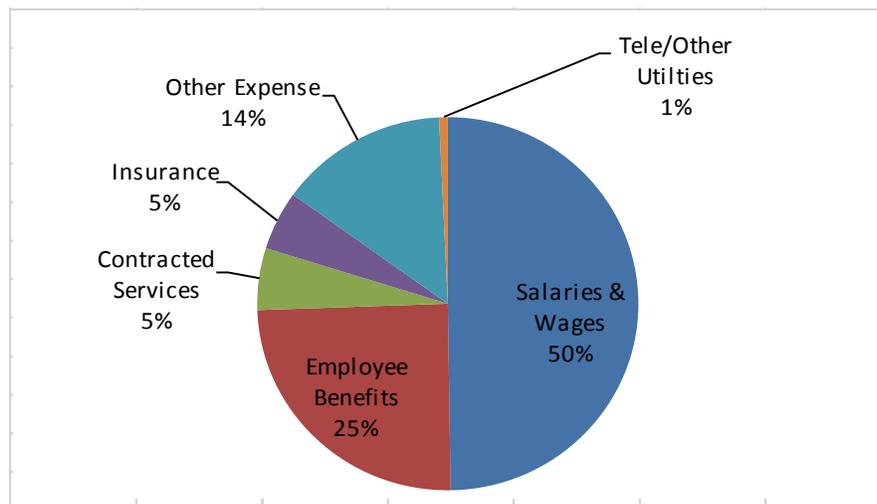
	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$229,303	\$112,549	\$222,609	\$232,837	\$10,228	4.6%
Employee Benefits	120,182	61,910	120,069	119,001	-1,068	-0.9%
Contracted Services	77,370	49,185	121,000	111,000	-10,000	-8.3%
Materials & Supplies	2,293	455	3,200	3,500	300	9.4%
Other Expense	13,366	11,211	18,550	18,500	-50	-0.3%
Tele/Other Utilities	2,083	1,037	2,844	2,360	-484	-17.0%
Transportation	146	63	500	500	0	0.0%
Grand Total	444,743	236,410	488,772	487,698	-1,074	-0.2%
Programs:						
98 - Training	16,702	8,604	16,674	17,321	647	3.9%
99 - Administration	428,041	227,806	472,098	470,377	-1,721	-0.4%
Grand Total	444,743	236,410	488,772	487,698	-1,074	-0.2%
Funds:						
10 - General	444,743	236,410	488,772	487,698	-1,074	-0.2%
Grand Total	444,743	236,410	488,772	487,698	-1,074	-0.2%
Headcount:						
Full-Time	3	3	3	3	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	3	3	3	3	0	0.0%



Administrative Services: Executive (I1)

Financial Summary:

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$787,363	\$376,958	\$841,274	\$868,793	\$27,519	3.3%
Employee Benefits	422,304	197,697	440,590	431,057	-9,533	-2.2%
Contracted Services	105,893	28,716	98,200	93,650	-4,550	-4.6%
Insurance	88,055	41,681	89,262	89,355	93	0.1%
Materials & Supplies	12,425	1,168	17,325	5,325	-12,000	-69.3%
Other Expense	153,516	88,547	220,970	243,860	22,890	10.4%
Tele/Other Utilities	14,844	4,665	14,760	12,840	-1,920	-13.0%
Transportation	1,772	574	1,750	940	-810	-46.3%
Grand Total	1,586,172	740,006	1,724,131	1,745,820	21,689	1.3%
Programs:						
5 - Public Relations	163,126	86,985	177,221	172,611	-4,610	-2.6%
98 - Training	42,800	42,785	74,019	74,717	698	0.9%
99 - Administration	1,380,246	610,236	1,472,891	1,498,492	25,601	1.7%
Grand Total	1,586,172	740,006	1,724,131	1,745,820	21,689	1.3%
Funds:						
10 - General	1,537,101	715,682	1,678,631	1,677,720	-911	-0.1%
20 - Water General	34,297	21,097	45,500	68,100	22,600	49.7%
50 - Wastewater General	70	0	0	0	0	n/a
57 - WW Portland	14,704	3,227	0	0	0	n/a
Grand Total	1,586,172	740,006	1,724,131	1,745,820	21,689	1.3%
Headcount:						
Full-Time	8	9	9	9	0	0.0%
Part-Time	1	1	1	1	0	0.0%
Total	9	10	10	10	0	0.0%



Non-Departmental

Non-Department expenses are expenses that are not specifically assigned to a department. Other expenses include Public Utilities Commission's assessment, real estate taxes assessed by the Town of Standish and Bad Debt write-off.

	2017 Actual	2018 Jan-Jun	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Contracted Services						
663599 - MISC OTHER SERVICES	-	8,357	-	-	-	n/a
Contracted Services Total	-	8,357	-	-	-	n/a
Other Expense						
6670 - BAD DEBT EXPENSE	17,263	16,200	32,400	30,000	(2,400)	-7.4%
667561 - WATERSHED GRANTS/SUPPORT	56,080	-	-	-	-	n/a
6675611 - GRANTS - PASS-THROUGH	22,812	-	-	-	-	n/a
6706 - AMORT OF U P ACQ ADJUSTS	17,000	8,500	17,000	17,000	-	0.0%
Other Expense Total	113,155	24,700	49,400	47,000	(2,400)	-4.9%
Regulatory/Taxes						
670821 - STANDISH REAL ESTATE TAX	42,655	25,424	46,350	47,800	1,450	3.1%
670822 - OTHER R/E TAX(NON-STANDI)	7,627	5,000	7,750	8,000	250	3.2%
670823 - PUC ASSESSMENT	77,297	85,583	78,700	79,500	800	1.0%
670824 - ME DRINKING WTR PROGRAM	75,569	82,438	68,665	68,665	-	0.0%
670825 - PUC PUBLIC ADVOCATE	2,737	-	15,000	10,000	(5,000)	-33.3%
Regulatory/Taxes Total	205,885	198,445	216,465	213,965	(2,500)	-1.2%
Grand Total	319,040	231,502	265,865	260,965	(4,900)	-1.8%

The District pays (670821 – Standish Real Estate Tax) real estate taxes. Real estate charges in other municipalities are paid using account 670822 – Other R/E Tax (Non-Standish).

The District also pays annual assessments to the Maine Public Utility Commission (PUC) and the Maine Drinking Water Program. The PUC assessment has two components – general assessment (670823 – PUC Assessment) and public advocacy (670825 – PUC Public Advocate). The PUC bases the general assessment on the utility's size and the amount of time the Commission spends in each industry sector. The assessment from the Drinking Water Program (670824 – ME Drinking WTR Program) is based on population served.

Community *Connections*

The Portland Water District is proud to serve the public. As an integral part of the community, we strive to support various causes aligned with our company values and vision.

2 \$1,500 DiPietro

Memorial Scholarships



In 2018, two scholarships were awarded, one to Emily Wilson of Gorham and one to David Grondin of Westbrook. Both are students at the Southern Maine Community College.

Environmental Education



Through our environmental education program, we connect with thousands of students-- teaching about our water resources and encouraging stewardship. The program is active in area schools but also routinely offers fun and interactive activities and events throughout the year.

Lifeline Water Rates and a Home Plumbing Assistance Program

PWD offers qualified residential customers discounted lifeline water rates and a conservation program which is now administered through the City of Portland. The program assists Portland Water District customers make repairs to their home plumbing systems and install water efficient devices. Efficient home plumbing systems minimize water waste and saves homeowners money.

Annual Charity Golf Classic

Thanks to all the generous sponsors, participants, and volunteers, the Portland Water District's 17th Annual Charity Golf Classic raised nearly \$8,500 for Make-A-Wish Maine, STRIVE, and the Barbara Bush Children's Hospital.

Water Bottle Filling Fountain Grants

The Board of Trustees awarded six grants in 2018: City of Portland, Longfellow Elementary School, James Otis Kaler Elementary School, Greely Middle School, Pond Cove Elementary, Gorham Middle School.



Portable Potable Water

The Portland Water District provides various potable water solutions for community events including a portable water fountain, igloo containers, eco cups, and reusable water bottles.



Introduction

Total salaries, wages and benefits budget for 2019 is \$17,448,402. This is 2.2% higher than the 2018 budget.

Total Labor & Benefits (O&M and Capital):

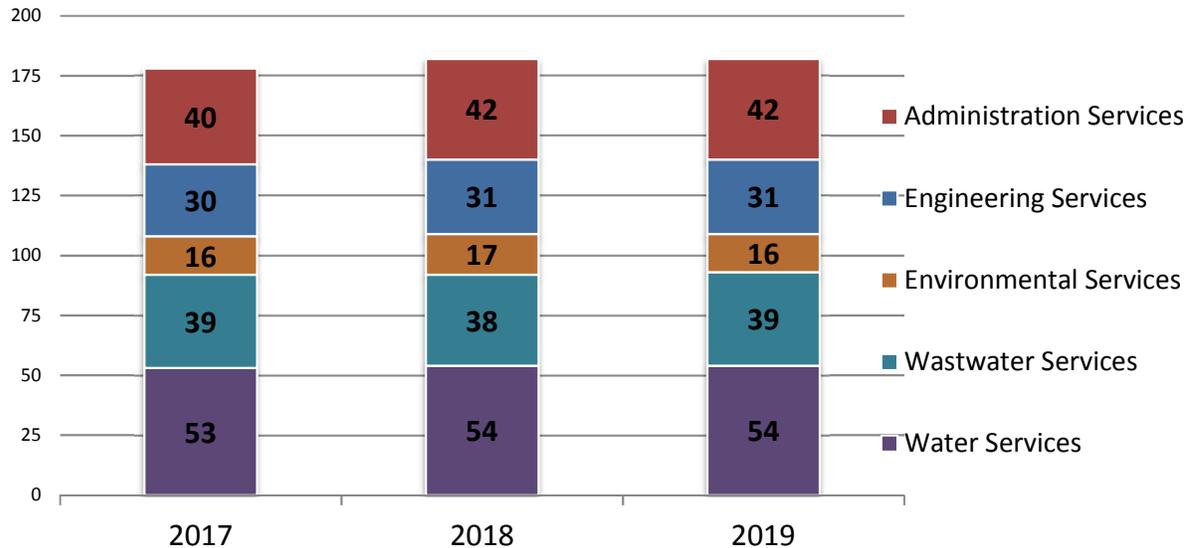
	2017 Actual	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages	\$10,550,726	\$11,441,313	\$11,900,627	\$459,314	4.0%
Employee Benefits	5,358,649	5,676,072	5,587,775	-\$88,297	-1.6%
Actual	15,909,375	17,117,385	17,488,402	371,017	2.2%

Employees record their labor hours by specific water and wastewater operating funds and capital projects. Benefits are allocated based on the labor dollars to the funds. It is estimated staff will allocate \$560,010 in labor/benefits to capital projects in 2019; which is \$24,207 (2.7%) higher than the 2018 budget.

	2017 Actual	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Operations & Maintenance	\$15,530,168	\$16,581,582	\$16,928,392	\$346,810	2.1%
Capital	379,207	535,803	560,010	24,207	4.5%
Actual	15,909,375	17,117,385	17,488,402	371,017	2.2%

Total Employee Positions:

Authorized positions remained at 182.



Salary Costs

The Budget for total labor costs will increase by 4.0% (\$459,314).

The budget assumed pay rates would be 3.0% higher than the rates paid on July 1, 2018 and that the District headcount would remain at 182.

Operating labor will increase 3.9% while capital labor will increase 6.4% as the ratio of operating/ capital labor goes from 96.8%/3.2% in 2018 to 96.7%/3.3% in 2019.

Total Labor (O&M and Capital) by Type:

	2017 Actual	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$9,631,385	\$10,500,416	\$10,914,037	\$413,621	3.9%
Overtime	520,462	535,595	583,593	47,998	9.0%
Doubletime	58,394	53,518	62,170	8,652	16.2%
Standby	144,573	131,996	137,677	5,681	4.3%
Premium Time/Standby	723,429	721,109	783,440	62,331	8.6%
Trustee Compensation	19,625	27,000	27,000	0	0.0%
District Employed Temps	172,721	151,788	171,150	19,362	12.8%
Agency Temps	3,565	41,000	5,000	-36,000	-87.8%
Temporary Employees	176,286	192,788	176,150	-16,638	-8.6%
Total Labor Cost	10,550,726	11,441,313	11,900,627	459,314	4.0%

Total Labor Broken Out by O&M and Capital:

	2017 Actual	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Operating Expense	\$10,288,093	\$11,072,086	\$11,507,789	\$435,703	3.9%
Capital Expenditures	262,633	369,227	392,838	23,611	6.4%
	10,550,726	11,441,313	11,900,627	459,314	4.0%
Operating Expense	97.5%	96.8%	96.7%		
Capital Expenditures	2.5%	3.2%	3.3%		
	100.0%	100.0%	100.0%		

Labor Hours/Average Pay Rates

Budgeted hours for the 2019 Budget were up by 865 hours or 0.2%. Regular time increased 520 hours as the Industrial Pre-Treatment position that budgeted for three quarters of the year was budgeted for all of 2019. Premium Time/Standby hours increased (3.6%) to reflect current trends while Temporary Employee hours were reduced 3.2% (417 hours).

Total Labor (O&M and Capital) Hours by Type:

	2017 Actual	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	354,421	377,000	377,520	520	0.1%
Overtime	14,467	14,730	15,408	678	4.6%
Doubletime	1,117	1,078	1,202	124	11.5%
<u>Standby</u>	<u>5,659</u>	<u>5,535</u>	<u>5,495</u>	<u>(40)</u>	<u>-0.7%</u>
Premium Time/Standby	21,243	21,343	22,105	762	3.6%
District Employed Temps	12,438	10,842	12,225	1,383	12.8%
<u>Agency Temps</u>	<u>178</u>	<u>2,050</u>	<u>250</u>	<u>(1,800)</u>	<u>-87.8%</u>
Temporary Employees	12,616	12,892	12,475	(417)	-3.2%
	388,280	411,235	412,100	865	0.2%

Labor Rates by Type:

On average pay rates were increased 3.8%. Changes to overtime, double-time and standby varied due to shifts in personnel budgeted to cover those hours. Temporary Employee rates are flat. Please note that the rates for Agency Temps are higher because the agencies must cover costs such as FICA and workers compensation.

	2017 Actual	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$27.17	\$27.85	\$28.91	\$1.06	3.8%
Overtime	35.98	36.36	37.88	1.52	4.2%
Doubletime	52.28	49.65	51.72	2.07	4.2%
<u>Standby</u>	<u>25.55</u>	<u>23.85</u>	<u>25.05</u>	<u>1.20</u>	<u>5.0%</u>
Premium Time/Standby	34.05	33.79	35.44	1.65	4.9%
District Employed Temps	13.89	14.00	14.00	0.00	0.0%
<u>Agency Temps</u>	<u>20.03</u>	<u>20.00</u>	<u>20.00</u>	<u>0.00</u>	<u>0.0%</u>
Temporary Employees	13.97	14.95	14.12	-0.83	-5.6%
	27.17	27.82	28.88	1.06	3.8%

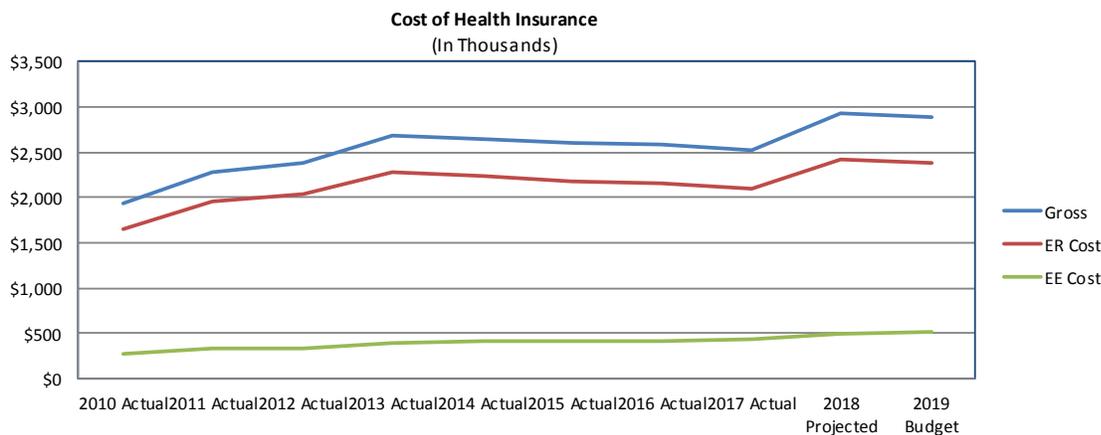
Employee Benefits

In order to qualify for benefits, employees must work more than 20/24 hours/week (non-union/union). Seasonal or temporary employees are monitored for eligibility as required under ACA, but in general do not qualify for benefits. Benefits are charged to departments as a percentage of the regular non-premium pay. In 2019, the benefits percentage decreased from 45.75% to 42.86% due primarily to overall pension costs decreasing \$263,449 or 14.1%.

Health Insurance

Based on recent claims experience for the health plan, the District was able to limit the renewal rate increase to 3.0% for calendar year 2019. The 2019 Budget for Health Insurance is \$2,400,383. This is a decrease of \$47,617 (-1.9%) from the prior year’s budget. The 2018 Budget assumed a 10.0% increase in rates; the actual increase was 6.3%.

The 2018 Budget assumed the District would pay 92% of an employee’s health insurance premiums and 70% of the premiums for dependents. The 2019 Budget assumes a reduction in the employee coverage to 91% while keeping the dependent percentage the same. The result, when combined with other factors such as changes to employee plans (single, employee with children, employee and spouse only for family plans) resulted in an increase in total employee contributions of \$4,010 (0.8%) to \$510,610.



The District makes health insurance coverage available to regular employees who work over 20 hours per week (24 hours per week for Union employees). The medical cost for part-time employees is pro-rated based on hours worked. The District provides \$30/week to any employee who is insured outside the District. The Budget assumed six positions will be vacant:

Year	Insured	Non-Insured	Total
2018	167	9	176
<u>2019</u>	<u>168</u>	<u>8</u>	<u>176</u>
Change	+1	-1	0

Employee Benefits (continued)

Pension

Pension related expenses are \$1,603,274 in the 2019 Budget. The District offers employees a defined benefit plan and a deferred compensation plan.

The defined benefit plan’s contributions in the 2019 Budget decreased \$301,674 (21.3%) to \$1,112,774. This contribution is consistent with the Board adopted long-term funding policy and represents the amount calculated by the District’s actuary as of May 1, 2018. The decline is primarily due to the better than expected investment returns. The plan is solely funded by the District without any employee contributions.

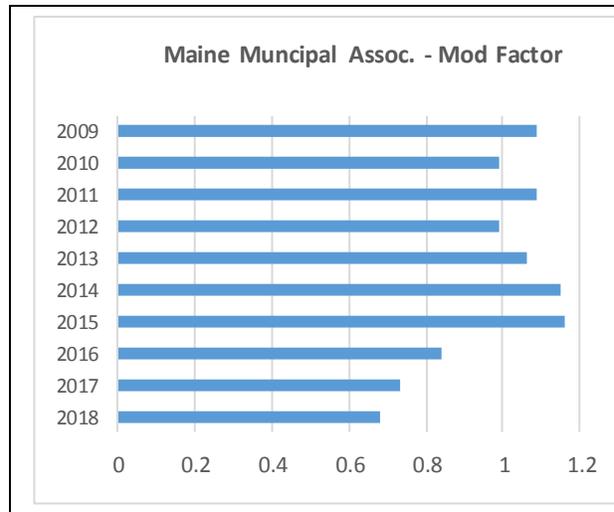
In addition, the deferred compensation plan for Union employees hired prior to 2011, and Non-Union employees hired prior to 2012, will fully match employee contributions up to \$1,225 annually. This cost has been budgeted at \$112,000 for 2019, a decrease of \$14,175 (11.2%).

New Union employees hired during or after 2011, and Non-Union employees hired during or after 2012, are enrolled in the deferred compensation plan only. The plan requires employees to contribute 3.0% of their pay which the District matches at a rate of 150%. Effective April 4, 2016, the District matches up to 4.5% of their pay, with employee contributions above 3% remaining voluntary. The expense for the match is budgeted at \$300,000 for 2019, an increase of \$110,000 (57.9%).

Workers Compensation

The District participates in the Maine Municipal Association’s workers’ compensation program. The premium assessed is based on amount of wages and a claim experience factor. In 2018, the “Mod” factor of 0.73 was lowered to 0.68, the lowest it has been over the 10-year average of 0.978. This is the direct result of older claims dropping off the experience rating, active claims management, increased baseline examination for injuries and accident investigations. The “Mod” factor will increase to 0.95 as of January 1, 2019 due to a few recent high cost injuries.

The 2019 Budget is \$224,000 with a deductible cost of \$9,000 resulting in a total budget of \$233,000.



Other Benefits

Other benefits which include dental, uniforms, unemployment, long-term disability, life insurance and a contingency for higher benefit costs total \$441,096.

Employee Benefits (continued)

	2017 Actual	2018 Budget	2019 Budget	Budget Diff \$	Budget Diff %
Health Insurance:					
6604041 - HEALTH INSURANCE-EMPLOYEE	2,549,968	2,940,100	2,898,513	(41,587)	-1.4%
66040419 - HEALTH INSUR - EE CONTRIB	(443,177)	(506,600)	(510,610)	(4,010)	0.8%
6604042 - HEALTH INSURANCE-RETIREES	(586)	-	-	-	n/a
6604043 - MEDICAL INSURANCE PAYOUT	12,630	14,500	12,480	(2,020)	-13.9%
	2,118,835	2,448,000	2,400,383	(47,617)	-1.9%
Pension:					
66040611 - PEN EXP - DEFINED BENEFIT	101,793	101,100	43,500	(57,600)	-57.0%
66040612 - PEN EXP - DEFER COMP 457	6,000	25,000	25,000	-	0.0%
6604062 - PENSION CONTRIBUTION	1,583,014	1,414,448	1,112,774	(301,674)	-21.3%
6604063 - DEF COMP MANDATORY	213,016	190,000	300,000	110,000	57.9%
6604064 - DEF COMP ELECTIVE	126,725	126,175	112,000	(14,175)	-11.2%
6604065 - PENSION LEGAL EXPENSE	6,634	10,000	10,000	-	0.0%
	2,037,182	1,866,723	1,603,274	(263,449)	-14.1%
Workers Compensation:					
660409 - WORKERS' COMPENSATION	163,428	195,000	224,000	29,000	14.9%
6604091 - WORKES COMP DEDUCTABLE	12,556	9,000	9,000	-	0.0%
	175,984	204,000	233,000	29,000	14.2%
Other Benefits:					
66025 - BENEFITS CONTINGENCY	-	27,602	182,500	154,898	561.2%
660402 - LONG-TERM DISABILITY	26,106	27,000	28,000	1,000	3.7%
660403 - LIFE INSURANCE	18,713	20,000	22,000	2,000	10.0%
660407 - EDUCATION SUBSIDY	9,008	11,000	11,000	-	0.0%
660408 - PROGRAMS ADMINISTRATION	6,853	10,000	15,000	5,000	50.0%
660410 - UNEMPLOYMENT COMPENSATION	21,284	15,000	20,000	5,000	33.3%
660413 - PWD TRAINING PROGRAM	44	5,000	5,000	-	0.0%
6604151 - FIELD UNIFORMS	37,943	34,850	35,450	600	1.7%
6604152 - OFFICE CLOTHING	5,453	7,200	7,200	-	0.0%
660416 - DENTAL COVERAGE	51,210	60,000	63,000	3,000	5.0%
660417 - WELLNESS PROGRAM	275	2,500	2,500	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	25,227	26,000	34,900	8,900	34.2%
660420 - WORKFORCE PLANNING	-	1,000	1,000	-	0.0%
660421 - POST RETIREMENT BENEFITS	12,453	24,057	-	(24,057)	-100.0%
660422 - ACTUARY NON-PENSION	-	2,500	2,500	-	0.0%
663592 - RECRUITING SERVICES	7,847	10,000	10,000	-	0.0%
66595 - INDENTITY FRAUD INSURANCE	1,067	1,067	-	(1,067)	-100.0%
667592 - FOOD SUPPLIES	24	-	1,067	1,067	n/a
667599 - OTHER MISCELLANEOUS	197	451	(21)	(472)	-104.7%
	223,704	285,227	441,096	155,869	54.6%
Total Employee Benefits	4,555,706	4,803,950	4,677,753	(126,197)	-2.6%
660401 - FICA - EMPLOYERS' SHARE	802,943	872,122	910,022	37,900	4.3%
Total Costs	5,358,649	5,676,072	5,587,775	(88,297)	-1.6%
Total Regular Labor (Benefits Basis)	9,595,318	10,500,418	10,914,037	413,619	3.9%
Benefit Rate	47.48%	45.75%	42.86%	-2.89%	-6.3%
Total Rate (with FICA of 7.65%)	55.13%	53.40%	50.51%	-2.89%	-5.4%

Note: The total employee benefits expense above (\$5,587,775) does not include \$99,806 in employee benefits charged directly to departments. With these costs, the District's benefits cost is \$5,687,581.

Authorized Headcount

The overall headcount was flat at 182.

- One (1) new positions is **proposed**: Associate Engineer.
- One (1) position was **eliminated**: Environmental Scientist.

In addition the following positions were **reclassified**: An Asset Management Program Manger replaced an Asset Analyst and a Wastewater System Maintenance/Operator replaced Wastewater Maintenance Operator.

	2017 Budget	2018 Budget	2019 Budget	Change
Water Services				
A1 - Water Administration	5	5	5	0
A2 - Wtr Transmission/Distrib	22	22	22	0
A3 - Water Treatment	11	11	11	0
A6 - Water Utility Services	<u>15</u>	<u>16</u>	<u>16</u>	<u>0</u>
	53	54	54	0
Wastewater Services				
B1 - Wastewater Administration	1	2	3	1
B3 - Wastewater Treatment	25	23	23	0
L9 - Wastewater Systems	<u>13</u>	<u>13</u>	<u>13</u>	<u>0</u>
	39	38	39	1
Environmental Services				
A5 - Water Resources	9	9	9	0
L6 - Water/WW Laboratory	<u>7</u>	<u>8</u>	<u>7</u>	<u>-1</u>
	16	17	16	-1
Engineering Services				
C1 - Facilities Services	10	10	10	0
E2 - Asset Engineering	16	18	18	0
E7 - Instrumentation	<u>4</u>	<u>3</u>	<u>3</u>	<u>0</u>
	30	31	31	0
Administration				
F1 - Customer Service	13	14	14	0
G1 - Information Services	7	7	7	0
H1 - Financial Services	8	8	8	0
I1 - Employee Services	3	3	3	0
J1 - BOT & Senior Management	<u>9</u>	<u>10</u>	<u>10</u>	<u>0</u>
	40	42	42	0
	178	182	182	0

Non-Union Positions

The overall Non-Union headcount increased from 59 to 60. The table below shows the requested Non-Union positions by pay range. The Job Class Code (JCC) is in parentheses:

<u>Range 1 (\$37,700 to \$56,600)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>	<u>Range 4 (\$67,300 to \$100,900)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
Executive Admin Asst (5010)	1	1	0	Director of Customer Ser (9006)	1	1	0
General Accounting Asst (5028)	<u>1</u>	<u>1</u>	<u>0</u>	Director of Finance Serv (9008)	1	1	0
	2	2	0	Dist Sys Manager - Water (9014)	1	1	0
				Eng/Asset Mgmt Srv Mngr (9031)	1	1	0
				Environmental Srv Manager (9020)	1	1	0
<u>Range 2 (\$48,100 to \$72,100)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>	Information Srvs Manager (9010)	1	1	0
Asset Analyst (9043)	1	0	-1	Senior Project Engineer (9045)	3	3	0
BSA - GIS (5022)	1	1	0	Project Manager - Admin (9047)	<u>1</u>	<u>1</u>	<u>0</u>
Business Systems Analyst (9501)	1	1	0		10	10	0
Chief of Security Oper (1069)	1	1	0				
Associate Engineer (5023)	2	3	1	<u>Range 5 (\$75,400 to \$113,200)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
Environmental Educ Coord (5017)	1	1	0	Director of Opr Srvs (9011)	2	2	0
ES Conslt Safety/Training (5004)	1	1	0	Exec Director of EE Srvs (9007)	<u>1</u>	<u>1</u>	<u>0</u>
ES Consultant Employment (5003)	1	1	0		3	3	0
Financial Analyst (5020)	2	2	0				
Industrial Pretreatment Scientist (5035)	1	1	0	<u>Range 6 (\$84,900 to \$127,200)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
Network Admin I (9503)	1	1	0	Corporate Counsel (9035)	1	1	0
Network Admin II (9044)	1	1	0	Exec Director of Admin (9004)	1	1	0
Purchasing Agent/Buyer (5005)	1	1	0	Exec Director of AMAP (9005)	<u>1</u>	<u>1</u>	<u>0</u>
Right of Way Agent (5014)	1	1	0		3	3	0
Scheduler/Coord AMAP (5032)	1	1	0				
Scheduler/Coordinator Ops (5033)	1	1	0	<u>Range 7 (\$102,200 to \$153,200)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
Source Protection Coord (5018)	<u>1</u>	<u>1</u>	<u>0</u>	General Manager (9018)	1	1	0
	19	19	0				
				Workforce Management	<u>2018</u>	<u>2019</u>	<u>Change</u>
<u>Range 3 (\$56,100 to \$84,200)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>	Position (9600)	3	3	0
Admin Facility Chief Oper (5019)	1	1	0				
Asset MGMT Program Manager	0	1	1	Full Time Positions	58	59	1
Cust Srv Program Manager (9502)	1	1	0	Part Time Positions	<u>1</u>	<u>1</u>	<u>0</u>
Database Administrator (9027)	1	1	0	Total Non-Union Positions:	59	60	1
Network Admin III (9026)	1	1	0				
WW Maintenance Manager Planner Scheduler (9048)	1	1	0				
Project Engineer (9030)	3	3	0				
Public Relations Manager (PT) (9025)	1	1	0				
Regulatory Security Advsr (9028)	1	1	0				
Transm Dist Supervisor (5011)	2	2	0				
Utility Asset Coord AMAP (9038)	1	1	0				
Utility Asset Coord Water (9039)	1	1	0				
Utility Specialist Suprv (9023)	1	1	0				
Wtr Svs Plnt/Sys Chief Op (9002)	1	1	0				
WW Chief Oper Plant/Sys (9042)	<u>2</u>	<u>2</u>	<u>0</u>				
	18	19	1				

Union Positions

For the 2019 Budget, the Union headcount went down one (1) to 122. The table below shows the requested Union positions by pay grade. The rates shown are effective starting 11/06/17, the current Union contract expires 11/04/18 and the actual 2019 pay grades are subject to negotiation. The Job Class Code (JCC) is in parentheses:

<u>Paygrade - D (\$18.13/\$19.07)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>	<u>Paygrade - I (\$24.24/\$25.48)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
AMR Specialist (1577)	1	1	0	Instrumentation Maint Per (1038)	2	2	0
Laboratory Assistant II (1092)	<u>1</u>	<u>1</u>	<u>0</u>	Senior WW Operator (1055)	5	5	0
	1	1	0	Utility Specialist (1085)	13	13	0
				Wtr Treat Plant Sys Oper (1051)	7	7	0
				WW System Maint/Operator (1082)	<u>2</u>	<u>3</u>	<u>1</u>
					29	30	1
<u>Paygrade - E (\$19.17/\$20.19)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>				
Admin Asst Finance II (1094)	3	3	0				
Administrative Asst Ops (1089)	0	0	0				
Environmental Educator (5029)	1	1	0	<u>Paygrade - J (\$25.70/\$27.06)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
Administrative Asst WW (1083)	<u>1</u>	<u>1</u>	<u>0</u>	Environmental Scientist (1022)	4	3	-1
	5	5	0	Facility Maint Foreperson (1565)	0	0	0
				Tech Maint Pers Mech/Elec (1073)	5	5	0
				Tech Maint Person SLWTF (1070)	1	1	0
<u>Paygrade - F (\$20.34/\$21.39)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>	Water Resource Specialist (1021)	<u>4</u>	<u>4</u>	<u>0</u>
Construction Technician (1004)	1	1	0	(1 of 4 is part-time)	14	13	-1
Cust Serv Coord Ctrl Ctr (1008)	3	3	0				
Equip Operator II (1024)	0	0	0	<u>Paygrade - K (\$27.22/\$28.62)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
Facility Maint Technician (1086)	3	3	0	Dist System Foreperson (1557)	5	5	0
Facility Supp Generalist (1091)	1	1	0	Facility Maint Foreperson (1565)	1	1	0
Technical Admin Asst (1522)	2	2	0	Garage Foreperson (1528)	1	1	0
Wastewater Operator (1006)	3.25	3	-0.25	Lead Env Scien-Foreperson (1573)	1	1	0
Water System Operator (1005)	<u>11</u>	<u>11</u>	<u>0</u>	Operations Foreman, Sys (1090)	1	1	0
	24.25	24	-0.25	Operations Foreperson (1053)	3	3	0
				Utility Foreperson (1095)	1	1	0
				Ops Foreman, WW System (1093)	<u>1</u>	<u>1</u>	<u>0</u>
<u>Paygrade - G (\$21.57/\$22.68)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>		14	14	0
Collections Coordinator (1028)	1	1	0	<u>Paygrade - L (\$28.89/\$30.39)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>
Cust Serv Coordinator (1017)	4	4	0	Inst Maint Foreperson (1537)	1	1	0
Engineering Tech II (1020)	1	1	0	Tech Maint Foreperson (1569)	<u>2</u>	<u>2</u>	<u>0</u>
Equip Operator I (1023)	4	4	0		3	3	0
Garage Mechanic I (1029)	0	0	0				
Fleet Maintenance Tech (1058)	1	1	0				
Millwright I (1049)	1	1	0				
WW Maintenance Operator (1059)	<u>10.75</u>	<u>10</u>	<u>-0.75</u>				
	22.75	22	-0.75				
				Full Time Positions	122	121	-1
<u>Paygrade - H (\$22.89/\$24.06)</u>	<u>2018</u>	<u>2019</u>	<u>Change</u>	Part Time Positions	<u>1</u>	<u>1</u>	<u>0</u>
Asset Mgmt Technician (1575)	4	4	0	Total Union Positions	123	122	-1
Cust Serv Coordinator (1017)	3	3	0				
Collection Sys Maint Oper (1576)	1	1	0				
Inv Control Leadperson (1564)	<u>1</u>	<u>1</u>	<u>0</u>				
	9	9	0				

Temporary & Non-Benefit Employees

Temporary and non-benefit employees supplement regular employees particularly during the busy times of year. These positions are not benefit eligible, but the hours for benefit eligibility are now monitored carefully as is required under the Affordable Care Act. The Lab Assist II position is a non-benefit, employee (usually a college “intern”) who works 20 hours/week. All other positions are classified as “seasonal” employees who also are not offered benefits, but do have their hours tracked to monitor for benefits eligibility. The position totals are listed as full time equivalents (FTE’s). Temporary employees hired via outside agencies are also included below.

Water Operations	2017	2018	2019	Change '18 to 19
A1 - Water Administration	0.00	0.00	0.00	0.00
A2 - Transmission/Distribution	2.29	1.67	0.40	(1.89)
A3 - Water Treatment	0.00	0.00	0.00	0.00
A6 - Utility Services	<u>1.00</u>	<u>1.00</u>	<u>1.97</u>	<u>0.97</u>
	3.29	2.67	2.37	(0.92)
Wastewater Operations				
B1 - Wastewater Administration	0.00	0.00	0.00	0.00
B3 - Portland/Cape/Peaks WWTP's	0.19	0.19	0.19	0.00
B4 - Westbrook/Gorham/Windham WWTP	0.00	0.00	0.00	0.00
L9 - Water / WW Systems	<u>0.10</u>	<u>0.10</u>	<u>0.10</u>	<u>0.00</u>
	0.29	0.29	0.29	0.00
Environmental Services				
A5 - Environmental Services	1.47	1.72	1.82	0.35
L6 - Water / WW Laboratory	<u>0.50</u>	<u>0.00</u>	<u>0.00</u>	<u>(0.50)</u>
	1.97	1.72	1.82	(0.15)
Engineering Services				
C1 - Facility Services Administration	0.50	0.50	0.50	0.00
E2 - Planning & Design	1.00	1.00	1.00	0.00
E3 - New Mains & Construction	0.00	0.00	0.00	0.00
E7 - Instrumentation	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	1.50	1.50	1.50	0.00
Administration Department				
F1 - Customer Service	0.21	0.00	0.00	(0.21)
G1 - Information Services	0.00	0.00	0.00	0.00
H1 - Financial Services	0.00	0.00	0.00	0.00
I1 - Employee Services	0.02	0.02	0.02	0.00
J1 - Executive Office	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	0.23	0.02	0.02	(0.21)
	7.28	6.20	6.00	(1.28)

Temporary & Non-Benefit Employees (continued)

Temporary Positions Detail:

District Paid (Account 660131):

Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Water Operations Intern	1	40	16	640	0.31
A5	Lake Security	6	10	20	1,200	0.58
	Lake Security	2	17	25	850	0.41
	Lake Security	1	10	46	460	0.22
	Environmental Educator	1	20	31	620	
	Wtr Resource Outreach Specialist	1	40	15	655	0.31
A6	Construction Laborer	4	40	25.5	4,080	1.96
B3	Wasterwater Operations Intern	1	40	10	400	0.19
C1	Facility Maintenance Technician	1	40	26	1,040	0.50
E2	Engineering Intern	2	40	13	1,040	0.50
	Engineering Aide	1	40	26	1,040	0.50
						-
L9	Wasterwater Operations Intern	1	40	5	200	0.10
		22			12,226	5.58

Agency Paid (Account 660136):

Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Temp Laborer	1	40	5	200	0.10
I1	Temp Clerical	1	25	2	50	0.02
		2			250	0.12

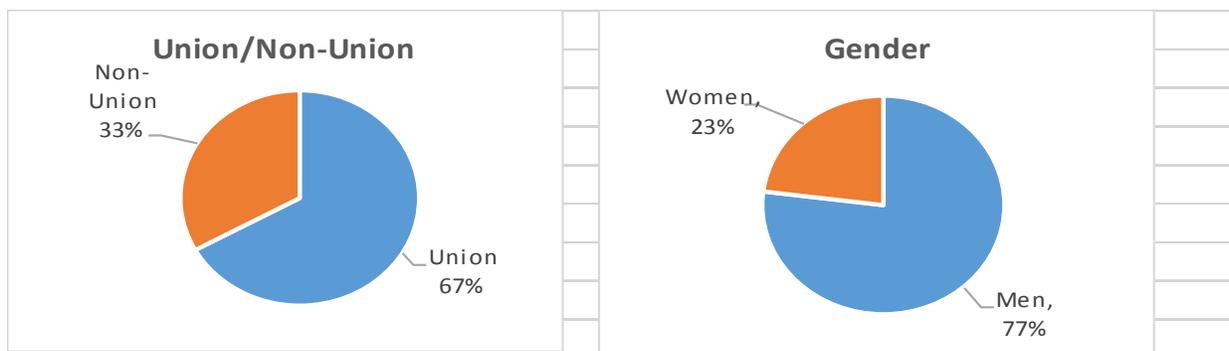
Total District & Agency

24

12,476

5.70

Headcount - All Regular Employees



Work Force Management

In 2019, five (5) employees will reach age 65, the normal retirement age. That would bring the total of current employees, at or above 65, to 12.

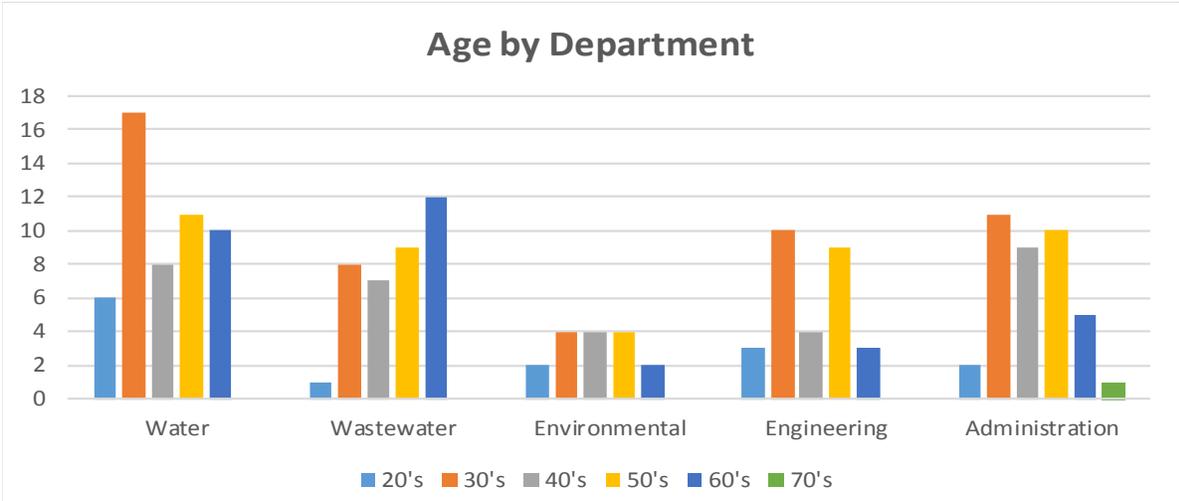
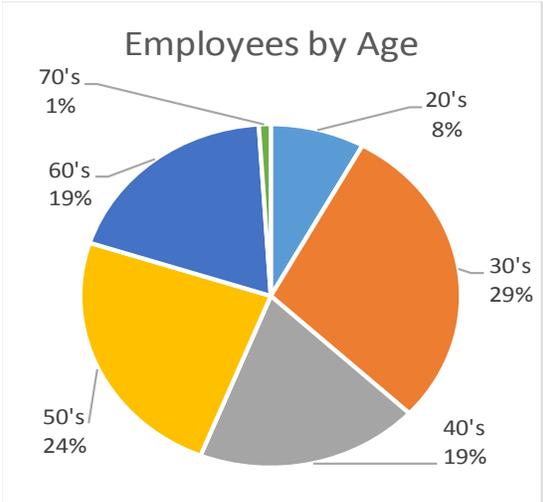
Management has been proactively managing the challenges of baby boomer retirements and the development of promoted personnel and unseasoned new hires.

The Wastewater Department has implemented an Apprentice Program to help educate new hires to the breadth of knowledge needed to operate our facilities, as well as to get exposure to other areas of PWD operations. Documentation, such as procedures for operating the rotary press, has further supported knowledge transfer.

The Water Department’s apprentice program has been satisfying its labor needs. It has served to launch capable Water System Operators into the more advanced Utility System and Water Treatment System Operator roles. The next challenge is preparing employees for the highest

technical roles, and foreperson or supervisory roles.

Generally speaking, the Administration Department is well positioned with existing personnel.



Average Length of Service (years)

<u>Water</u>	<u>Wastewater</u>	<u>Environmental</u>	<u>Engineering</u>	<u>Administration</u>	<u>All Depts</u>
15.1	16.2	13.6	15.1	10.3	14.1

Work Force Management (continued)

Employee Development

The District actively promotes skill development by encouraging participation in local, regional and national organizations, and on the job training. Also, a goal of an average of 80 hours of training per employee per year has been established.

Managing Today

To address work force management issues, the District requires all employees' performance be evaluated yearly with an action plan to assist with continuous development. Pay adjustments for non-union employees are based on performance. Non-Union Compensation policy requires that a market survey be conducted every two years to assure we are competitively compensating employees. The non-union market survey was conducted in 2016 with results implemented January 2017.

Travel Budget

The Board of Trustees approves an annual budget for out-of-state and overnight business travel. The General Manager specifically approves these travel requests. The total costs may not exceed the District's total budget without the Board's authorization.

Department	2018 Budget	2019 Budget	Change
Water Services	\$3,500	\$7,000	\$3,500
Wastewater Services	11,250	8,750	-2,500
Environmental Services	8,150	6,300	-1,850
Engineering Services	8,100	9,100	1,000
Administration	<u>20,500</u>	<u>24,000</u>	<u>3,500</u>
	\$51,500	\$55,150	\$3,650

Training Budget

Employee development is comprised of the annual budget for all in-state and out-of-state training events. Employee development costs include the travel budget listed above.

Department	2018 Budget	2019 Budget	Change
Water Services	\$232,013	\$271,301	\$39,288
Wastewater Services	177,620	179,860	2,240
Environmental Services	73,197	70,626	-2,571
Engineering Services	149,159	150,496	1,337
Administration	<u>208,863</u>	<u>214,494</u>	<u>5,631</u>
	\$840,852	\$886,777	\$45,925
Operating Expense Budget	\$29,218,466	\$30,042,141	
Percentage of O&M Budget	2.9%	3.0%	

Work Force Management (continued)

Environment and Tools

Organizational development and improvement is an on-going process. Management continues to evaluate areas that require additional focus as business needs and demands evolve, and as laws or rules governing our practices change. Many of these focus areas require cross-functional involvement including alignment to ensure understanding, practical and consistent application and communication of changes.

Management continues to utilize department monthly meetings to keep employees up to date re: Board activities and decisions, significant capital improvement projects, business challenges and changes, and updates of organizational practices and policies.

SharePoint will continue to evolve in 2019 as our forum of daily information sharing, and document management across PWD. Developing and implementing a common methodology for cataloging documents to improve knowledge retrieval/sharing, and reducing document redundancy are significant areas of growth this year, ultimately involving every employee.

An organization's total compensation package is a key factor in establishing our competitive posture in the employment market, and employee satisfaction. As with most organizations, we continue to monitor any modifications to the Affordable Care Act for impact on our health plan.

Employee Satisfaction Survey

A survey of employees on the work climate is conducted every other year and was last done late 2017. A new survey was devised and outsourced to utilize the expertise of Market Decisions Research. 80% of employees across PWD participated in the survey and the results have been analyzed. Employee loyalty was reflected in the fact that two out of five employees reported that they are extremely likely to recommend PWD as a workplace. Amongst our highest rankings are:

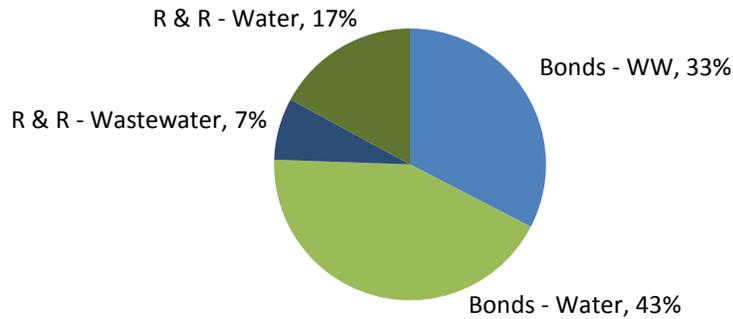
- Approval for the General Manager, Carrie Lewis, with 94% of the employees saying she has had a positive impact on PWD.
- Over 90% of participants confirmed that they know how to do their jobs safely and have the materials and equipment to do so. Employees confirmed that they know how and where to report any safety hazards and would not hesitate to do so.
- The employees also ranked our health plan as an important benefit that they consider to be good or better than other similar organizations.
- 80% agreed that PWD provides excellent customer service, with 50% strongly affirming this.

New this year, was the inclusion of Gallup Poll questions as a point of comparison to the overall working population in the United States. From the responses to these questions, 45% of PWD employees are highly engaged as compared to 31% of the general working population. The overall engagement index ratio for PWD is 2.8. This means that employees at PWD are 2.8 times more likely to be engaged rather than disengaged. The factors within that ratio were the responses by participants that they had the materials and equipment to do their jobs safely (4.56); employees said that they know what is expected of them (4.25); and the mission/purpose of PWD makes them feel that their jobs are important.

Introduction

Capital expenditures are financed either from withdrawals from the Renewal and Replacement fund (R&R fund) established for each enterprise fund or through the issuance of a bond. The financing option for each project is noted when the Board authorizes the project. A summary of 2019 financing options (source of funds) are noted in the chart below. The funds will be used to fund \$13.97 million in water projects and \$9.3 million in wastewater projects.

Financing Summary



Annual Fund Operating Budget

The annual budget includes the impact of issuing \$17.58 million of debt and \$5.38 million in contributions to the renewal and replacement funds. All the funds are below the Board target maximum. The projects financed have minimal impact to the operating budget. Most of the projects address aging assets so related maintenance costs of those assets will be lower.

The transportation debt service and renewal & replacement contributions are allocated to funds and departments through an hourly rate and are included in the transportation - internal line item.

	2018 Budget	2019 Budget	\$ Change
Debt Service Principal, Interest & Related Expense	8,905,557	9,722,048	\$816,491
Debt Service - Allocated	672,225	670,130	(2,095)
Annual Debt Service	9,577,782	10,392,178	814,396
Renewal & Replacement - Water - General	2,600,000	2,750,000	150,000
Renewal & Replacement - Wastewater	1,385,651	1,505,549	119,898
Renewal & Replacement - Multi-Fund Assets	850,000	850,000	-
Renewal & Replacement - Funds	4,835,651	5,105,549	269,898
Renewal and Replacement - Transportation	320,000	320,000	-
Annual Renewal and Replacement Contributions	5,155,651	5,425,549	269,898
Total Capital / Finance	14,733,433	15,817,727	1,084,294

Bond Financing

Overview

The District typically finances larger capital projects by issuing revenue bonds for a term of the asset's useful life or 20 years, whichever is shorter. Since most of the District's assets have a useful life in excess of 20 years, the typical bond term is 20 years. A financial analysis is conducted before issuing the bond to determine the optimal bond term. The District's charter authorizes the District, through its trustees and without vote of its inhabitants, to issue bonds to pay for the costs of capital outlays incurred in connection with acquiring, renovating or constructing water and wastewater assets.

Water bonds are secured by the revenues of customers' water rates and charges. In the event of a bond payment default, the District has the power to assess its member municipalities to provide funds to cure the default. Such assessments would be allocated based upon the municipalities' respective state valuation.

Wastewater bonds are secured by the District's sewer assessment revenue. In the event of a bond payment default, the municipalities served would be responsible for the debt service related to assets serving that municipality. The annual sewer assessment once certified to the municipality by the District is an obligation of the municipality on *parity* with the municipalities' general obligation debt and entitled to the full faith and credit of the municipality.

Water Capital Reserve Bond

The 2019 Budget includes issuing a \$2 million, **10-Year** bond to finance the replacement of aging water mains. In 2013, a law (35-A M.R.S. §§ 6107-A) was enacted allowing utilities to create a capital reserve to pay for infrastructure improvements, including debt service costs, and allows the reserve to be funded by designating a portion of the utility's revenue. The 2019 budget assumes that 1% of the proposed 4.4% rate adjustment will be used to fund the reserve and will pay for the debt service of the proposed \$2 million bond. The tentative plan is to issue a \$2 million bond each of the next 10 years and raise water rates an additional 1% each year.

Bond Options

The District issues bonds either directly to the market or through the Maine Municipal Bond Bank (MMBB). For larger projects, typically greater than \$10 million, the District considers issuing directly to the market. For smaller projects, the most cost effective option is to issue through MMBB.

MMBB has three different programs – General Bond, Drinking Water SRF (State Revolving Fund) and Clean Water SRF programs. General Bond issues are done twice a year at tax-exempt market rates. The SRF programs have a more flexible closing date and typically result in an interest rate 2% less than market. For qualifying projects, part of the principal may be forgiven. Projects financed through the SRF are competitively awarded by the State of Maine's Department of Human Services (water projects) or Department of Environmental Protection (wastewater projects). Those projects need to comply with certain procurement standards.

Bond Financing (continued)

The current water bond ratings by Moody's and Standard & Poor's ratings are Aa3 and AA, respectively. Moody's bond ratings range from AAA (highest quality) to C (lowest quality) and apply a number qualifier (1-high, 2-mid and 3-low) for each letter range. Standard & Poor's top four bond ratings (AAA, AA, A and BBB) generally are regarded as eligible for bank investment (AAA is highest rating). The latest rating for both was in June 2017. Moody's noted the District's recent deregulation from the Maine Public Utilities Commission. Additionally, the District's sizable and wealthy service area, as well as its strong liquidity and sound debt service coverage supported by annual rate increases were factors. In addition to the items Moody noted, S&P noted the District's sound system operations with virtually unlimited water supply and good financial flexibility due to the affordability of the water rates. Moody's noted the weak legal security as a challenge. The weak legal security references that the District has to be in default before evoking the municipalities' 'double barrel' general taxes cure.

The current Portland Fund wastewater bond rating by Moody's and Standard & Poor's ratings are Aa1 and AA, respectively. Because the municipalities are ultimately responsible for wastewater debt, both firms used Portland's general obligation bond rating. Both noted the relatively strong regional economy, diverse tax base and above average socioeconomics factors along with the city's strong financial performance.

Maine Municipal Bond Bank

The Maine Municipal Bond Bank was created in 1972 by the Maine State Legislature. The agency has an immense history of providing Maine's cities, towns, school systems, water and sewer districts, and other governmental entities access to low cost capital funds through the sale of its highly rated tax-exempt bonds. Established as an independent agency, the Bond Bank is administered by a board of commissioners appointed by the Governor. The Bond Bank works closely with its municipal clientele to provide unique, cost effective and competitive financing programs.

GENERAL RESOLUTION PROGRAM

For municipalities, schools districts, water districts, sewer districts and other local governments requesting loan financing through the General Resolution program. Under this tax-exempt bond financing program, the proposed debt will be paid from a General Resolution pledge of the municipality or municipalities. [Click here to learn more about the approval and financing process of this program.](#)

CLEAN WATER SRF PROGRAM

Created in 1987 by the Clean Water Act, the Maine Municipal Bond Bank serves as financial manager of the Clean Water State Revolving Loan Fund in cooperation with the Maine Department of Environmental Protection. [Click here to learn more about the approval and financing process of this program.](#)

DRINKING WATER SRF PROGRAM

Created by the Safe Drinking Water Act of 1996, the Maine Municipal Bond Bank serves as the financial manager of the Drinking Water State Revolving Loan Fund in cooperation with the Maine Department of Human Services. [Click here to learn more about the approval and financing of this program.](#)

Bond Financing (continued)

Bond Limits

The District has no legal limits of debt. A board approved policy establishes a target maximum level of debt service to 35% of total fund budget and minimum debt service ratio of 1.25. The table indicates the current status and projected status. The projected status is based on the projection included at the end of the Revenue section and includes bond financed capital projects as noted in the 5-year capital plan in the Capital Expenditures section.

The Gorham & Windham fund exceeds the debt service target due to a 2009 project requested by both municipalities. The project connected the Little Falls area to the Westbrook Regional Treatment Facility. A \$10.5M upgrade at the Westbrook Regional Wastewater Treatment facility is planned causing Westbrook's, Gorham's and Windham's debt service ratio to exceed 35% in 2022.

Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

Funds	2018	2019	2020	2021	2022	2023
Water	21%	23%	24%	25%	26%	26%
Wastewater						
Cape Elizabeth	15%	15%	19%	21%	21%	21%
Cumberland	34%	34%	34%	33%	34%	33%
Gorham	35%	35%	34%	35%	47%	47%
Portland	21%	21%	24%	24%	23%	22%
Westbrook	20%	19%	27%	28%	40%	38%
Windham	40%	39%	37%	41%	43%	43%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2018	2019	2020	2021	2022	2023
Water	1.67	1.57	1.57	1.52	1.50	1.48
Wastewater						
Cape Elizabeth	1.52	1.62	1.52	1.46	1.41	1.40
Cumberland	1.15	1.21	1.17	1.17	1.16	1.16
Gorham	1.26	1.30	1.31	1.29	1.17	1.17
Portland	1.35	1.41	1.36	1.36	1.37	1.41
Westbrook	1.75	1.67	1.40	1.37	1.25	1.26
Windham	1.27	1.21	1.33	1.28	1.24	1.24

Water & Wastewater Funds Debt Service

Long-Term Debt Principal & Interest

The District has \$7,734,776 and \$2,422,533 of principal and interest payments in 2019. Of the total, \$7,194,401 and \$2,268,010 of principal and interest, respectively, are expensed to the individual funds. A portion of the debt service related to Meters and the Asset, Billing & Customer Relations Software System (ABC) is allocated to water and wastewater funds (principal of \$540,375 and interest of \$154,523) based on relative benefit received by each fund.

Administrative Fees

Maine Municipal Bond Bank (MMBB) bonds issued under the Drinking Water State Revolving Fund (DWSRF) for Water and the State Revolving Fund (SRF) for Wastewater assess an administrative fee of 5% of each year's principal and coupon interest payments. Maine Municipal Bond Bank Non-SRF bonds do not assess any administrative fees. Water and Wastewater bonds issued as stand-alone bonds directly to the market also do not assess administrative fees. Totals fees in 2019 are budgeted at \$195,452.

Debt Issuance Expense

The Water and Wastewater funds incur costs for issuance of the permanent financing. Prior to 2014 governments were allowed to carry the cost of these issuances on their balance sheets and write off the expense over the life of the debt. A change in accounting rules now requires that all issuance costs be recognized in the year of debt issuance. That cost in 2019 is estimated to be \$104,000.

Premiums & Deferred Outflow

The District has received premiums on bonds issued directly to the market. These premiums are recognized over the life of the bonds as a reduction in interest expense. In addition, a bond refunding was done in 2016 that resulted in a deferred outflow being added to the District's balance sheet. That outflow is being amortized over the remaining life of those bonds as an addition to interest expense. The net impact of these items on the 2019 Budget is a reduction of debt service expense of \$247,346.

Contracted Debt Service & Intra-Fund Note

The Cumberland Wastewater Fund contracts with the Town of Falmouth for the use of treatment and wastewater pump stations. Contracted Debt Service expense are payments made by Cumberland to reimburse Falmouth for debt issued to support the services provided, that cost in 2019 is \$294,213. The Windham Intra-fund note payable to Westbrook is for Windham's portion of a one-time buy-in of the regional treatment facility. The original note of \$264,733 was issued on 4/1/08 at 4.395% interest with annual principal and interest payments. The 2019 principal (\$13,240) and interest expense (\$5,383) totaling \$18,623 are budgeted for 2019.

Water & Wastewater Funds Debt Service (continued)

Summary of Debt Service

	Principal	Interest	MMBB & DEP Admin Fees	Debt Issuance Expense	Premium / Def Outflow	Contracted/ Intrafund Note	Debt Service Total
Direct Charges							
Water Fund:							
Water General Assets	2,912,355	1,258,630	52,036	66,000	(207,578)	-	4,081,443
Water Capital Reserve	<u>972,500</u>	<u>370,552</u>	<u>-</u>	<u>20,000</u>	<u>-</u>	<u>-</u>	<u>1,363,052</u>
Sub-Total Water	3,884,855	1,629,182	52,036	86,000	(207,578)	-	5,444,495
Wastewater:							
Cape Elizabeth	165,600	40,826	6,865	1,900	-	-	215,191
Cumberland	6,250	703	348	-	-	294,213	301,514
Falmouth	238,000	42,967	14,052	-	-	-	295,019
Gorham	303,858	56,856	15,073	400	-	-	376,187
Portland	2,134,226	355,771	83,911	14,300	(9,000)	(116,833)	2,462,375
Westbrook	359,428	124,095	12,538	866	-	(13,240)	483,687
Windham	<u>102,184</u>	<u>17,610</u>	<u>5,129</u>	<u>34</u>	<u>-</u>	<u>18,623</u>	<u>143,580</u>
Sub-Total Wastewater	3,309,546	638,828	137,916	17,500	(9,000)	182,763	4,277,553
Total Direct	7,194,401	2,268,010	189,952	103,500	(216,578)	182,763	9,722,048
Meters & Asset, Billing, Customer Relations System Allocated							
Water Fund	269,073	88,158	-	-	(18,172)	-	339,059
Wastewater:							
Cape Elizabeth	11,063	3,547	-	-	(883)	11,593	25,320
Cumberland	5,430	1,750	-	-	(418)	5,797	12,559
Falmouth	-	-	-	-	-	4,643	4,643
Gorham	8,496	2,741	-	-	(647)	11,593	22,183
Portland	83,522	27,106	-	-	(6,089)	82,262	186,801
Westbrook	20,999	6,807	-	-	(1,546)	465	26,725
Windham	<u>337</u>	<u>110</u>	<u>-</u>	<u>-</u>	<u>(23)</u>	<u>30</u>	<u>454</u>
Sub-Total Wastewater	129,847	42,061	-	-	(9,606)	116,383	278,685
Contracted Services:							
Scarborough	4,691	1,537	-	-	(317)	-	5,911
South Portland	<u>36,762</u>	<u>11,935</u>	<u>-</u>	<u>-</u>	<u>(2,672)</u>	<u>450</u>	<u>46,475</u>
Sub-Total Contracted	41,453	13,472	-	-	(2,989)	450	52,386
Total Allocated	440,373	143,691	-	-	(30,767)	116,833	670,130
Direct & Allocated	7,634,774	2,411,701	189,952	103,500	(247,345)	299,596	10,392,178

Debt Service Summary

The debt service expense for each fund consists of two parts:

Direct Debt Service – These charges are related to assets belonging to the specific fund such as treatment plants, pump stations, mains, etc.

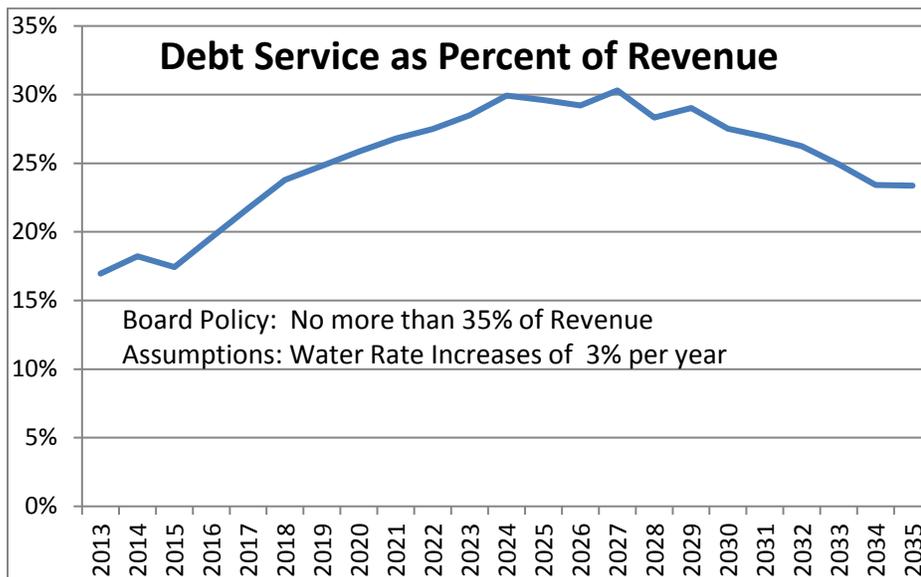
Allocated (Meter) Debt Service – Meters are an asset of the Water fund but are used to calculate both water and wastewater bills. The debt related to meters is allocated to each fund based on number and size of the meters in each municipality.

Together, these two are combined to become each fund's debt service expense.

	Direct	Allocated	Total
Water Fund	5,444,495	339,059	5,783,554
Wastewater:			
Cape Elizabeth	215,191	25,320	240,511
Cumberland	301,514	12,559	314,073
Falmouth	295,019	4,643	299,662
Gorham	376,187	22,183	398,370
Portland	2,462,375	186,801	2,649,176
Westbrook	483,687	26,725	510,412
Windham	143,580	454	144,034
Sub-Total Wastewater	4,277,553	278,685	4,556,238
Contracted Services:			
Scarborough	-	5,911	5,911
South Portland	-	46,475	46,475
Sub-Total Contracted	-	52,386	52,386
	9,722,048	670,130	10,392,178

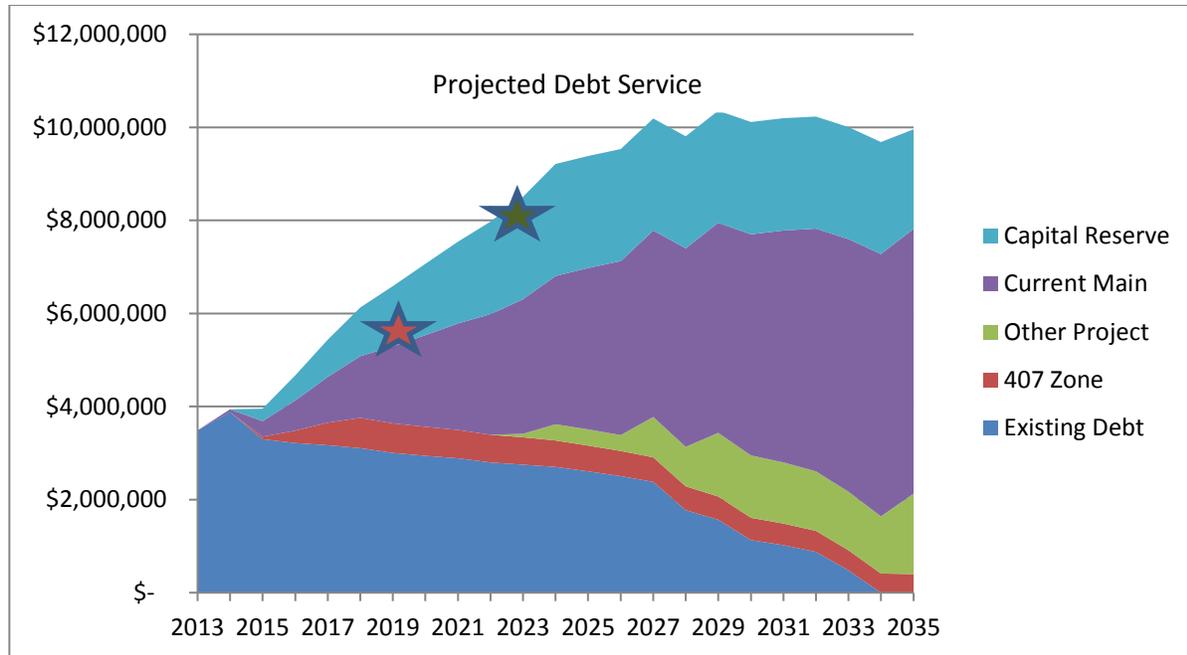
Long-Term Water Fund Target

The long-term water fund target was established in 2013. Projected 2019-2023 is below the established target at 23-26% in those years.



Projected Water Debt

The Water Fund has significant future bond financing needs including completing the 407 zone system upgrade and main renewals. In 2011, the Board adopted the policy to double the investment in main renewal by incrementally increasing the amount spent by \$500,000 until reaching an annual level of \$4 million in 2016. Starting in 2014, an additional annual investment of \$2 million was bonded to pay for main renewal and funded through the capital reserve. Other major projects include the installation of a new meter reading system and transmission line projects.

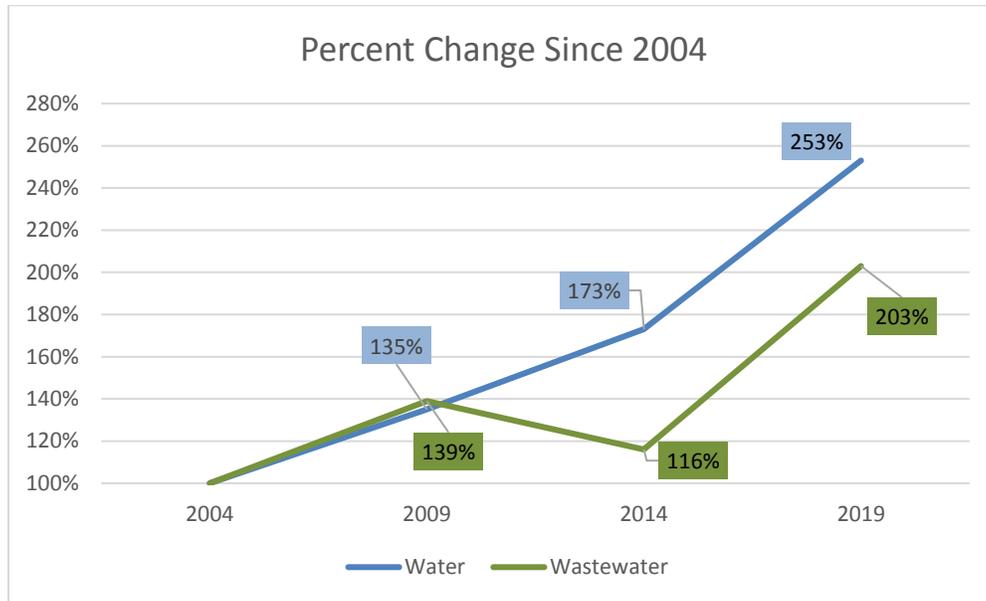


★ The 2019 Budget requests \$5.8 million of debt service, below the long-term plan

★ The updated multi-year projection indicates debt service payments will be \$8.1 million in 2023, \$300,000 below 2013 target.

Outstanding Debt by Fund Trends

The proposed 2019 budget results in outstanding debt increasing by 253% and 203% higher than 2004 for the water and wastewater funds, respectively. Between 2004 and 2009, significant bonded capital projects including the connecting the Little Falls area in Windham and Gorham to the Westbrook Regional Treatment facility and upgrades at the treatment facilities. Investments in water main renewal, water 407 zone and water and wastewater treatment plants & pump stations are driving the more recent increase.



Outstanding Debt By Fund

	2004	2009	2014	2019
Water	\$22,940,000	\$30,950,023	\$39,645,214	\$58,122,421
WW- Cape Elizabeth	839,000	159,250	2,276,000	3,295,050
WW- Cumberland	147,600	130,850	75,000	43,750
WW- Falmouth	0	0	0	4,084,000
WW- Gorham	590,081	5,552,894	4,042,816	3,080,281
WW- Portland	19,914,857	19,263,106	15,517,561	29,449,427
WW- Westbrook	1,792,859	5,325,885	3,645,084	6,396,474
WW- Windham	37,736	1,925,071	1,414,740	954,515
Total	\$ 46,262,133	\$ 63,307,079	\$ 66,616,415	\$ 105,425,918

Water Funds Long-Term Debt

Long-Term Debt Detail:

The table below is a list of all outstanding water fund bonds. A significant amount of debt will be paid off in the current year and will mitigate the debt service of the new bonds scheduled to be issued.

2018 bond issues may appear in the proposed section if the target issue date is after the publication date of 2019 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2018 Balance	2019 Principal	Yr End 2019 Balance	2019 Interest Exp	MMBB/DEP Admin Fee	Issue Cost	PUC Docket#
Existing Debt Water General LTD												
10/27/2005	WTR05-02	General Assets	2025	3.6000% - 5.0000%	\$900,000	\$315,000	\$45,000	\$270,000	\$10,858			2005-488
10/26/2006	WTR06-01	General Assets	2026	3.0000% - 4.0000%	\$1,500,000	\$600,000	\$75,000	\$525,000	\$15,698			2006-510
10/30/2008	WTR08-01	General Assets	2028	3.1950% - 5.5750%	\$1,500,000	\$750,000	\$75,000	\$675,000	\$36,445			2008-360
04/01/2009	WTR09-01	General Assets (407 Zone)	2028	1.0500% - 1.0500%	\$1,598,500	\$799,250	\$79,925	\$719,325	\$8,252	\$4,416		2008-360 AMENDED
08/28/2009	WTR09-04	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$2,991,066	\$1,645,086	\$149,553	\$1,495,533	\$0	\$7,478		2009-128
08/28/2009	WTR09-05	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$163,953	\$90,174	\$8,198	\$81,976	\$0	\$410		2009-128
05/27/2010	WTR10-02	General Assets (RZEDB)	2030	4.5730% - 5.7460%	\$400,000	\$300,000	\$25,000	\$275,000	\$8,787			2010-62
11/01/2010	WTR10-03	General Assets (DWSRF)	2030	1.0000% - 1.0000%	\$902,500	\$541,500	\$45,125	\$496,375	\$5,340	\$2,527		2010-62
10/27/2011	WTR11-01	General Assets	2031	0.5000% - 5.5000%	\$2,300,000	\$1,495,000	\$115,000	\$1,380,000	\$37,572			2011-266
05/01/2012	WTR12-03	Ozone UV Design & Forest Ave (DWSRF)	2032	1.0000% - 1.0000%	\$1,130,000	\$791,000	\$56,500	\$734,500	\$7,533	\$3,206		2011-266
10/25/2012	WTR12-01	General Assets	2032	1.7400% - 3.7060%	\$2,000,000	\$1,400,000	\$100,000	\$1,300,000	\$40,238			2012-357
05/01/2013	WTR13-01	Ozone-UV Construction Phase 1 (DWSRF)	2032	1.0000% - 1.0000%	\$2,850,000	\$2,100,000	\$150,000	\$1,950,000	\$20,750	\$8,550		2011-266
05/23/2013	WTR13-04	General Assets	2033	1.5500% - 3.7000%	\$1,428,000	\$1,071,000	\$71,400	\$999,600	\$30,868			2013-00167
11/04/2013	WTR13-06	Ozone-UV Construction Phase 2	2034	3.0000% - 4.2500%	\$8,000,000	\$6,400,000	\$400,000	\$6,000,000	\$248,000			2011-266
11/15/2013	WTR13-05	General Assets (DWSRF)	2033	1.0700% - 1.0700%	\$1,072,000	\$804,000	\$53,600	\$750,400	\$8,507	\$3,110		2013-00167
06/30/2014	WTR14-01	General Assets	2034	3.0000% - 3.5000%	\$2,541,000	\$2,020,000	\$130,000	\$1,890,000	\$55,317			2014-00093
05/14/2015	WTR15-01	General Assets (DWSRF) Scott Dyer Rd	2034	0.1500% - 0.1500%	\$459,000	\$368,297	\$22,760	\$345,537	\$541	\$1,166		2014-38
06/25/2015	WTR15-04	General Assets - Water Main Renewal	2035	3.0000% - 3.2500%	\$3,230,000	\$2,735,000	\$165,000	\$2,570,000	\$83,225			2015-00051
06/25/2015	WTR15-05	General Assets - Ozone Destruct	2035	3.0000% - 3.2500%	\$500,000	\$425,000	\$25,000	\$400,000	\$12,938			2015-00051
12/04/2015	WTR15-06	Water Main Renewal - Gray Road	2035	1.0000% - 1.0000%	\$270,000	\$229,500	\$13,500	\$216,000	\$2,261	\$790		2015-00051
06/20/2016	WT16-04	General Assets - Water Main Renewal	2036	3.0000% - 4.0000%	\$385,000	\$345,000	\$20,000	\$325,000	\$11,867			
06/20/2016	WT16-06	407 Zone Design	2036	3.0000% - 4.0000%	\$1,830,000	\$1,640,000	\$95,000	\$1,545,000	\$56,767			
06/20/2016	WTR16-09	General Assets 2007 Refi	2027	3.0000% - 4.0000%	\$3,034,938	\$2,664,375	\$324,625	\$2,339,750	\$90,966			
09/28/2016	WTR16-10	General Assets - Thorton Heights Phase 3	2036	1.0000% - 1.0000%	\$1,128,979	\$1,053,182	\$53,694	\$999,488	\$10,308	\$3,211		
09/28/2016	WTR16-11	General Assets Westbrook St DWSRF	2036	1.0000% - 1.0000%	\$566,362	\$514,662	\$26,239	\$488,423	\$4,994	\$1,563		
07/18/2017	WTR17-05	General Assets - Water Main Renewal	2037	3.0000% - 5.0000%	\$3,725,000	\$3,537,500	\$187,500	\$3,350,000	\$125,625			
03/02/2018	WTR18-01	Ward's Hill PS (407 Zone Improvement) SRF	2037	1.0000% - 1.0000%	\$1,900,000	\$1,895,000	\$99,736	\$1,795,264	\$18,784	\$5,934		
08/01/2018	WTR18-04	Asset, Billing, Customer Relations System	2028	5.0000% - 5.0000%	\$1,000,000	\$1,000,000	\$100,000	\$900,000	\$57,500			
08/01/2018	WTR18-05	General Assets - Water Main Renewal	2038	3.0000% - 5.0000%	\$900,000	\$900,000	\$45,000	\$855,000	\$42,281			
Total Existing Debt Water General LTD						\$38,429,526	\$2,757,355	\$35,672,171	\$1,052,222	\$42,361		
Proposed Water General LTD												
11/01/2018	WT_Broad_Pleas_1	Broadway/Pleasantdale Main(SRF)	2038	1.0000% - 1.0000%	\$3,100,000	\$3,100,000	\$155,000	\$2,945,000	\$30,742	\$9,300		
05/01/2019	WT_ABC_1	Asset Billing Cust Relations System	2029	4.0000% - 4.0000%	\$1,000,000	\$0	\$0	\$1,000,000	\$26,667		\$10,000	
05/01/2019	WT_Mains_3_1	General Assets - Water Mains	2039	4.5000% - 4.5000%	\$4,500,000	\$0	\$0	\$4,500,000	\$135,000		\$40,000	
05/01/2019	WT_Mains_4_1	General Assets - Water Mains (SRF)	2039	1.5000% - 1.5000%	\$1,000,000	\$0	\$0	\$1,000,000	\$10,000	\$375	\$11,300	
05/01/2019	WT_Ward Hill Tank_1	Ward's Hill Tank SRF	2039	1.5000% - 1.5000%	\$400,000	\$0	\$0	\$400,000	\$4,000		\$4,700	
Total Proposed Debt Water General LTD						\$3,100,000	\$155,000	\$9,845,000	\$206,408	\$9,675	\$66,000	
Total Existing and Proposed Debt Water General LTD						\$41,529,526	\$2,912,355	\$45,517,171	\$1,258,630	\$52,036	\$66,000	
Existing Debt Water Capital Reser												
06/30/2014	WTR14-02	Water Assets - Capital Reserve	2024	3.0000% - 3.0000%	\$2,000,000	\$1,200,000	\$200,000	\$1,000,000	\$43,539			2014-00093
06/25/2015	WTR15-03	Water Assets - Capital Reserve	2025	3.0000% - 3.0000%	\$2,000,000	\$1,400,000	\$200,000	\$1,200,000	\$41,000			2015-00051
06/20/2016	WT16-05	Water Assets - Capital Reserve	2026	3.0000% - 4.0000%	\$1,830,000	\$1,460,000	\$185,000	\$1,275,000	\$49,867			
07/18/2017	WTR17-06	Water Assets - Capital Reserve	2027	3.0000% - 5.0000%	\$1,875,000	\$1,687,500	\$187,500	\$1,500,000	\$67,813			

Water Funds Long-Term Debt (continued)

Long-Term Debt Detail: (continued)

The table below is a list of all outstanding water fund bonds. A significant amount of debt will be paid off in the current year and will mitigate the debt service of the new bonds scheduled to be issued.

2018 bond issues may appear in the proposed section if the target issue date is after the publication date of 2019 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2018 Balance	2019 Principal	Yr End 2019 Balance	2019 Interest Exp	MMBB/DEP Admin Fee	Issue Cost	PUC Docket#
08/01/2018	WTR18-06	Water Assets - Capital Reserve	2028	5.0000% - 5.0000%	\$2,000,000	\$2,000,000	\$200,000	\$1,800,000	\$115,000			
Total Existing Debt Water Capital Reserve						\$7,747,500	\$972,500	\$6,775,000	\$317,219			
Proposed Water Capital Reserve												
05/01/2019	WT_Mains_5_1	General Mains Capital Reserve	2029	4.0000% - 4.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$53,333		\$20,000	
Total Proposed Debt Water Capital Reserve						\$0	\$0	\$2,000,000	\$53,333	\$0	\$20,000	
Total Existing and Proposed Debt Water Capital Reserve						\$7,747,500	\$972,500	\$8,775,000	\$370,552	\$0	\$20,000	
Existing Debt Meters Allocated												
05/28/2009	WTR09-02	Meters	2029	2.0800% - 5.5800%	\$4,519,800	\$2,485,890	\$225,990	\$2,259,900	\$82,837			2006-403
05/28/2009	WTR09-03	Sub-Meters	2029	2.0800% - 5.5800%	\$180,200	\$99,110	\$9,010	\$90,100	\$3,303			2006-403
06/20/2016	WTR16-07	Meters 2007 Refi	2027	3.0000% - 4.0000%	\$1,734,250	\$1,522,500	\$185,500	\$1,337,000	\$51,981			
06/20/2016	WTR16-08	Submeters 2007 Refi	2027	3.0000% - 4.0000%	\$185,813	\$163,125	\$19,875	\$143,250	\$5,569			
Total Existing Debt Meters Allocated						\$4,270,625	\$440,375	\$3,830,250	\$143,689			
Total Existing and Proposed Water Debt						\$53,547,651	\$4,325,230	\$58,122,421	\$1,772,872	\$52,036	\$86,000	

Wastewater Funds Long-Term Debt

Long-Term Debt Detail:

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2018 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2019 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2018 Balance	2019 Principal	Yr End 2019 Balance	Accrued 2019 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mtg Fee	Interest Expense		
Existing Debt Cape Elizabeth													
10/30/2008	WW08-03	Cape - Generators	2028	3.1950% - 5.5750%	\$95,000	\$47,500	\$4,750	\$42,750	\$2,308	\$0	\$2,308		
12/16/2011	WW11-01	CESO Treatment / Spurwink (SRF)	2031	1.0000% - 1.0000%	\$2,430,000	\$1,579,500	\$121,500	\$1,458,000	\$15,593	\$0	\$15,593	\$6,865	
10/25/2012	WW12-03	Cape Ottawa Rd CSO Studies / Treatment	2032	1.7400% - 3.7060%	\$160,000	\$112,000	\$8,000	\$104,000	\$3,219	\$0	\$3,219		
05/28/2015	WW15-02	Wastewater CE Garden Lane	2035	1.7800% - 3.8900%	\$240,000	\$204,000	\$12,000	\$192,000	\$6,251	\$0	\$6,251		
05/25/2017	WW17-03	Cape Elizabeth WW Projects	2037	1.4200% - 3.9180%	\$315,000	\$299,250	\$15,750	\$283,500	\$8,657	\$0	\$8,657		
11/02/2017	WW17-07	CE Wildwood PS Upgrade	2037	1.4400% - 4.0650%	\$72,000	\$68,400	\$3,600	\$64,800	\$1,923	\$0	\$1,923		
Total Existing Debt Cape Elizabeth						\$2,310,650	\$165,600	\$2,145,050	\$37,951	\$0	\$37,951	\$6,865	
Proposed Cape Elizabeth													
11/01/2019	WW_Cape_TP_HVAC_1	Treat Plant HVAC (SRF)	2039	1.5000% - 1.5000%	\$275,000	\$0	\$0	\$275,000	\$688	\$0	\$688		\$600
11/01/2019	WW_Cape_TP_UV_1	Treatment Plant UV Disinfection(SRF)	2039	1.5000% - 1.5000%	\$875,000	\$0	\$0	\$875,000	\$2,188	\$0	\$2,188		\$1,300
Total Proposed Debt Cape Elizabeth						\$0	\$0	\$1,150,000	\$2,875	\$0	\$2,875		\$1,900
Total Existing and Proposed Debt Cape Elizabeth						\$2,310,650	\$165,600	\$3,295,050	\$40,826	\$0	\$40,826	\$6,865	\$1,900
Existing Debt Cumberland													
12/22/2006	WW06-01	Cumberland -Tuttle Pump Station (SRF)	2026	1.4200% - 1.4200%	\$125,000	\$50,000	\$6,250	\$43,750	\$703	\$0	\$703	\$348	
Total Existing Debt Cumberland						\$50,000	\$6,250	\$43,750	\$703	\$0	\$703	\$348	
Existing Debt Falmouth													
05/01/2016	WW16-03	Mill Creek PS SRF	2036	1.0000% - 1.0000%	\$4,000,000	\$3,600,000	\$200,000	\$3,400,000	\$36,000	\$0	\$36,000	\$11,800	
03/21/2017	WW17-02	Falmouth Mill Creek PS Phase 2 SRF	2037	1.0000% - 1.0000%	\$760,000	\$722,000	\$38,000	\$684,000	\$6,967	\$0	\$6,967	\$2,252	
Total Existing Debt Falmouth						\$4,322,000	\$238,000	\$4,084,000	\$42,967	\$0	\$42,967	\$14,052	
Existing Debt Gorham													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$78,120	\$15,088	\$3,894	\$11,193	\$102	\$0	\$102	\$62	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$73,185	\$18,143	\$3,659	\$14,483	\$167	\$0	\$167	\$138	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$252,000	\$88,200	\$12,600	\$75,600	\$1,421	\$0	\$1,421	\$702	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$50,400	\$25,200	\$2,520	\$22,680	\$1,081	\$0	\$1,081		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	3.7350% - 5.5750%	\$474,672	\$261,070	\$23,734	\$237,336	\$12,963	\$0	\$12,963		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$4,258,208	\$2,150,610	\$215,061	\$1,935,549	\$30,195	\$0	\$30,195	\$12,301	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$253,475	\$126,738	\$12,674	\$114,064	\$1,236	\$0	\$1,236	\$697	

Wastewater Funds Long-Term Debt (continued)

Long-Term Debt Detail: (continued)

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2018 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2019 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2018 Balance	2019 Principal	Yr End 2019 Balance	Accrued 2019 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mtg Fee	Interest Expense		
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$233,954	\$128,675	\$11,698	\$116,977	\$4,388	\$0	\$4,388		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$52,360	\$31,416	\$2,618	\$28,798	\$310	\$0	\$310	\$147	
03/02/2018	WW18-02	Westbrook Sludge Dewatering Upgrade SRF	2038	1.0000% - 1.0000%	\$308,000	\$308,000	\$15,400	\$292,600	\$4,418	\$0	\$4,418	\$1,026	
Total Existing Debt Gorham						\$3,153,138	\$303,858	\$2,849,281	\$56,278	\$0	\$56,278	\$15,073	
Proposed Gorham													
11/01/2019	WW_WE_Clarifier_1	Westbrook Clarifier SRF	2039	1.5000% - 1.5000%	\$231,000	\$0	\$0	\$231,000	\$578	\$0	\$578		\$400
Total Proposed Debt Gorham						\$0	\$0	\$231,000	\$578	\$0	\$578		\$400
Total Existing and Proposed Debt Gorham						\$3,153,138	\$303,858	\$3,080,281	\$56,856	\$0	\$56,856	\$15,073	\$400
Existing Debt Portland													
10/26/2001	WW01-01	Peaks Ryefield / Seashore Upgrades (SRF)	2021	2.1000% - 2.1000%	\$2,785,000	\$417,750	\$139,250	\$278,500	\$8,285	\$0	\$8,285	\$2,220	
11/01/2001	WW01-02	EE Treatment Clarifiers/Screens/Grit Upgrades (SRF)	2021	2.1000% - 2.1000%	\$1,250,000	\$187,500	\$62,500	\$125,000	\$3,719	\$0	\$3,719	\$997	
04/01/2003	WW03-01	Refund Issue EETF Clarifiers/Screens/Grit (SRF)	2020	0.0000% - 4.0590%	\$1,615,500	\$174,761	\$88,309	\$86,452	\$932	\$0	\$932	\$1,380	
04/01/2003	WW03-02	Portland Treatment Odor Control (SRF)	2022	0.0000% - 4.2030%	\$5,200,000	\$1,004,301	\$259,223	\$745,077	\$6,787	\$0	\$6,787	\$4,122	
11/13/2003	WW03-12	EETF Dewatering/Clarifiers/Screens/Grit (SRF)	2023	0.0000% - 4.4930%	\$1,230,000	\$299,596	\$60,853	\$238,743	\$2,273	\$0	\$2,273	\$2,323	
11/13/2003	WW03-13	EE Treatment Primary Sedimentation & Odor (SRF)	2023	0.0000% - 4.4930%	\$2,000,000	\$498,721	\$100,000	\$398,721	\$5,754	\$0	\$5,754	\$3,777	
12/03/2004	WW04-01	EE Treatment Odor Control (SRF)	2024	1.3300% - 1.3300%	\$375,000	\$112,500	\$18,750	\$93,750	\$1,434	\$0	\$1,434	\$709	
12/03/2004	WW04-02	EE Treatment Dewatering (SRF)	2024	1.3300% - 1.3300%	\$1,740,000	\$522,000	\$87,000	\$435,000	\$6,653	\$0	\$6,653	\$3,288	
12/01/2005	WW05-01	EE Treatment Hypochlorite Upgrade (SRF)	2025	1.6300% - 1.6300%	\$1,900,000	\$665,000	\$95,000	\$570,000	\$10,710	\$0	\$10,710	\$5,292	
04/01/2009	WW09-03	Portland India Pump Station Upgrade (SRF)	2028	1.4700% - 1.4700%	\$5,700,000	\$2,809,940	\$280,994	\$2,528,946	\$40,618	\$0	\$40,618	\$16,115	
11/01/2010	WW10-03	Portland Northeast & Pump Station Upgrades (SRF)	2030	1.0000% - 1.0000%	\$752,200	\$451,320	\$37,610	\$413,710	\$4,451	\$0	\$4,451	\$2,106	
10/27/2011	WW11-02	Portland Pump Station Upgrades	2031	0.5000% - 5.5000%	\$400,000	\$260,000	\$20,000	\$240,000	\$6,534	\$0	\$6,534		
11/04/2013	WW13-02	Peaks Island Sewer Extension	2033	4.0000% - 4.0000%	\$3,000,000	\$2,250,000	\$150,000	\$2,100,000	\$89,000	\$0	\$89,000		
12/04/2015	WW15-07	EEWWTF Aeration Upgrade SRF	2035	1.0000% - 1.0000%	\$2,000,000	\$1,700,000	\$100,000	\$1,600,000	\$16,750	\$0	\$16,750	\$5,850	
07/08/2016	WW16-01	EEWWTF Aeration Phase 2 SRF	2036	1.0000% - 1.0000%	\$7,000,000	\$6,300,000	\$350,000	\$5,950,000	\$62,417	\$0	\$62,417	\$20,650	
07/08/2016	WW16-02	Fore River PS SRF	2036	1.0000% - 1.0000%	\$1,200,000	\$1,080,000	\$60,000	\$1,020,000	\$10,700	\$0	\$10,700	\$3,540	
05/01/2017	WW17-01	EEWWTF Aeration Phase 3 SRF	2036	1.0000% - 1.0000%	\$1,900,000	\$1,795,264	\$99,736	\$1,695,528	\$17,786	\$0	\$17,786	\$5,884	
05/24/2018	WW18-03	Northeast Pump Station Odor Control	2038	2.0300% - 4.0420%	\$500,000	\$500,000	\$25,000	\$475,000	\$15,546	\$0	\$15,546		
Total Existing Debt Portland						\$21,028,653	\$2,034,226	\$18,994,427	\$310,350	\$0	\$310,350	\$78,253	

Wastewater Funds Long-Term Debt (continued)

Long-Term Debt Detail: (continued)

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2018 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2019 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2018 Balance	2019 Principal	Yr End 2019 Balance	Accrued 2019 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mtg Fee	Interest Expense		
Proposed Portland													
11/01/2018	WW_Po_ABC_1	Asset Billing Cust Relation Sys(SRF)	2028	1.0000% - 1.0000%	\$1,000,000	\$1,000,000	\$100,000	\$900,000	\$9,833	\$0	\$9,833	\$5,500	
05/01/2019	WW_Po_India_Gate_1	India Street PS Tide Gate(SRF)	2039	1.5000% - 1.5000%	\$420,000	\$0	\$0	\$420,000	\$4,200	\$0	\$4,200	\$158	\$800
11/01/2019	WW_P0_EE_Clarifier_1	East End Clarifier	2039	4.5000% - 4.5000%	\$750,000	\$0	\$0	\$750,000	\$5,625	\$0	\$5,625		\$1,600
11/01/2019	WW_Po_ABC2_1	Asset Billing Cust Relations Sys (SRF)	2029	1.5000% - 1.5000%	\$400,000	\$0	\$0	\$400,000	\$1,000	\$0	\$1,000		\$500
11/01/2019	WW_Po_EE_HVAC_1	East End HVAC (SRF)	2039	1.5000% - 1.5000%	\$575,000	\$0	\$0	\$575,000	\$1,438	\$0	\$1,438		\$1,000
11/01/2019	WW_Po_EE_Power_1	East End Plant Power(SRF)	2039	1.5000% - 1.5000%	\$3,950,000	\$0	\$0	\$3,950,000	\$9,875	\$0	\$9,875		\$5,200
11/01/2019	WW_Po_EE_Upgrades_1	East End influent screen&tank pipe	2039	4.5000% - 4.5000%	\$960,000	\$0	\$0	\$960,000	\$7,200	\$0	\$7,200		\$1,900
11/01/2019	WW_Po_Fore_P2_1	Fore River Pump Staion-Ph2 (SRF)	2039	1.5000% - 1.5000%	\$2,500,000	\$0	\$0	\$2,500,000	\$6,250	\$0	\$6,250		\$3,300
Total Proposed Debt Portland						\$1,000,000	\$100,000	\$10,455,000	\$45,421	\$0	\$45,421	\$5,658	\$14,300
Total Existing and Proposed Debt Portland						\$22,028,653	\$2,134,226	\$29,449,427	\$355,770	\$0	\$355,770	\$83,910	\$14,300

Wastewater Funds Long-Term Debt (continued):

Long-Term Debt Detail: (continued)

The tables below contain a list of all outstanding debt for the Westbrook wastewater fund . Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2018 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2019 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2018 Balance	2019 Principal	Yr End 2019 Balance	Accrued 2019 Interest & Fees				MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP	Mgt Fee	Interest Expense		
Existing Debt Westbrook														
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$284,208	\$54,890	\$14,168	\$40,722	\$371	\$0	\$371	\$225		
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$266,254	\$66,005	\$13,313	\$52,692	\$606	\$0	\$606	\$503		
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$1,316,800	\$460,880	\$65,840	\$395,040	\$7,423	\$0	\$7,423	\$3,668		
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$183,360	\$91,680	\$9,168	\$82,512	\$3,932	\$0	\$3,932			
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	3.7350% - 5.5750%	\$2,384,641	\$1,311,553	\$119,232	\$1,192,321	\$65,123	\$0	\$65,123			
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$974,925	\$487,463	\$48,746	\$438,716	\$4,753	\$0	\$4,753	\$2,681		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$113,220	\$67,932	\$5,661	\$62,271	\$670	\$0	\$670	\$317		
12/04/2015	WW15-08	Westbrook CSO Upgrade SRF	2035	1.0000% - 1.0000%	\$1,000,000	\$850,000	\$50,000	\$800,000	\$8,375	\$0	\$8,375	\$2,925		
03/02/2018	WW18-02	Westbrook Sludge Dewatering Upgrade SRF	2038	1.0000% - 1.0000%	\$666,000	\$666,000	\$33,300	\$632,700	\$9,552	\$0	\$9,552	\$2,219		
09/01/2018	WW18-07	Dana Court PS Upgrades SRF	2039	1.0000% - 1.0000%	\$2,200,000	\$2,200,000	\$0	\$2,200,000	\$22,041	\$0	\$22,041			
Total Existing Debt Westbrook						\$6,256,402	\$359,428	\$5,896,974	\$122,846	\$0	\$122,846	\$12,538		
Proposed Westbrook														
11/01/2019	WW_WE_Clarifier_1	Westbrook Clarifier SRF	2039	1.5000% - 1.5000%	\$499,500	\$0	\$0	\$499,500	\$1,249	\$0	\$1,249			\$866
Total Proposed Debt Westbrook						\$0	\$0	\$499,500	\$1,249	\$0	\$1,249	\$0.00		\$866
Total Existing and Proposed Debt Westbrook						\$6,256,402	\$359,428	\$6,396,474	\$124,095	\$0	\$124,095	\$12,538		\$866

Wastewater Funds Long-Term Debt (continued):

Long-Term Debt Detail: (continued)

The tables below contain a list of all outstanding debt for the Windham wastewater fund . Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2018 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2019 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2018 Balance	2019 Principal	Yr End 2019 Balance	Accrued 2019 Interest & Fees				MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP	Mgt Fee	Interest Expense		
Existing Debt Windham														
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$9,672	\$1,868	\$482	\$1,386	\$13	\$0	\$13	\$8		
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$9,061	\$2,246	\$453	\$1,793	\$21	\$0	\$21	\$17		
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$31,200	\$10,920	\$1,560	\$9,360	\$176	\$0	\$176	\$87		
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$6,240	\$3,120	\$312	\$2,808	\$134	\$0	\$134			
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	3.7350% - 5.5750%	\$40,687	\$22,378	\$2,034	\$20,344	\$1,111	\$0	\$1,111			
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$1,681,792	\$849,390	\$84,939	\$764,451	\$11,925	\$0	\$11,925	\$4,859		
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$21,600	\$10,800	\$1,080	\$9,720	\$105	\$0	\$105	\$59		
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$196,046	\$107,825	\$9,802	\$98,023	\$3,677	\$0	\$3,677			
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$4,420	\$2,652	\$221	\$2,431	\$26	\$0	\$26	\$12		
03/02/2018	WW18-02	Westbrook Sludge Dewatering Upgrade SRF	2038	1.0000% - 1.0000%	\$26,000	\$26,000	\$1,300	\$24,700	\$373	\$0	\$373	\$87		
Total Existing Debt Windham						\$1,037,199	\$102,184	\$935,015	\$17,561	\$0	\$17,561	\$5,129		
Proposed Windham														
11/01/2019	WW_WE_Clarifier_1	Westbrook Clarifier SRF	2039	1.5000% - 1.5000%	\$19,500	\$0	\$0	\$19,500	\$49	\$0	\$49			\$34
Total Proposed Debt Windham						\$0	\$0	\$19,500	\$49	\$0	\$49			\$34
Total Existing and Proposed Debt Windham						\$1,037,199	\$102,184	\$954,515	\$17,609	\$0	\$17,609	\$5,129		\$34

Capital Reserve – Water

In 2013, a new state law (35-A M.R.S. 6107-A, Funding for infrastructure improvements for water utilities) was enacted. The law allows a water utility to fund future infrastructure improvements through recovery in rates. As required by the law, the Maine Public Utilities Commission adopted a rule (Chapter 675 – Infrastructure Surcharge and Capital Reserve Accounts) that outlines the maximum amount of funds the may be recovered through rates, use of those funds, and reporting requirements.

The maximum dollar amount of funds that may be recovered through rates depends on the size of the utility. Portland Water District is considered a large utility (utilities with revenues greater than \$750,000 are considered large) and therefore the amount of revenue requirement attributed to funding a capital reserve should not exceed either of the following:

1% of Gross Plant (as of 12/31/2017)	\$ 3,132,302
10% of Revenue Requirement (2019 Budget)	\$ 2,481,516

The capital reserve can only be used to pay for the costs of construction associated with the projects identified in the utility's System Infrastructure Assessment Report (SIA) and are related to transmission, distribution, and treatment of water. The District submitted a SIA that identified water mains that need to be replaced due to age or type of material.

SIA Program	Main to be replaced (ft)	Cost per foot	Miles of pipe	Program Cost
A (Cast Iron pipe >100 years old)	559,680	\$225	106 miles	\$126 million
B (Cast Iron pipe 75-100 years old)	443,520	\$225	84 miles	\$100 million
C (Galvanized Iron pipe)	59,136	\$200	11 miles	\$12 million
D (2 ½" diameter Cast Iron pipe)	84,480	\$200	16 miles	\$17 million
Totals			217 miles	\$255 million

The District has chosen to increase each year an additional 1% for 10 years with the revenue reserved to pay the debt service costs of issuing a \$2 million bond each year. The bond proceeds will be used to replace water mains identified in the SIA.

The 2019 budget assumes 1% of the proposed 4.4% water rate adjustment be dedicated to the capital reserve. Starting in 2014, 1% of the rate adjustments has been dedicated to the reserve.

	2018 Budget	2018 Projected	2019 Budget
Revenue	1,099,268	1,112,108	1,402,364
Expense	1,036,980	966,662	1,274,526
Annual Charge	62,288	145,446	127,838
Carry Forward	395,931	405,951	551,397
	458,219	551,397	679,235

Renewal & Replacement

Each fund contributes to a renewal and replacement (R&R) fund. These funds are used to pay for smaller capital projects as an alternative to issuing long term debt. Each fund maintains a R&R fund for assets owned by that fund. In addition, R&R balances are maintained for other groups of assets that, while owned by the Water fund, serve the needs of all District funds. These other R&R balances are:

Douglass St – This fund is for the building and grounds that serve as the District’s main headquarters.

Meters – Water meters measure water flow but provide data used in both water and wastewater billing.

Technology – This category includes both computer hardware and software systems that serve all District funds.

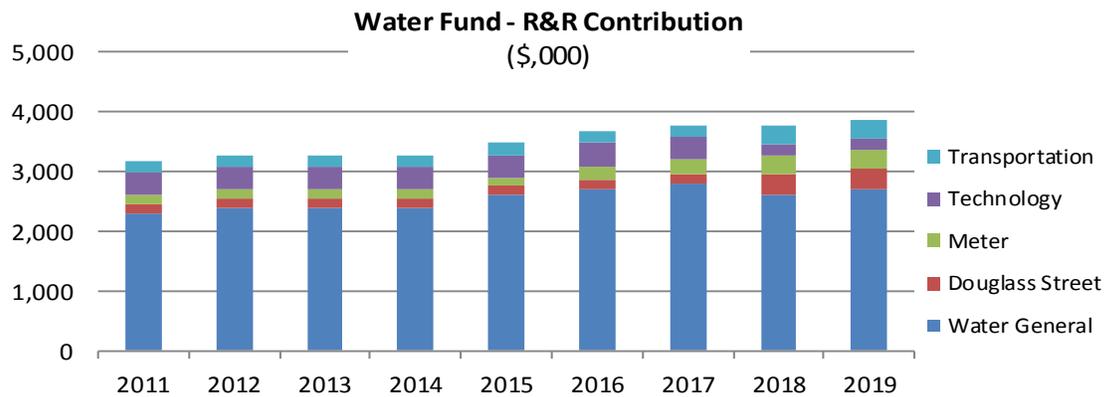
Transportation – These assets are used by all District funds. The charge for the R&R funding is part of the hourly rate of each vehicle (an internal line item).

2019 Contributions:

	Fund	Douglass St	Meters	Technology	Combined*	Total
Water	\$2,750,000	\$234,036	\$189,631	\$111,780	\$535,447	\$3,285,447
Wastewater:						
Cape Elizabeth	125,000	10,980	5,104	7,180	23,264	148,264
Cumberland	54,700	5,436	2,813	4,160	12,409	67,109
Gorham	100,000	8,352	4,524	5,280	18,156	118,156
Portland	900,000	79,380	49,967	57,820	187,167	1,087,167
Westbrook	300,000	16,416	12,267	12,080	40,763	340,763
Windham	25,849	2,124	232	1,700	4,056	29,905
Contracted Services:						
Falmouth	-	-	-	-	-	-
Scarborough	-	36	3,306	-	3,342	3,342
South Portland	-	3,240	22,156	-	25,396	25,396
R&R - Funds	\$4,255,549	360,000	290,000	200,000	850,000	5,105,549
R&R - Transportation						320,000
R&R - Total						5,425,549
*Combined = Douglass St + Meters + Technology						

Water Fund - Renewal & Replacement Fund

The District will contribute a total of \$3,870,000 to the renewal and replacement fund in 2019. Similar to the debt service costs, renewal and replacement reserve is directly received from the fund or indirectly through the appropriate allocation method from all funds. The Water renewal and replacement contribution is capped at approximately \$4,300,000, which is the estimated depreciation of all water assets, per Maine Public Utility Commission rules. Starting in 2011, the District began to track and reserve balances by different categories of renewal & replacement with part of the general surplus designated to the transportation, technology, meter and Douglass Street building reserves.



	Water General	Douglass Street	Water Meters	Technology	Transportation	Total
Balance 12/31/16	5,397,552	237,327	(78,520)	558,599	571,204	6,686,162
Contribution - 2017	3,052,894	150,000	240,000	200,000	380,000	4,022,894
Expenditure	(3,614,822)	(271,676)	(372,784)	(459,207)	(384,350)	(5,102,839)
Balance 12/31/17	4,835,624	115,651	(211,304)	299,392	566,854	5,606,217
Contribution - 2018	2,600,000	360,000	290,000	200,000	320,000	3,770,000
Expenditure (Est'd)	(4,678,252)	(380,124)	(415,819)	(366,050)	(438,450)	(6,278,695)
Balance 12/31/18 (Est'd)	2,757,372	95,527	(337,123)	133,342	448,404	3,097,522
Contribution - 2019	2,750,000	360,000	290,000	200,000	320,000	3,920,000
Expenditure (Est'd)	(2,775,000)	(300,000)	(300,000)	(200,000)	(400,000)	(3,975,000)
Balance 12/31/19 (Est'd)	2,732,372	155,527	(347,123)	133,342	368,404	3,042,522
Target R&R Balance (1% of Gross Fixed Asset Cost)						\$3,132,000

Wastewater Funds - Renewal & Replacement Funds

Each wastewater fund includes an annual contribution to the renewal and replacement (R&R) reserve to finance capital additions or replacements.

At the end of 2017, operating surpluses in Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham were transferred to each fund's R&R reserve.

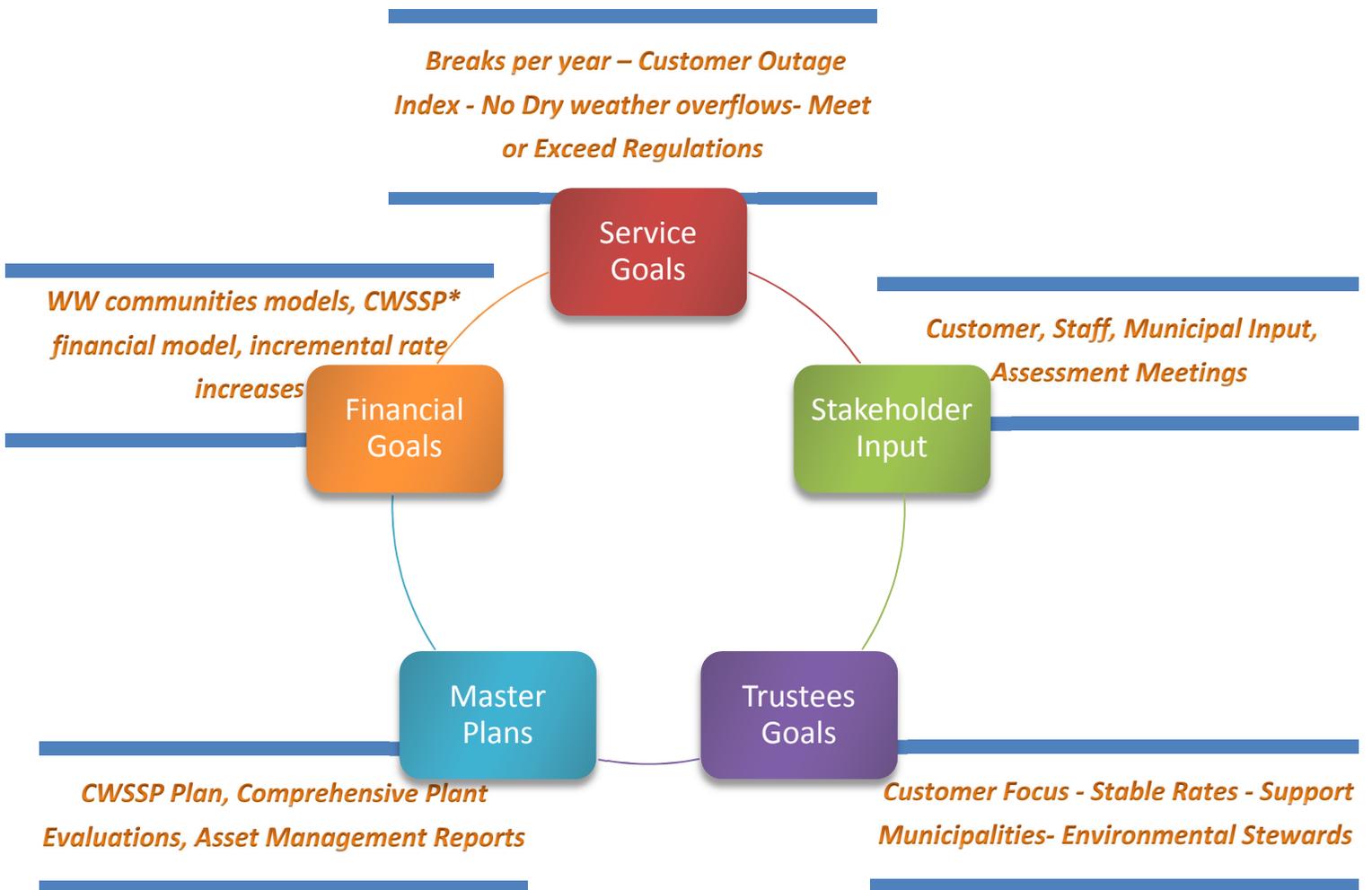
In 2019, R&R contributions decreased for Cumberland (\$72,538 to \$54,700), Westbrook (\$370,574 to \$300,000) and Windham (\$35,849 to \$25,849). The rest of the funds had an increase: Cape Elizabeth went from \$100,000 to \$125,000, Gorham went from \$86,690 to \$100,000 and Portland went from \$720,000 to \$900,000.

The estimated 2019 expenditures from the R&R funds are based on the 2019 Capital Improvements Budget as outlined in the Capital Expenditure section.

	CAPE					
	ELIZABETH	CUMBERLAND	GORHAM	PORTLAND	WESTBROOK	WINDHAM
Balance 12/31/16	288,476	276,532	872,348	3,216,568	2,973,020	331,784
Contribution - 2017	80,000	19,628	54,202	720,000	377,652	20,000
Operating Surplus Transfer	-	25,186	71,536	598,992	38,409	19,335
<u>Expenditure</u>	<u>(267,204)</u>	<u>(131,628)</u>	<u>(159,647)</u>	<u>(691,902)</u>	<u>(126,900)</u>	<u>(104,109)</u>
Balance 12/31/17 Estimated	101,272	189,718	838,439	3,843,658	3,262,181	267,010
Contribution - 2018	100,000	72,538	86,690	720,000	370,574	35,849
Operating Surplus Transfer	32,896	32,270	8,131	381,289	40,323	19,935
<u>Expenditure (Est'd)</u>	<u>(50,843)</u>	<u>(9,901)</u>	<u>(14,596)</u>	<u>(873,334)</u>	<u>(142,133)</u>	<u>(20,517)</u>
Balance 12/31/18 Estimated	183,325	284,624	918,664	4,071,613	3,530,945	302,277
Contribution - 2019	125,000	54,700	100,000	900,000	300,000	25,849
Operating Surplus Transfer						
<u>Expenditure (Est'd)</u>	<u>(120,000)</u>	<u>(152,650)</u>	<u>(257,230)</u>	<u>(869,450)</u>	<u>(244,260)</u>	<u>(56,410)</u>
Balance 12/31/19 Estimated	188,325	186,674	761,434	4,102,163	3,586,685	271,716
Target Renewal & Replacement (5% of Gross Capital Assets)	\$815,000	\$389,000	\$882,000	\$5,601,000	\$1,073,000	\$150,000

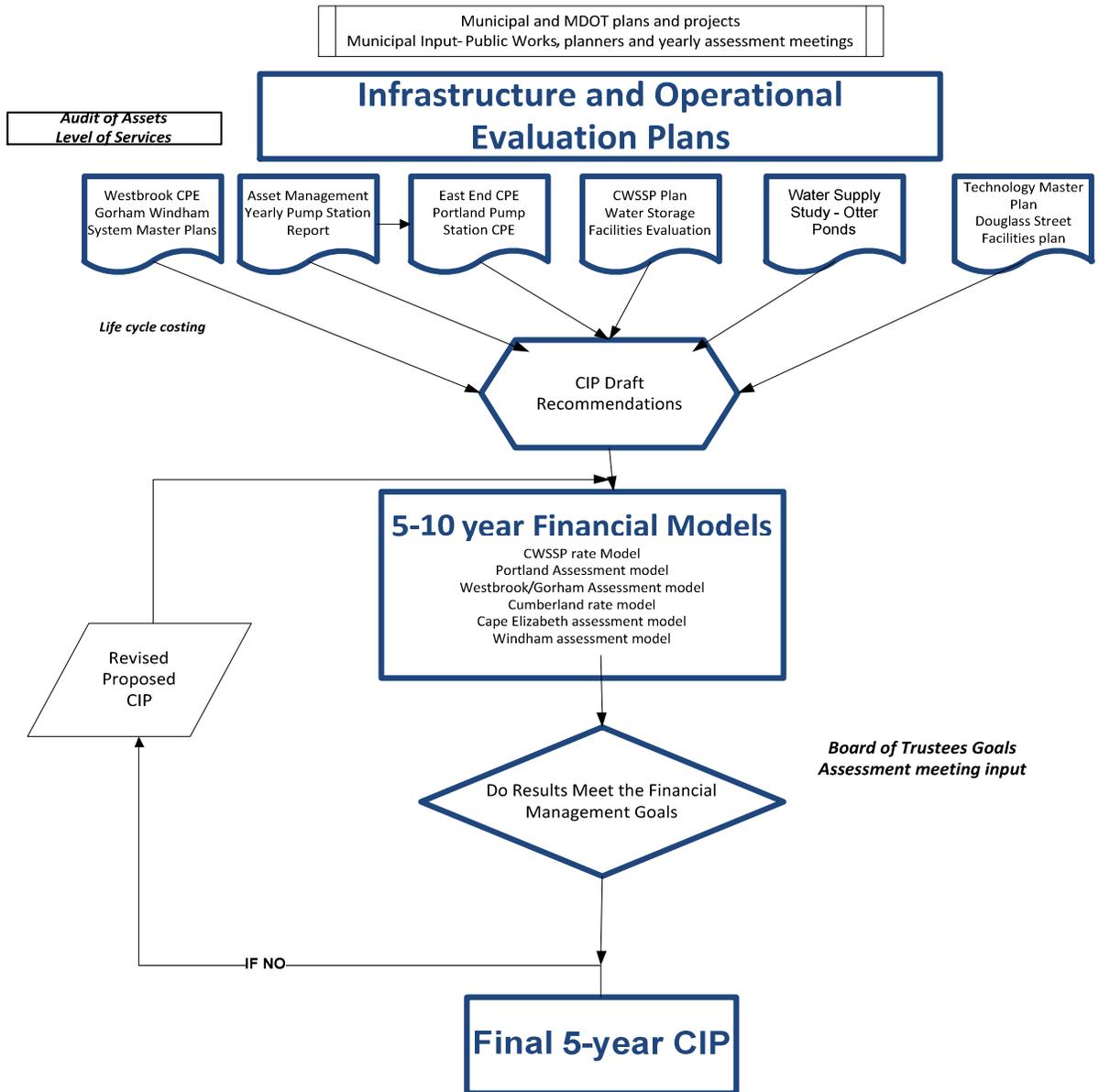
Introduction

A five-year capital improvement plan is developed each year taking into consideration various factors including Infrastructure and Operational Evaluation Plans, Strategic/Tactical Goals and Benchmarks, Multi-year Financial Projections and Board Established Budget Guidelines (described in the Introduction Section). The plan is developed with much of our stakeholder’s input, including input from customers, municipalities, regulators and staff. Staff recommends the Board of Trustees authorize the projects for the first year of the plan to be completed. Capital Expenditures are for a physical asset that exceeds \$10,000 and has a useful life of greater than 5 years or extends the useful life of an existing asset for more than 5 years.



*CWSSP – Comprehensive Water System Strategic Plan

Capital Improvement Program Process



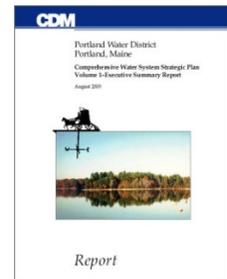
Infrastructure and Operational Evaluation Plans

The water and wastewater industry is an infrastructure-oriented industry. Approximately 95% of the District's total assets are infrastructure assets and capital-financing costs related to those assets are 30% of the annual budget. As the chart on the previous page indicates, a number of studies have been conducted to provide an assessment of those assets and is the basis for the capital improvement plan. A summary of the studies are provided below. Projects proposed in 2019 are identified by project numbers.

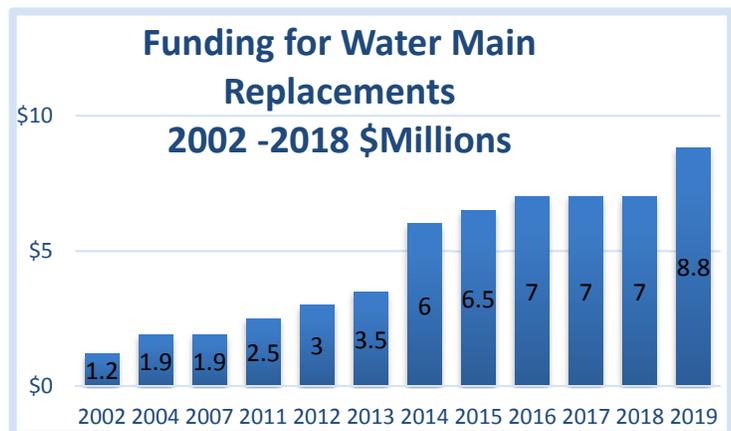
Water Fund

Comprehensive Waster System Strategic Plan (CWSSP) - March 2003

Camp Dresser & McKee, engineering consultants, completed the master plan of the distribution system in March of 2003. The plan was prepared to guide the development, operations and financing of the water system through year 2020. The first 7- year planning cycle (priority - 1 projects 2003-2010) included an investment increase in the water main renewal program (see chart below). Along with the increase in water main renewals, the District also undertook the replacement of our existing water meters with new radio read meters. The project was completed in 2009 as recommended in the plan.



CWSSP also recommended removal or rehabilitation of existing water storage tanks. The District has removed three tanks from the system – Munjoy Hill reservoir, Shore Acres and Oak Hill. In 2008, the District rehabilitated 2-tanks, Steep Falls and Gowen. In 2009, the Standish Tank was rehabilitated and a bulk mixer added. In 2012, modifications were made to the concrete tanks to comply with OSHA fall protection standards (CIP #203).



In the plan, system deficiencies and recommended actions were identified. The most significant project identified from the priority - 1 projects was inadequacies associated with service from the Elevation 407 zone. CWSSP recommended the combining of the 407-north zone with the south zone. Many projects have been completed to that end. This included the inclusion of transmission main piping in the MDOT Rte. 202/Presumpscot River Bridge project, installation of 8,000 feet of trunk main on Fort Hill road along with several upgrades in the Little Falls area of Gorham and Windham as part of the Little Falls Conveyance Project. In 2008, 4,000 feet of transmission main was extended to the new pump station location on Ward's Hill road. In 2009, the transmission main was extended from the end of the Fort Hill main along Huston Road to the proposed pump station location. In 2016 the District completed the Transmission portion of the north 407 zone by extending 24" main from the pump station site 6,500 feet down Dyer Road and Huston Road to Rte. 202 connecting into the 2008 upgrades. This project provided an increase in pressure to approximately 150 customers that had substandard pressure and increased fire protection to the area.

A hydraulic analysis of the combined system and final design of the new 407 zone pump station was completed in 2017 and the pump station construction started in 2017 (CIP #307) and was on-line in

Water Fund (continued)

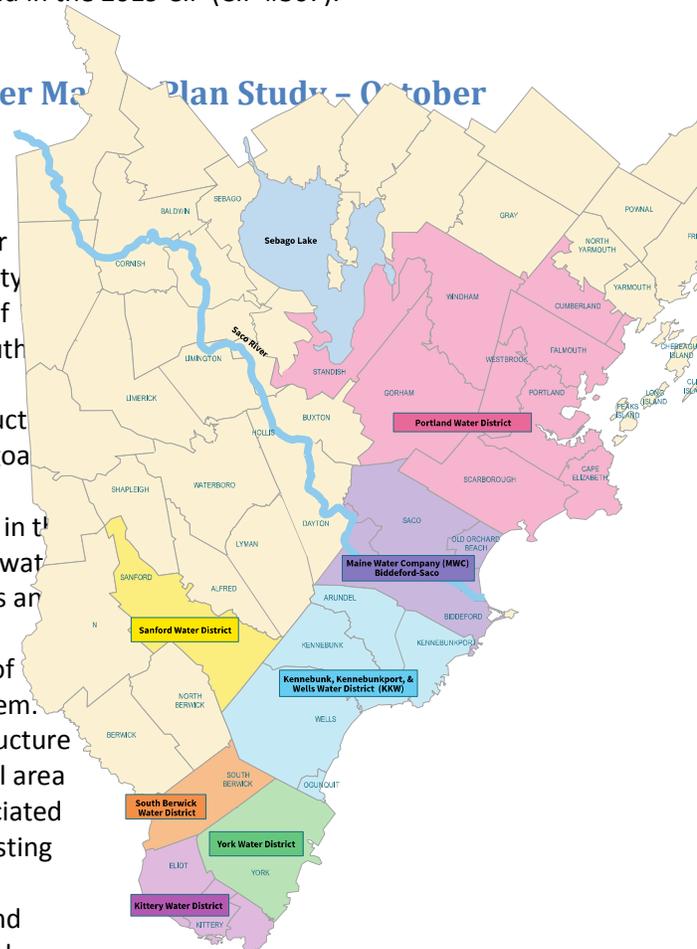
September of 2018. Land acquisition and design for a new storage facility to replace the Windham Center Tank is underway and Construction of the new tank is proposed in the 2019 CIP (CIP #307).

Southern Maine Regional Water Council – Water Master Plan Study – October 2008 (Updated 2016)



The Southern Maine Regional Water Council, made up of the 7 major water utilities of Cumberland and York County completed a master plan in October of 2008. This document provides the southern Maine region with a planning tool for regional solutions to sustainable water resources and infrastructure for the foreseeable future. This study attained the following goals:

- Identified existing and potential sources of supply in the region and established the present and projected water needs in the region. Also, identified the limitations and risks of the existing and future supplies.
- Explored the logistics, benefits and impediments of creating an integrated, regional water supply system.
- Detailed the hydraulic considerations and infrastructure required to supply water over a large geographical area and evaluated potential water quality issues associated with blending various supplies and considered existing and future interconnections between systems.
- Developed short-term strategies for mutual-aid and sharing of resources between member utilities and developed an action plan to protect identified resources for future generations.
- Developed an integrated water supply plan for the entire region.
- Considered potential governance models for a regional supply organization.



The Council has continued to collaborate on regional utility planning and purchasing efforts. In 2016, the Council completed an update to the 2008 Regional Plan. The updated plan created a regional hydraulic model, explored in detail individual interconnections between all the utilities, identified and reviewed the following:

- existing capabilities for each system
- hydraulic limitations
- available water from neighboring systems
- water quality compatibility issues

Water Fund (continued)

Greater Portland Water System – Water Treatment/Alternate Source – November 2008

Camp Dresser & McKee completed a study of the Sebago Lake Water Treatment Facility (SLWTF) in November of 2008. The primary focus of the study was to evaluate design alternatives for the ultraviolet disinfection process proposed to meet upcoming disinfection requirements and evaluate replacement of the existing 20-year old Ozone equipment. This study also reviewed raw water screening alternatives to replace the existing screening equipment. The third area looked at by this study was to evaluate the potential to connect the well supply that was being investigated in the Otter Ponds Aquifer area to the Sebago Lake Water Treatment Facility (SLWTF) as a backup or supplemental supply.

The report recommended conducting a pilot study of ultraviolet disinfection to evaluate the potential of fouling on the ultraviolet disinfection equipment and to help guide the choice of location and technology. The pilot work was completed in 2011. Final design of the UV facility and Ozone replacement equipment commenced in 2011 and was completed in May 2012. Construction of the \$12 million project was completed and the new system was on-line in April of 2014.

The final hydrogeological study of the Otter Ponds Aquifer well was completed. A production well was developed, tested and is licensed for an emergency supply that could supply Standish, Gorham and Windham if needed. Raw water screening for SLWTF was evaluated as part of this project. The current screens at the intake buildings are 50 years old and are in need of replacement. This project is under design and construction is expected to start in 2020 (CIP #18 SLWTF intakes).

Wastewater Funds

Cape Elizabeth – Sewer System

To increase the hydraulic capacity of the Cape Elizabeth WWTF, particularly during high wet weather flow events, the plant was upgraded to accept 2.75 mgd and the bypass pump station was eliminated. Since the upgrade, the plant has performed well during several significant wet weather events, including a record 7-inch rainstorm in August 2014.

In 2009, the District engaged Wright-Pierce engineering consultants to evaluate methods that could lead to elimination of an unlicensed combined sewer overflow (CSO) associated with the Ottawa Road pump station in Northern Cape Elizabeth. The report stated the estimated expense involved in elimination of the CSO and recommended that another approach be taken. This report was accepted by the Department of Environmental Protection (DEP) and led to a three-party license between the Town of Cape Elizabeth, the City of South Portland and PWD as well as the development of a Long-Term Control Plan to mitigate the Ottawa Road CSO.

The scope of the Long-Term Control Plan focuses on reduction of CSO volume through infiltration/inflow (I/I) reduction within the Town's and City of South Portland's collection systems. Improvements to the Ottawa Road Pump Station are also included in the Long-Term Control Plan to address critical infrastructure nearing the end of its useful life. The Town of Cape Elizabeth is undertaking several projects to extend storm sewers.

CCTV assessment of the collection system is ongoing as part of the District's 10 year program to inspect its entire collection system. The project was completed in 2018.

Cape Elizabeth - Pump Stations

The District has continued with the installation of standby power generators at key pump stations. These generators enable systems to operate during the frequent power outages that occur in Cape Elizabeth while reducing manpower during these events. Additionally, automated emergency power goes a long way towards eliminating the occasional back-ups that have occurred within the collection system.

In 2014, an assessment of all of the pump stations in the system was completed, and stations with identified needs were then flagged for more detailed investigation. As a result of those studies and prior CIP's, upgrades at three stations were completed in 2018 (CIP #52: Broad Cove South, project 2313; Stonegate North, project 2556; and Wildwood, project 2314).

In 2018 CIP an upgrade project was approved for the Little John (Family Field) Pump Station. Construction of the upgrades are expected to be completed in 2019 to address components that are near the end of their useful life including pumps, piping, electrical switchgear, ventilation, and controls systems.

Little John Pump Station – 2018 CIP #52, project 1360. Construction of the upgrade will be completed in 2019.



Wastewater Funds (continued)

Gorham/Westbrook/Windham – Westbrook Regional Treatment Plant Evaluations

Wright-Pierce completed a comprehensive plant evaluation of the Westbrook Regional WWTF in 2001. The plan outlined recommended upgrades to the facility that had been constructed in the late '70s. To date, the District has made improvements to:

- The plant electrical system (including the installation of an emergency power generator)
- HVAC systems in the administrative area
- Complete roof replacement
- Plant water system
- Clarifier scum removal
- Scum handling, and sludge conveyances control
- Filtrate pumps
- Chlorine contact tanks
- RAS pumping system
- Dewatered sludge cake and pugmill mixer power pack
- Polymer system
- RAS and flow split to the secondary clarifiers
- The Plant Control System was upgraded in 2012/2013

Proposed major modifications for a headworks upgrade were set aside in favor of installing screens at the two major pump stations feeding the treatment plant. Start-up of these systems at the Cottage Place and East Bridge St. Pump Stations has successfully eliminated pump plugging and has reduced the quantity of rags at the treatment plant.

In 2013, design and replacement of the control system began. This was completed in 2014 along with improvements and automation of the disinfection system.

The aeration system was evaluated in 2015 to develop a roadmap for the eventual upgrade of the aeration system as it nears the end of its service life, and in light of potential regulatory changes. The recommended upgrades to the aeration system will facilitate process control to maintain dissolved oxygen to meet today's loadings, match current peak demand, and provide more energy efficient oxygen delivery. Similar to the East End plant in Portland, a selector is recommended to enhance process control and improve settleability.

In the summer of 2014, the Department of Environmental Protection requested that treatment plants across the State of Maine complete ambient and treatment plant effluent sampling for nitrogen and phosphorus. The recommended upgrades to the aeration facilities would be incorporated into any additional treatment system upgrades for nutrient removal, should that become necessary in the future; however, the latest permit renewal includes continued sampling and monitoring only.

The secondary clarification process at Westbrook has not been upgraded or modified since its original construction and the sludge withdrawal mechanisms are nearing the end of their useful life based on an assessment of the clarifiers completed in 2016. A combined design and construction project for both the secondary clarifier and aeration upgrades is proposed: 2019 Design (CIP #416, project 3022) – Aeration and Secondary Clarifier Upgrade – and construction is planned for 2020.

Wastewater Funds (continued)

Gorham/Westbrook/Windham – Westbrook Regional Treatment Plant Evaluations

In 2015, the District completed an evaluation of sludge dewatering technologies for the Westbrook Regional WWTF, including rehabilitation of the existing belt filter press. Alternative technologies were piloted to quantify the improvement in dewatering performance as compared to the existing equipment. It was determined that alternative technologies would increase the dewatered sludge solids content from an average of approximately 16% to a minimum of 20%, which significantly reduces the volume of sludge to be disposed. This would reduce sludge disposal costs while enhancing flexibility with respect to future sludge disposal alternatives. As a result, in 2016 the proposed belt filter press rehabilitation project (CIP #416 project 2075) was replaced with a proposed upgrade to an alternative technology (CIP #167 project 2534). In 2016, alternative technologies were evaluated and competitively procured through an evaluated bid process that resulted in a recommendation to upgrade to a screw press technology in January of 2017. This project was completed in the spring of 2018. In 2019 the District will undertake the design to upgrade the treatment plants original clarifiers and aeration systems as outlined in the recently completed evaluations (CIP #416, project 3022).

During 2010, the Town of Windham completed a feasibility study to provide sewer to a significant section of the town in the North Windham area. The study recommended the construction of collector sewers and interception to convey wastewater to the treatment plant in Westbrook. A vote in 2012 to not implement the sewer plan placed the project on hold indefinitely. The town is currently considering exploring a stand-alone membrane bioreactor treatment system to serve this area.



Screw Press Cover, Frame and Screen

Westbrook Gorham Windham Regional Treatment Plant



Wastewater Funds (continued)

Westbrook – Sewer System

In late 2007, the District hired Woodard & Curran, Brown & Caldwell and Jordan Environmental to update the City of Westbrook's CSO Master Plan. This plan was completed and submitted to Maine DEP in 2008. Some of the work included in the plan involved the City, and some involved the District. Because the City operates the collection system, the bulk of the first five years would focus on the removal of infiltration and inflow (I/I) from the City collection system. Later portions of the plan would include storage and other work on District owned assets. Since the plan was updated, all flow from all the CSO outfalls are now continuously monitored.

The plan was updated in 2014 and submitted to the DEP per the State's requirements. The plan included a summary of the work completed in the first 5 years and a revised set of projects and schedule. The projects that involve District facilities are being completed in accordance with the Master Plan and have included several projects to increase the capacity of the interceptor system. The Master Plan includes increasing the pumping capacity at the Dana Court Pump Station (CIP #29 project 2527). This project is under construction and expected to be substantially completed by 2019. The plan also includes the addition of screens at CSO diversion structures and was proposed for 2018 (CIP #29 project 2524) but was placed on hold until the next CSO Master Plan update.

Gorham/Windham – Pump Stations and Collector Systems

In May of 2008, flows from the Town of Windham, the Maine Correctional Center and the Little Falls section of Gorham were re-directed to the Westbrook/Gorham WWTF for treatment. This action led to the closure of two outfalls into the Presumpscot River. This project also led to an upgrade of the Tow Path pump station and the decommissioning of the treatment plant in Little Falls in 2010. Due to the relatively young age of most of Gorham's other pump stations, preventive maintenance, condition assessment through CCTV inspection of buried infrastructure, and minor repairs have been the focus in recent years.

To increase reliability and improve service during power outages, standby generators have been installed at most of the pump stations. In 2014, an assessment of all of the pump stations in the system was completed, and stations with identified needs were then flagged for more detailed investigation. As a result of those studies, upgrades at the Androscoggin PS (CIP #180 project 2317) and Canterbury Pines PS (CIP #60 project 1117) were completed by the end of 2017.

To ensure that accurate wastewater flow is measured and used for allocating operating costs to the Town of Gorham, a flow meter was installed to measure the flow from the Town of Gorham to the Westbrook Gorham Windham WWTF. This meter was installed and is maintained by a third party vendor as part of the District's extensive flow monitoring program.

Wastewater Funds (continued)

Portland Wastewater – East End Treatment Plant Evaluations

Over the past 15 years, PWD has completed a number of key projects at the East End Wastewater Treatment Facility using based on the results of a comprehensive evaluation completed by Woodard & Curran engineering consultants in 1998. Major work that has been completed (under CIP subprograms #21 and #409) includes:

- Grit and screenings removal systems at the headworks facility including odor control
- Influent flow split into the primary sedimentation basins including odor control
- Primary sedimentation basin improvements including odor control
- Primary clarifier drive mechanism replacement and flow baffling
- Change over from chlorine and sulfur gas use to sodium hypochlorite and sodium bisulfite
- Modifications to the instrumentation and controls associated with the disinfection system
- Complete upgrade to the sludge dewatering system and sludge handling control system
- Major roof replacements and demolition of obsolete equipment and systems

In addition to the large projects listed above, a number of smaller projects that supported these major upgrades have also been completed:

- Replacement of process gates for the aeration system and chlorine contact tanks
- Installation of a second CSO rated screen in the headworks
- Installation of a polymer system to manage high flows
- Replacement of the influent screenings wash press
- Addition of enclosed sludge thickening equipment to facilitate containment and treatment of odors

The only major process system that had not been upgraded since the original plant construction was the aeration system. Upgrade of the aeration system enables the treatment plant to manage the spikes in pollutant loading to the treatment plant while exercising regular process control to better manage the performance of the treatment system. Design of the upgrade began in 2015 and construction of the project was substantially completed September 2017. The initial impact of the project has been to promote good settling, and reduce odors generated by the aeration system. The project was awarded a grant from Efficiency Maine for energy efficient design. In 2015-2016 evaluations of the plant's electrical and HVAC systems were completed and long term replacement programs were developed. In 2018 design of the EEWTF/Northeast PS Backup Power Upgrade was completed and construction of the project is proposed in the 2019 budget (CIP #21, project 3010). Also proposed for 2019 is a significant HVAC project – Third Floor HVAC Upgrade (CIP #21, project 3017).

Portland Wastewater – Peaks Island Treatment Plant Evaluations

In 2014, the District conducted a feasibility study of ultraviolet disinfection at the Peaks facility as a potential replacement of the batch chlorination/dechlorination process. The study concluded that UV disinfection would provide a cost effective alternative to chlorination while enhancing the plant's ability to disinfect during wet weather flows. The system was installed in 2015 and has been performing well.

Portland Wastewater - Pump Station Evaluations

At the request of the Portland Water District, the consulting firm of Wright-Pierce completed a comprehensive evaluation of the pump stations located within the City of Portland in 2002. A series of recommendations were made to upgrade the key stations. Late in 2006, plans associated with development in the area of the India Street pump station led to a project associated with that station and the Northeast pump station (NEPS). India Street has been upgraded to include self-cleaning wet wells, new pumps, and odor control. Upgrades to the Northeast pump station (pumps, valves and piping) were completed and the internal piping replacement project was completed.

Further modifications to the Northeast pump station are pending future CSO and storm water work planned by the City. CIP subprogram #70 outlines future plans for the remaining pump stations in the City. The full upgrade of the Baxter Boulevard Pump Station was delayed (only pumps, with the ability to be expanded, were replaced) to allow the City's plan to include possible upgrades to the flow capacity of the pump station. Thompson Point Pump Station and the associated force main were upgraded along with the Arcadia Pump Station in 2013.

Phase 1 of the Fore River Pump Station pumping system and controls upgrade is complete. Phase 2 of upgrades to the Fore River station are underway, including installation of a bypass connection and force main condition assessment. The phase 2 design was completed in 2018 with anticipated construction completion in 2019, and will primarily include upgrade of the station's screening, electrical, and ventilation systems. Proposed in 2019 is the design of the Baxter Blvd. Pump Station upgrades along with improvements to the Stroudwater Pump Station (CIP #70 projects 3144 and 3006).

Pictured below are the new pumps installed for the Fore River Pump Station – Phase 1

The City of Portland submitted a Tier III Long-Term Control Plan for the mitigation of CSO flows to Maine DEP in 2011. The plan includes a \$167 million plan over 15 years. This plan focuses on storage and dedicated wet weather systems at the East End WWTF in the later years of the plan. A 2-million gallon storage conduit along Baxter Blvd. and Payson Park was commissioned in 2013. Design and construction of the next two storage conduits is underway. These storage conduits are part of the City's collection system and are owned, operated, and maintained by the City. The treatment of flow from the storage conduits is coordinated with the City on an ongoing and regular basis.

The Portland City Council approved a \$3.1 million sewer expansion on Peaks Island. The project was managed, constructed, and financed by the District. The project was completed in 2014.



Wastewater Funds (continued)

Cumberland – Pump Stations

In 2007, the District completed upgrading the Tuttle Road pump station and the Foreside Road pump station. The Powell Road pump station was completed in 2008. This work completes major upgrades to all of the primary Cumberland pumping stations. Planned improvements to the Cumberland system are shown in CIP subprogram #41. The following was completed in 2009:

- Hooking up a metering vault located on Route 88. This gives us a reading of all Cumberland flow going into Falmouth
- Refurbishment of the Ledge Lane pump station
- Minor repairs as needed

In 2011, the 4th year of CCTV assessment of buried infrastructure was completed. An emergency generator was installed at the Smalls Brook Crossing pump station. This was part of a continued program to install emergency generators at pump stations. In 2014, an assessment of all of the pump stations in the system was completed, and the Longmeadow station was identified for proposed upgrades.

The District and the Town of Cumberland have investigated infiltration and inflow (I/I) sources in the collection system. CCTV work, flow monitoring, and smoke testing will be used to identify sources of I/I. The Town of Cumberland, with the District's assistance, will also inspect homes in an effort to properly manage sump pumps and other sources of inflow. This project is intended to better understand the peak flows that will be sent to Falmouth for treatment and will possibly impact the capacity and cost of shared infrastructure in Falmouth.

The Town of Falmouth replaced the joint use Mill Creek Pump Station and Force Main, which came online in 2017.

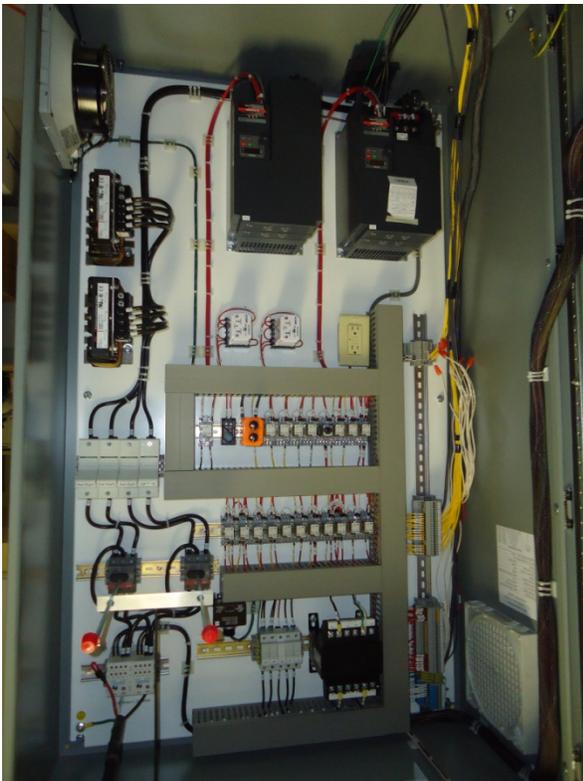
Wastewater Funds (continued)

Wastewater - SCADA and Process Control Plan

In the early part of this decade, the District began installing Supervisory Control and Data Acquisition (SCADA) equipment throughout its service area. The goal was to bring all critical alarming back into the District. Since then, standards have developed and SCADA is in place at most all of our installations. The next step is to meet our goal of bringing all wastewater related SCADA information into a single site located at the East End WWTF in Portland. This will allow us to monitor each wastewater facility at a single wastewater location. The construction of the Central Control Center at the East End WWTF began in mid-2010. During this time, the Westbrook/Gorham/Windham WWTF was connected to the control system directly, improving the ability to monitor and control this facility.

Future programming routines will allow staff to interact with remote sites from a central location. In the end, our goal is to have operation staff in position to acknowledge alarms, trouble shoot mechanical problems and make process adjustments to four wastewater plants and better than 70 pump stations without having to call in additional staff.

CIP subprogram #177 outlines much of the work that is needed to complete the long-range SCADA plan. The 2009 plan began the installation of the Centralized Control Center at the East End WWTF. The Peaks Island WWTF automation upgrade was completed in 2009, allowing for improved automatic operation and monitoring and control of the plant from the East End WWTF's SCADA System. The upgrade of the treatment plant in Cape Elizabeth included similar control system improvements. In 2019, Phase 2 of the SCADA Radio Modem Replacement Project is proposed (CIP #177, project 3126). This project will replace 16 year old radios, Programmable Logic Controllers (PLC) and antennas and will therefore provide more reliable networks.



The SCADA panel for the newly installed Great Pond Pump Station for the Peaks Island Sewer Extension Project

Program Summary and Board of Trustees Approval Order

Program	Program Approval 11/26/18	Special Approval
SCADA & Technology	\$600,000	
Vehicle and Equipment Replacement	\$400,000	
Wastewater Collection Systems and Pumping	\$1,245,000	
Wastewater Treatment Facilities	\$7,705,000	
Water Distribution System Upgrades	\$12,675,000	
Water Facilities Program	\$625,000	
Water Supply - Sebago Lake and Steep Falls	\$25,000	
Program Totals	\$23,275,000	
Combined Program Total		\$23,275,000

Note: Projects that require Special Approval will be brought back to the Board of Trustees for specific authorization.

Proposed Board Action:

ORDERED: that the 2019-2023 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2019 projects, and to authorize the General Manager to award contracts for approved projects to the lowest bidder if the bid is within the project budget.

BE IT FURTHER ORDERED: that the General Manager shall solicit bids or proposals and to partner with Municipalities, MDOT and Developers for the year 2019 for the replacement and extension of water mains, services, valves and hydrants as outlined in the Water Distribution Systems Upgrades Program and to authorize the General Manager to award and enter into contracts if the bid or partnering proposals are within the overall program budget.

Program Summary for 2019

Program	Subprogram #	Budget
<u>SCADA & Technology</u>		
SCADA /Process Control - Water	110	\$50,000
SCADA /Process Control - Wastewater	177	\$350,000
Technology Upgrade and Replacement	50	\$200,000
	Program Total	\$600,000
<u>Vehicle & Equipment Replacement</u>		
Vehicle and Equipment Replacement	326	\$400,000
	Program Total	\$500,000
<u>Wastewater Collection Systems & Pumping</u>		
Cape Elizabeth Pump Stations	52	\$40,000
Cumberland WW Pump Stations	41	\$20,000
Gorham WW Pump Stations	60	\$20,000
Portland WW Pump Stations	70	\$565,000
Westbrook WW Systems	411	\$20,000
Windham - Little Falls WW system	180	\$580,000
	Program Total	\$1,245,000
<u>Wastewater Treatment Facilities</u>		
Cape Elizabeth WWTF	424	\$95,000
East End WWTF	21	\$5,800,000
Peaks Island R&R	423	\$20,000
Westbrook/Gorham/Windham WWTF	416	\$1,790,000
	Program Total	\$7,705,000

Program Summary for 2019 (continued)

Program	Subprogram #	Budget
<u>Water Distribution System Upgrades</u>		
Meter Replacement and Leak Detection	63	\$300,000
Gorham/Windham 407 Zone Improvements	307	\$2,500,000
Water Hydrants Replacement	65	\$200,000
Water Main Renewal - Seasonal Mains	56	\$25,000
Water Main Replacement	43	\$8,800,000
Water Services - Renew Domestic & Fire	61	\$600,000
Water Valve Replacement	53	\$200,000
Water System Redundancy (Looping) and Upsizing Dev.	408	\$50,000
	Program Total	<u>\$12,675,000</u>
<u>Water Facilities Program</u>		
Facilities Improvements	68	\$300,000
Water Facilities Renewal and Replacement	122	\$300,000
Water Storage Facility Maintenance & Upgrade	203	\$25,000
	Program Total	<u>\$625,000</u>
<u>Water Supply - Sebago Lake and Steep Falls</u>		
Water System Security	46	\$25,000
	Program Total	<u>\$25,000</u>
	CIP Total	\$23,275,000

Fund Summary for 2019

Subprogram	Subprogram #	Budget	Manager
Division 10 Allocation			
Facilities Improvements	68	\$300,000	Welch, Andrew
Meter Replacement and Leak Detection	63	\$300,000	Wallace, Jim
Technology Upgrade and Replacement	50	\$200,000	Davis, Chad
Vehicle and Equipment Replacement	326	\$400,000	Welch, Andrew
	Division 10	Total	\$1,200,000
Division 20 Water - General			
Gorham/Windham 407 Zone Improvements	307	\$2,500,000	Johnson, Gordon
SCADA/Process Control - Water	110	\$50,000	Pellerin, Greg
Water Facilities Renewal and Replacement	122	\$300,000	Wallace, Jim
Water Hydrants Replacement	65	\$200,000	Wallace, Jim
Water Main Renewal - Seasonal Mains	56	\$25,000	Wallace, Jim
Water Main Replacement	43	\$8,800,000	Johnson, Gordon
Water Services - Renew Domestic & Fire	61	\$600,000	Wallace, Jim
Water Storage Facility Maintenance & Upgrade	203	\$25,000	Johnson, Gordon
Water System Redundancy (Looping) and Upsizing	408	\$50,000	Johnson, Gordon
Water Valve Replacement	53	\$200,000	Wallace, Jim
Water System Security	46	\$25,000	Wallace, Jim
	Division 20	Total	\$12,775,000
Division 50 Wastewater - General			
SCADA/Process Control - WW	177	\$350,000	Pellerin, Greg
	Division 50	Total	\$350,000
Division 51 Wastewater - Cape Elizabeth			
Cape Elizabeth Pump Stations	52	\$40,000	Poulin, Charlene
Cape Elizabeth WWTF	424	\$95,000	Rodriguez, Paul
	Division 51	Total	\$135,000
Division 53 Wastewater - Cumberland			
Cumberland WW Pump Stations	41	\$20,000	Poulin, Charlene
	Division 53	Total	\$20,000

Fund Summary for 2019 (continued)

Subprogram	Subprogram #	Budget	Manager
Division 55 Wastewater - Windham Little Falls			
Windham - Little Falls WW System	180	\$580,000	Rodriguez, Paul
	Division 55 Total	\$580,000	
Division 57 Wastewater - Portland			
East End WWTF	21	\$5,800,000	Rodriguez, Paul
Portland WW Pump Stations - R&R	70	\$565,000	Rodriguez, Paul
	Division 57 Total	\$6,365,000	
Division 61 Wastewater - Gorham Village			
Gorham WW Pump Stations - R&R	60	\$20,000	Poulin, Charlene
	Division 61 Total	\$20,000	
Division 64 Wastewater - Joint Westbrook			
Westbrook/Gorham /Windham WWTF	416	\$1,790,000	Rodriguez, Paul
	Division 64 Total	\$1,790,000	
Division 66 Wastewater - Peaks			
Peaks Island R&R	423	\$20,000	Poulin, Charlene
	Division 66 Total	\$20,000	
Division 62 Wastewater - Westbrook			
Westbrook R&R	411	\$20,000	Poulin, Charlene
	Division 62 Total	\$20,000	
Total of All Divisions:			\$23,275,000

Financing Summary for 2019

In 2019, capital projects will be funded through bonds, bond anticipation notes and renewal and replacement (R&R) reserve withdrawals as described in the Capital Finance section.

Funding Source	Subprogram	Subprogram #	Budget
Bonds - Wastewater			
	Cape Elizabeth Pump Stations	52	\$15,000
	Portland Pump Stations	70	\$250,000
	Windham – Little Falls WW systems	180	\$560,000
	Westbrook/Gorham/Windham WWTF	416	\$1,500,000
	East End WWTF	21	\$5,275,000
	Total for: Bonds - WW		\$7,600,000
Bonds – Water			
	Water Main Replacement - Capital	43	\$7,500,000
	Gorham/Windham 407 Zone Improvements	307	\$2,500,000
	Total for: Bonds - Water		\$10,000,000
R&R – Wastewater			
	Cape Elizabeth WW Pump Stations – R&R	52	\$25,000
	Cape Elizabeth WWTF	424	\$95,000
	Cumberland WW Pump Stations – R&R	41	\$20,000
	East End WWTF	21	\$525,000
	Gorham WW Pump Stations – R&R	60	\$20,000
	Peaks Island R&R	423	\$20,000
	Portland WW Pump Stations – R&R	70	\$315,000
	SCADA/Process Control - Wastewater	177	\$350,000
	Westbrook WW Systems – R&R	411	\$20,000
	Westbrook/Gorham /Windham WWTF – R&R	416	\$290,000
	Windham - Little Falls WW System – R&R	180	\$20,000
	Total for: R&R - Wastewater		\$1,700,000

Financing Summary for 2019 (continued)

Funding Source	Subprogram	Subprogram #	Budget
R&R - Water			
	Facilities Improvements	68	\$300,000
	Meter Replacement and Leak Detection	63	\$300,000
	SCADA /Process Control - Water	110	\$50,000
	Technology Upgrade and Replacement	50	\$200,000
	Vehicle and Equipment Replacement	326	\$400,000
	Water Facilities Renewal and Replacement	122	\$300,000
	Water Hydrants Replacement	65	\$200,000
	Water Main Replacement	43	\$1,300,000
	Water Main Renewal - Seasonal Mains	56	\$25,000
	Water Services - Renew Domestic & Fire	61	\$600,000
	Water Storage Facility Maintenance & Upgrade	203	\$25,000
	Water System Redundancy (Looping) and Upsizing Dev	408	\$50,000
	Water Valve Replacement	53	\$200,000
	Water System Security	46	\$25,000
	Total for: R&R - Water		\$3,975,000
Grand Total			\$23,275,000

Subprograms with Pending Unscheduled Work

Subprogram Title	Subprogram #	Cost	Manager
<u>Division 20 Water - General</u>			
Watershed Land Acquisition	1	\$434,000	Twaddel, Norman
Watershed Land Conservation	2	\$100,000	Hunt, Paul
Total of All Divisions:		\$534,000	

Pending Unscheduled Work are projects that may occur in 2019.

Subprogram # 1 - Watershed land acquisitions occur if a buyer approaches the District to sell their property located in our watershed area.

Subprogram # 2- Contribute towards land conservation projects in the Sebago Lake Watershed in accordance with the Watershed Land Conservation Policy.

If projects are undertaken, the Board of Trustees will be requested to approve and the Capital Improvement Plan amended. The project funding has not been included in the 2019 Budget.

CIP Operating Fund Summary Impact

Project/Item	Proj #	Total Budget	2018	2019	2020	2021	2022	Expense	
10 - Allocation									
Facilities Improvements	68	\$300,000							
Facilities upgrades RR						\$50,000			
*Douglass St. roof replacement - Phase 2						\$250,000			
Meter Replacement and Leak Detection	63	\$300,000							
Technology Upgrade and Replacement	50	\$200,000							
Vehicle and Equipment Replacement	326	\$400,000							
					\$1,200,000				
20 - Water - General									
Gorham/Windham 407 Zone Improvements	307	\$2,500,000							
*407 Zone Tank Construction			\$2,500,000	\$250,000	\$243,750	\$237,500	\$231,250	\$225,000	Debt Service
SCADA /Process Control - Water	110	\$50,000							
Water Distribution Valve Replacement	53	\$200,000							
Water Facilities Renewal and Replacement	122	\$300,000							
*SLWTF Raw Water pump #1						\$170,000			
*Upgrade SLWTF Standby Generator Emissions			\$100,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	Savings**
Water Facilities RR						\$30,000			
Water Hydrants Replacement	65	\$200,000							
Water Main Renewal - Seasonal Mains	56	\$25,000							
Water Main Replacement - Capital	43	\$8,800,000	\$7,500,000	\$880,000	\$858,000	\$836,000	\$814,000	\$792,000	Debt Service
Water Services - Renew Domestic & Fire	61	\$600,000							
Water Storage Facility Maintenance & Upgrade	203	\$25,000							
Water System Redundancy (Looping) and Upsizing dev	408	\$50,000							
Water System Security	46	\$25,000							
					\$12,775,000				

CIP Operating Fund Summary Impact

Project/Item	Proj #	Total Budget	2018	2019	2020	2021	2022	Expense	
50 - Wastewater - General									
SCADA/Process Control - Wastewater	177	\$350,000							
*SCADA Radio Modem Rplcement Project - Phase 2			\$350,000	\$35,000	\$34,125	\$33,250	\$32,375	\$31,500	Debt Service
			\$350,000						
51 - Wastewater - Cape Elizabeth									
Cape Elizabeth WWTF	424	\$95,000							
Cape Elizabeth WWTF R&R			\$25,000						
*Rotary Drum Thickener Rehab			\$20,000						
*RAS/WAS Piping replacement			\$50,000						
Cape Elizabeth Pump Stations	52	\$40,000							
Cape Elizabeth Pump Station R&R			\$25,000						
Maiden Cove Pump Station Upgrades (Design)			\$15,000	\$750	\$725	\$700	\$675	Debt Service	
			\$135,000						
53 - Wastewater - Cumberland									
Cumberland WW Pump Stations - R&R	41	\$20,000							
Cumberland WW Pump Stations - R&R			\$20,000						
55 - Wastewater - Windham Little Falls									
Windham - Little Falls WW System R&R	180	\$580,000							
*Depot Street Pump Station - Phase1			\$560,000	\$32,000	\$31,200	\$31,200	\$31,200	\$31,200	Debt Service
Windham R&R			\$20,000						
			\$580,000						
57 - Wastewater - Portland									
East End WWTF	21	\$5,800,000							
EEWWTF - R&R			\$75,000						
*Process Gate Automation			\$75,000						
*Boiler Replacement			\$300,000						
*HVAC Upgrades: Third Floor			\$575,000						
*Nitrogen Monitoring Instrumentation			\$75,000						
*Primary Carifier Rehab			\$750,000	\$75,000	\$73,125	\$73,125	\$73,125	\$73,125	Debt Service
*EEWWTF/NEPS Backup Power Upgrade			\$3,950,000	\$395,000	\$385,125	\$375,250	\$365,375	\$355,500	Debt Service

CIP Operating Fund Summary Impact

Project/Item	Proj #	Total Budget	2018	2019	2020	2021	2022	Expense
Portland WW Pump Stations	70	\$565,000						
Stroutwater Pump Station Upgrades- Phase 2		\$265,000	\$26,500	\$26,237	\$25,974	\$25,711	\$25,448	Debt Service
Baxter Blvd Pump Station Upgrades		\$250,000	\$25,000	\$24,375	\$23,750	\$23,125	\$22,500	Debt Service
Portland WW Pump Stations - R&R		\$50,000						
		\$6,365,000						
61 - Wastewater - Gorham Village								
Gorham WW Pump Stations	60	\$20,000						
Gorham WW Pump Stations - R&R		\$20,000						
		\$20,000						
62 - Wastewater - Westbrook								
Westbrook WW Systems	411	\$20,000						
Westbrook Pump Stations - R&R		\$20,000						
64 - Wastewater - Joint Westbrook								
Westbrook/Gorham /Windham WWTF R&R	416	\$1,790,000						
Westbrook Gorham Windham WWTF R&R		\$50,000						
*Removal of BFP, Ancilliary Wiring and Controls		\$65,000						
*Redundant Polymer Makedown		\$75,000						
*Sludge Storage Odor Control		\$750,000						
*Aeration and Secondary Clarifier Upgrade - Design		\$750,000	\$75,000	\$73,125	\$71,250	\$69,375	\$67,500	Debt Service
*Westbrook Dewatered Sludge Cake Discharge		\$100,000						
66 - Wastewater - Peaks								
Peaks Island R&R	423	\$20,000						
Peaks Island R&R		\$20,000						
		\$20,000						
		Total 2019 CIP	\$23,275,000					

* These projects are identified as Non Routine and were identified through comprehensive facility evaluations (CWSSP, CPE)

** Savings from participation in Demand Response and Forward capacity programs

2019 Capital Improvement Program – 5 year Plan

Division	Project #	2019	2020	2021	2022	2023	Total
Division 10 - Allocation							
Technology Upgrade and Replacement	3038	200,000	200,000	200,000	200,000	200,000	1,000,000
Vehicle and Equipment Replacement	3041	400,000	400,000	400,000	400,000	400,000	2,000,000
Meter Replacement and Leak Detection	3046	300,000	300,000	300,000	300,000	300,000	1,500,000
Facility Upgrades	3050	50,000	50,000	300,000	300,000	300,000	1,000,000
Douglass Street Roof replacement - Phase 2 of 3	3051	250,000					250,000
Douglass Street Roof replacement - Phase 3 of 3	3053		250,000				250,000
HVAC Improvements -Phases 1, 2 ,3	3054			325,000	325,000	325,000	975,000
Comprehensive Asset Management Strategic Plan	3071		750,000				750,000
Division 10 - Allocation Total		1,200,000	1,950,000	1,525,000	1,525,000	1,525,000	7,725,000
Division 20 - Water							
New 407 Zone Tank Design/Construction	3004	2,500,000					2,500,000
SLWTF Intake Screening Phase 1	3007		3,000,000				3,000,000
Steep Falls Finished Water Piping Replacement	3008		125,000				125,000
SLWTF Raw Water Pump #1	3030	170,000					170,000
Upgrade 1 SLWTF SB Gen Emissions	3031	100,000					100,000
Water Facilities R&R	3032	30,000	50,000	100,000	100,000	100,000	380,000
Ozone Generator Cooling - Automate temp control	3033		105,000				105,000
Miscellaneous Control Project Upgrades	3058	50,000	50,000	50,000	50,000	50,000	250,000
SLWTF SCADA PC Replacement Project	3061		18,000				18,000
SLWTF SCADA Server Replacement Project	3062		16,000				16,000
407 Zone North Transmission Improvements	3066		1,000,000				1,000,000
407 Zone Reliability Improvements	3067				1,600,000		1,600,000
407 Zone Reliability Improvements	3068					2,000,000	2,000,000
SLWTF - Emergency Storage/Transmission- Design	3069				600,000		600,000
SLWTF - Emergency Storage/Trans - Construction	3070					6,000,000	6,000,000
Water Hydrant Replacement	3072	200,000	200,000	200,000	200,000	200,000	1,000,000
Water Main Replacement - Seasonal Mains	3077	25,000	25,000	25,000	25,000	25,000	125,000
Water Services - Renew Domestic and Fire	3082	600,000	600,000	600,000	600,000	600,000	3,000,000
Water Valve Replacement	3087	200,000	200,000	200,000	200,000	200,000	1,000,000
Water System Redundancy (looping), Upsizing	3092	50,000	50,000	50,000	50,000	50,000	250,000
Water System Security Improvements	3097	25,000	25,000	25,000	25,000	25,000	125,000
Water Storage Facility Maintenance & Upgrade	3102	25,000	50,000	0	50,000	50,000	175,000
Water Tank Maintenance- Gorham Tank Rehab	3104			450,000			450,000
WMR -Main Street, GO - School St. to Husky	3107	1,300,000					1,300,000
WMR - Drew, Ship Channel, Danforth, Leighton SP	3108	850,000					850,000
WMR -Somerset & Preble St. - PO	3109	1,400,000					1,400,000
WMR- Walton, Mackworth, Irving, Sawyer,Hersey - PO	3110	2,800,000					2,800,000
WMR-Brighton Ave/ Deering /Falmouth/ Bedford-PO	3111	900,000					900,000
WMR- Brighton, Wessex to Dorsett -PO	3112	750,000					750,000
WMR-Gray Road - FA	3113	500,000					500,000
WMR- Route 9- Culvert replacement - CU	3114	75,000					75,000
WMR=Depot Street, 202 to High - WI	3115			1,000,000			1,000,000
WMR -Allison Way and 30' Trans valve r	3116		750,000				750,000

2019 Capital Improvement Program – 5 year Plan (continued)

Category	Project #	Priority	2019	2020	2021	2022	2023	Total
WWR -College Street, School to Husky Drive -GO	3117			750,000				750,000
WWR - Veranda Street Wordsworth to Martin Pt.	3118			500,000				500,000
WWR -Great Diamond to Little Diamond Sub-main - PO	3119			500,000				500,000
WWR- Various Main Replacements	3121		225,000	3,500,000	7,000,000	7,000,000	7,000,000	24,725,000
Division 20 - Water Total			12,775,000	12,514,000	8,700,000	10,500,000	16,300,000	60,789,000
Division 50 -General								
SCADA Radio Modem Replacement Project - Phase 3	3125			300,000				300,000
SCADA Radio Modem Replacement Project - Phase 2	3126		350,000					350,000
Division 50 -General Total			350,000	300,000				650,000
Division 51 - Cape Elizabeth Wastewater								
Cape WWTF Pinpoint Evaluation (Advanced Treatment)	3000			50,000				50,000
Maiden Cove PS Upgrades	3002		15,000	430,000				445,000
Ottawa Rd PS Upgrades	3005				280,000			280,000
RAS/WAS Piping	3028		50,000					50,000
Rotary Drum Thickener Rehabilitation	3029		20,000					20,000
Cape Elizabeth WWTF- R&R	3129		25,000	25,000	25,000	25,000	25,000	125,000
Cape Elizabeth Pump Station R&R	3130		25,000	25,000	25,000	25,000	25,000	125,000
Stonegate South Upgrades	3168						90,000	90,000
Algonquin PS Upgrades	3169						135,000	135,000
Peabbles Cove PS Upgrades	3170						90,000	90,000
Phase 2 Improvements	3188						175,000	175,000
Boiler Upgrade/Replacement	3189					100,000		100,000
Division 51 - Cape Elizabeth Wastewater Total			135,000	530,000	330,000	150,000	540,000	1,685,000
Division 53 - Cumberland Wastewater								
Cumberland WW Pump Stations - R&R	3136		20,000	20,000	20,000	20,000	20,000	100,000
Sonty Ridge Pump Replacement	3171				30,000			30,000
Ocean Terrace PS Pump Replacement, Bypass	3172				50,000			50,000
Ferne Lane PS Pump Replacement	3173				30,000			30,000
Ledge Rd PS Upgrades	3174				75,000			75,000
Brookside PS Pump and Electrical Upgrades	3175				35,000			35,000
Cumberland Meadows PS Upgrades	3176				85,000			85,000
Smalls Brook PS Upgrades	3177				95,000			95,000
Division 53 - Cumberland Wastewater Total			20,000	20,000	420,000	20,000	20,000	500,000
Division 55 - Windham Little Falls Was								
Windham- Little Falls WW System - R&R	3138		20,000	20,000	20,000	20,000	20,000	100,000
Windham - Depot Street Pump Station- Phase 1	3139		560,000				500,000	1,060,000
Division 55 - Windham Little Falls Wastewater Total			580,000	20,000	20,000	20,000	520,000	1,160,000
Division 57 - Portland Wastewater								
Stroudwater PS Upgrades Phase 2	3006		265,000					265,000
Dewatering System Odor Control Upgrade	3009			300,000				300,000
EEWWTF/NEPS Backup Power Upgrade	3010		3,950,000					3,950,000
Primary Clarifier Rehabilitation	3013		750,000					750,000
Main 12.4 kV Switchgear Upgrades	3014			1,600,000				1,600,000
Nitrogen Monitoring Instrumentation	3015		75,000					75,000
Plant Water System Upgrade	3016			250,000				250,000

2019 Capital Improvement Program – 5 year Plan (continued)

Category	Project #	Priority	2019	2020	2021	2022	2023	Total
HVAC Upgrades Third Floor	3017		575,000					575,000
Boiler Replacement	3018		300,000					300,000
Gravity Thickener #2 Rehabilitation	3019			250,000				250,000
Process Gate Automation	3020		75,000	50,000	50,000	50,000	50,000	275,000
Power Panel Upgrades	3021			75,000				75,000
Portable Wastewater Pump	3024			250,000				250,000
EEWWTF SCADA Server Replacement Program	3128			20,000				20,000
East End WWTF R&R	3133		75,000	75,000	75,000	75,000	75,000	375,000
Portland WW Pump Stations - R&R	3135		50,000	50,000	50,000	50,000	50,000	250,000
Baxter Blvd PS Upgrades - Construction	3143			1,950,000				1,950,000
Baxter Blvd PS Upgrades Design	3144		250,000					250,000
Lower Lot Paving	3145				150,000			150,000
Gravity Belt Thickener Replacement	3146					500,000		500,000
Secondary Clarifier Sludge Rake Replacement	3147						5,000,000	5,000,000
Return Sludge Piping Replacement	3148				450,000			450,000
HVAC Upgrades - Process Area	3149					330,000		330,000
Influent Screen #2 and Conveyor	3151						300,000	300,000
Primary Sludge Pumping Upgrade/Rehabilitation	3153			250,000				250,000
Clarifier Ventilation	3156						1,250,000	1,250,000
Modeling and Flow Assessment	3162					50,000		50,000
Garrison St PS Upgrade to Submersible	3184				375,000			375,000
Congress St PS Upgrade to Submersible	3185				375,000			375,000
Westbrook St PS Upgrades	3186					100,000		100,000
India St PS Generator Upgrade	3187						300,000	300,000
Thickened Primary Sludge Pumping Rehabilitation	3201				250,000			250,000
Thickened Sludge Storage and Mixing Rehab	3202					350,000		350,000
Odor Control System Rehabilitation	3203						250,000	250,000
Division 57 - Portland Wastewater Total			6,365,000	5,120,000	1,775,000	1,505,000	7,275,000	22,040,000
Division 61 - Gorham Village								
Gorham WW Pump Station - R&R	3137		20,000	20,000	20,000	20,000	20,000	100,000
Gateway Commons PS Upgrades	3178					85,000		85,000
Park South PS Upgrades	3179					95,000		95,000
Briarwood PS Telemetry Upgrade	3180					75,000		75,000
Meadowland PS Telemetry Upgrade	3181					75,000		75,000
Division 61 - Gorham Village Wastewater Total			20,000	20,000	20,000	350,000	20,000	430,000
Division 62 - Westbrook								
CSO Master Plan Update	3163				75,000			75,000
Modeling Update	3164			25,000				25,000
Division 62 - Westbrook Wastewater Total				25,000	75,000			100,000
Division 64 - Joint Westbrook								
Westbrook Dewatered Sludge Cake Discharge	3001		100,000					100,000
Aeration and Secondary Clarifier Upgrade - Design	3022		750,000					750,000
Aeration and Secondary Clarifiers - Construction	3023			9,750,000				9,750,000
Sludge Storage Odor Control	3025		750,000					750,000
Redundant Polymer Makedown	3026		75,000					75,000
Removal of BFP, Ancillary Wiring and Controls	3027		65,000					65,000
Westbrook SCADA Server Replacement Program	3127			20,000				20,000
Westbrook Gorham Windham WWTF R&R	3132		50,000	50,000	50,000	50,000	50,000	250,000
Westbrook WW Systems R&R	3134		20,000	20,000	20,000	20,000	20,000	100,000
Plant Water System Rehab/Controls	3159					75,000		75,000

2019 Capital Improvement Program – 5 year Plan (continued)

Category	Project #	Priority	2019	2020	2021	2022	2023	Total
Influent/Septage Screening	3160				650,000			650,000
Access Road and Parking Lot Resurfacing	3190					100,000		100,000
Division 64 - Joint Westbrook Wastewater Total			1,810,000	9,840,000	720,000	245,000	70,000	12,685,000
Division 66 - Peaks Island								
Peaks Island R&R	3131		20,000	20,000	20,000	20,000	20,000	100,000
Stormwater Piping Rehabilitation	3161						50,000	50,000
Aeration System Upgrade	3192						250,000	250,000
Decanter and Valve Replacement/Refurbishment	3193						150,000	150,000
SBR B Influent Valve Replacement	3194				30,000			30,000
Division 66 - Peaks Island Wastewater Total			20,000	20,000	50,000	20,000	470,000	580,000
GRAND TOTAL			23,275,000	30,359,000	13,635,000	14,335,000	26,740,000	108,344,000

2018 CIP Progress Report

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2019</u>	<u>Unspent-appropriate to R&R</u>
<u>SCADA & Technology</u>				
SCADA / Process Control - Water	110	\$50,000	Completed, RR not spent	\$50,000
SCADA / Process Control - Wastewater	177	\$50,000	Completed, RR not spent	\$50,000
Technology Upgrades	50	4,000,000	ABC project is expected to be completed by 2020	
<u>Vehicle & Equipment Replacement</u>				
Vehicle & Equipment Replacement	326	\$500,000	Completed 2018	
<u>Wastewater Collection Systems & Pumping</u>				
Cape Elizabeth Pump Stations – R&R	52	\$30,000	Completed 2018	
Cape Elizabeth Pump Stations – Capital	407	\$900,000	Estimated to be completed in fall of 2019	
Cumberland WW Pump Stations – R&R	41	\$20,000	Completed 2018	
Gorham WW Pump Station – R&R	60	\$15,000	Completed 2018	
Portland CSO Mitigation	131	\$400,000	Completed by June 2019	
Portland Pump Station – R&R	70	\$100,000 \$110,000 \$125,000	On-going, R&R not spent Stroudwater PS. Not spent Completed 2018	\$50,000 \$80,000
Westbrook CSO Abatement	29	\$200,000	Construction of Screens – Postponed DEP considering adding to Master Plan update	\$200,000
Westbrook WW Systems – R&R	411	\$10,000	Completed, R&R not spent	\$10,000
Windham Little Falls System – R&R	180	\$20,000	Completed, R&R not spent	\$20,000
<u>Wastewater Treatment Facilities</u>				
Cape Elizabeth WWTF – Capital	418	\$1,100,000	On-going, Cape UV and Headworks Heating and Ventilation - to be completed in fall 2019	
East End WWTF – R&R	409	\$725,000	On- going, Multi-year projects	
East End WWTF – Capital	21	\$1,575,000	On- going, Multi -year projects	
Peaks Island R&R	423	\$55,000	On- going, Completed by year end	
Westbrook/Gorham/Windham WWTF – R&R	416	\$50,000	Completed	

2018 CIP Progress Report - continued

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2019</u>	<u>Unspent Re-appropriate to R&R</u>
<u>Water Distribution System Upgrades</u>				
407 Zone Pump Station Construction	307	\$400,000	407 north zone elevated storage tank replacement-design and land acquisition to be completed by 3 rd quarter 2019	
Meter Replacement and Leak Detection	63	\$300,000	Completed	
Water Valve Replacement	53	\$200,000	Completed	
Water Hydrants Replacement	65	\$200,000	Completed	
Water Main Renewal - Cast Iron Mains	43	\$9,864,000	Projects will be completed by June of 2019	
Water Main Renewal - Galvanized Mains	111	\$1,000,000	Completed	
Water Main Renewal - Seasonal Mains	53	\$25,000	Completed	
Water Services - Renew Domestic & Fire	61	\$600,000	Completed	
Water System Redundancy (Looping) and Upsizing	408	\$50,000	Completed	
<u>Water Facilities Program</u>				
Facilities Improvements	68	\$300,000	Completed	
Water Facilities Renewal and Replacement	122	\$150,000	On-going	
Water Storage Facility Maintenance & Upgrade	203	\$25,000	Completed, unspent	\$25,000
<u>Water Supply - Sebago Lake and Steep Falls</u>				
Water System Security	46	\$25,000	On- going	

Completed 2018 - This designates the subprogram is either completed or will be completed by first quarter of 2019.

Subprogram # 1 Watershed Land Acquisition

Division: Water - General
Funding: Land Reserve

Manager: Twaddel, Norman
Priority: Regulatory mandate

Description:

Purchase land with or without buildings in accordance with the Watershed Land Purchase Policy.

Justification / Impact:

Ownership of land, particularly along the shore of Sebago Lake within the two-mile limit is the surest way to control land use which affects Lower Bay water quality and body contact.

History:

The District has a long standing policy to purchase Sebago Lake water frontage and other critical land for the purpose of watershed protection and long-term maintenance of Sebago Lake water quality. We do not aggressively solicit land to buy, but we have made public our interest to purchase Watershed land and, in recent times, all purchases have resulted from seller initiated contacts.

Origin of the Subprogram:

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND	1 Watershed Protection Land Purchase	\$434,000
Total Cost, All Years:		\$434,000

Previous Years on CIP:

All since 1994

Related Projects:

None

Procurement Issues:

Purchase decisions are negotiated on the basis of professional real estate appraisals. Board of Trustees approval of individual purchases is required.

Eel Cove – Shorefront properties within the 2 mile limit left.
(Lanni/Porter purchased in 2007, Stanford in 2008 and Messenger 2017)



Subprogram # 2 Watershed Land Conservation

Division: Water - General

Manager: Hunt, Paul

Funding: Watershed Land Reserve

Priority: Regulatory mandate

Description:

Contribute towards land conservation projects in accordance with the Watershed Land Conservation Policy.

Justification / Impact:

There is a direct link between the degree to which a watershed is forested and the quality of water in the lakes and streams within it (AWWA, 2004). Conservation of forested land in perpetuity protects water quality, which benefits both customers of the Portland Water District and all other users of Sebago Lake.

History:

In 2007 the Portland Water District trustees adopted a policy to support measures to preserve Sebago Lake watershed land in perpetuity and to provide open space for lake-friendly public access. The District acknowledges that it is neither feasible nor necessary to own all land in the watershed. Instead the District cooperates and partners with organizations and individuals who seek to preserve and manage their watershed lands in a manner that protects water quality and therefore protects the health of drinking water consumers. In 2012, the policy was amended to allow for a contribution of up to 25% of the easement/acquisition value and a Standard Operating Procedure was developed for assessing projects.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND 2	Watershed Land Conservation	\$100,000
Total Cost, All Years:		\$100,000

Previous Years on CIP:

None

Related Projects:

Subprogram #1 – Watershed Land Acquisition

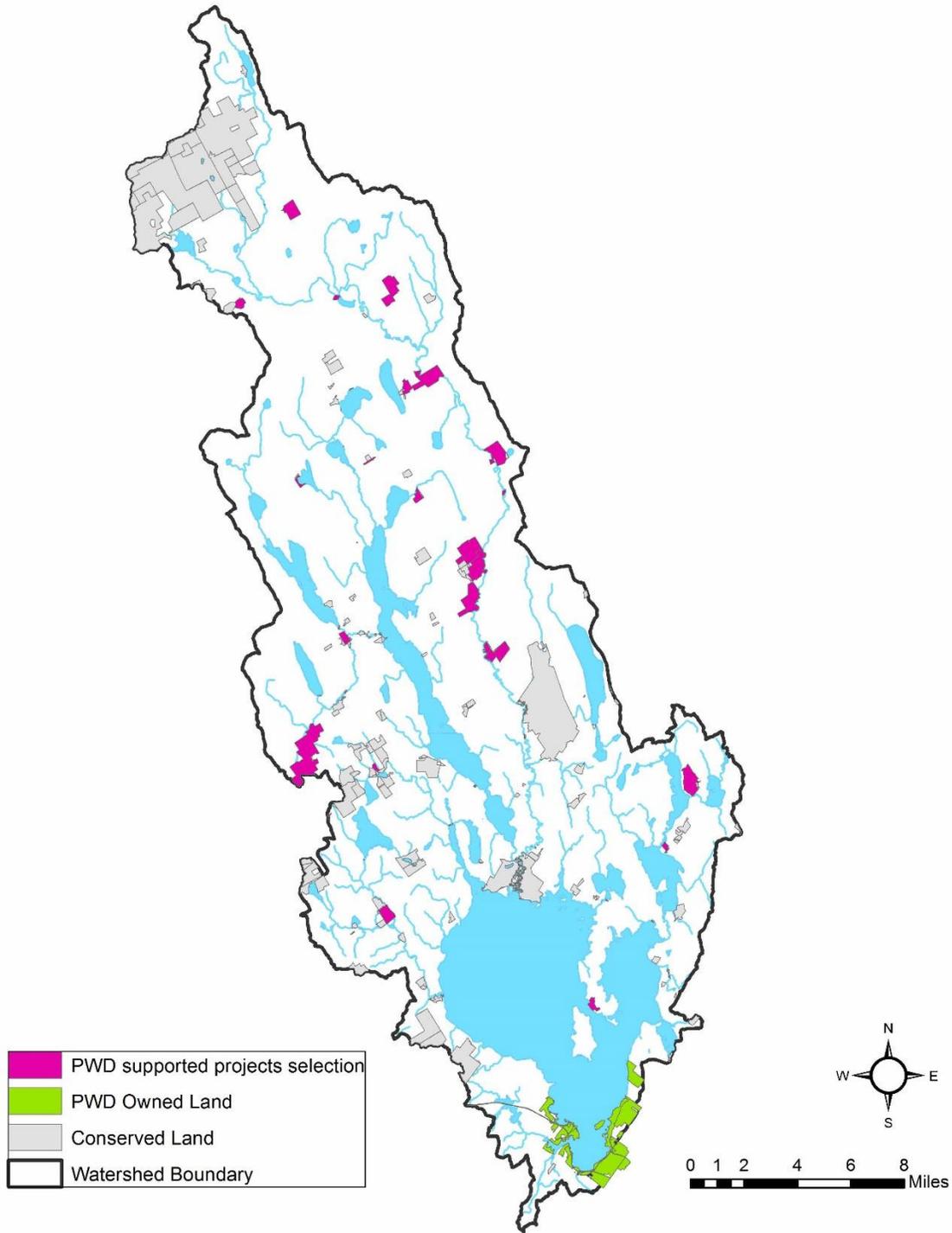
Procurement Issues:

Project contributions are recommended by staff based on a formula. Board of Trustees approval of contributions is required.

**Summary of Watershed Conservation Projects 2008-2017 – 3798 Acres Conserved –
District’s contribution \$511,000**

Project	Town	Acres	Year	Contribution
Hague	Waterford	350	2008	\$5,000
Little Moose Pond	Waterford	23	2009	\$500
Watkins	Waterford	690	2011	\$9,250
Camp Wawenock	Raymond	60	2010	\$10,000
Tenny River	Raymond	28	2012	\$5,000
Hague Farmstead	Waterford	88	2012	\$1,900
Perley Mills	Bridgton/Denmark	800	2013	\$50,000
Maple Ridge	Harrison	35	2013	\$5,880
Moon Valley	Harrison	14	2013	\$5,510
Flint Farm	Albany Township	156	2013	\$7,600
Perley Pond/NW River	Sebago	150	2014	\$33,600
Crooked River Watershed Forestland	Harrison/Otisfield	791	2014	\$268,899
Cummings Parcel	Harrison	10	2014	\$5,000
Stanley Parcel	Waterford	21	2015	\$1,575
Raymond Community Forest	Raymond	350	2014	\$38,944
Whitney Pond	Stoneham	70	2015	\$36,860
Proctor Pond	Albany Township	54	2015	\$9,000
Howe Woodlot	Waterford	40	2017	\$3,200
Fogg Lot	Otisfield	68	2017	\$13,600

Conserved Land in the Sebago Lake Watershed



Subprogram # 18**SLWTF Intakes - Replace Mechanical Screens****Division:** Water - General**Manager:** Johnson, Gordon**Funding:** Bonds - Water**Priority:** Routine replacement**Description:**

This project involves selecting and installing a screen system to replace the existing screens in service at the intakes on Sebago Lake. The present systems use two travelling screens with backwash at each location with three sets of hand screens at the 1925 Intake and two sets of hand screens at the 1952 Intake.

Justification / Impact:

The existing equipment is approaching 50 years old and is basically worn out. The new equipment will be chosen to automate the screening process as much as possible to minimize operator time and reduce/prevent fish breakthrough.

History:

The intake screens were supposed to be retired after SLWTF start-up. Manual screens, designed for the inlet channel of the ozone contactor, were supposed to replace the need for the ones at the intakes. Unfortunately, a method for washing the screens was not designed into the facility. Many attempts were made to use the inlet screens before deciding to continue the use of the intake screens.

Origin of the Subprogram:

The hand and travelling screens at the intake buildings were installed in the early 1950's. They are past their expected lifespan. Present washing procedures are labor intensive, requiring nine to fifteen labor hours per week. We have experienced small fish getting by the screens and showing up in the clearwell. The ozone and chlorination process kills the fish, but we do not want to let them escape into the system.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2020 - Bond 3007	Replace Mechanical Screens	\$3,000,000
Total Cost, All Years:		\$3,000,000

Previous Years on CIP:

1998 to present

Related Projects:**Procurement Issues:**

Internal engineering services followed by competitive proposals for purchase and installation.

Subprogram # 21**East End WWTF Upgrade****Division:** Wastewater – Portland**Manager:** Rodriguez, Paul**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility**Description:**

The Portland Comprehensive Plant Evaluation (CPE) Program completed in 1998 identified a long range series of plant system upgrades needed to replace obsolete equipment and systems to meet future operating and regulatory conditions. This CPE Upgrade Program represents the phased implementation of that long range program. The inclusion of the initial phase of odor control was requested by the City of Portland and included in this Program. This Program continues to provide for the replacement of outdated and obsolete systems, including the primary clarifier sludge collection equipment and sludge dewatering system.

Justification / Impact:

The current facility is forty-years old and many of the original systems are worn out and/or functionally obsolete. Implementation of the program shown below allows the District to meet current and future regulatory requirements while obtaining the operating cost advantages of new technology. The impact and benefit of this program is reduced operating cost, system reliability and the ability to meet permit conditions.

History:

This implementation program began with the Woodard & Curran CPE completed in 1998. Wright-Pierce and CH2M-Hill were retained to implement the initial phases of this on-going program. Since then, work has been completed on the influent channels, screening, grit removal, primary sedimentation basins, odor control and secondary clarifiers. Construction of the new dewatering system, including the Fournier Rotary Presses, was completed in 2005. Fine bubble aeration system replaced the old mechanical air system in 2017.

Origin of the Subprogram:

The aging facility and increasing difficulty to achieve reliable operations that consistently meet license requirements led to the CPE. This implementation program is a direct result of the CPE.

Budget Summary:

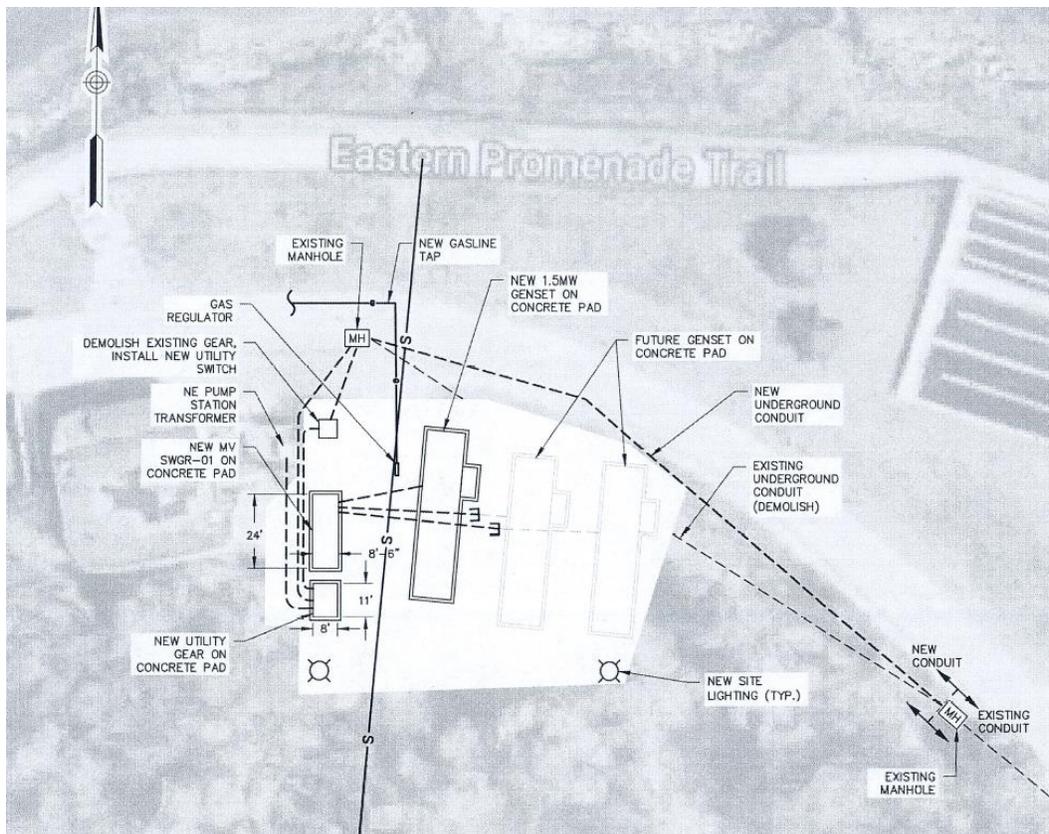
Budget year	Project	Budget Year Cost
2019 - SRF	3010 EEWWTF/NEPS Backup Power Upgrade	\$3,950,000
2019 - Bond	3013 Primary Clarifier Rehabilitation	\$ 750,000
2019 - RR	3015 Nitrogen Monitoring Instrumentation	\$ 75,000
2019 - SRF	3017 HVAC Upgrades Third Floor	\$ 575,000
2019 - RR	3018 Boiler Replacement	\$ 300,000
2019 - RR	3020 Process Gate Automation	\$ 75,000
2019 - RR	3133 East End WWTF – R&R	\$ 75,000
2020 - RR	3019 Gravity Thickener # 2 Rehabilitation	\$ 250,000
2020-23 - RR	3020 Process Gate Automation	\$ 200,000
2020-23 - RR	3133 East End WWTF – R&R	\$ 300,000
2020 - RR	3016 Plant Water System Upgrade	\$ 250,000
2020 - RR	3021 Power Panel Upgrades	\$ 75,000
2020 - RR	3024 Portable Wastewater Pump	\$ 250,000
2020 - Bond	3009 Dewatering System Odor Control System Expansion	\$ 300,000

2020 - SRF	3014	Main 12.4 KV Switchgear Upgrade	\$1,600,000
2020 - RR	3153	Primary Sludge Pumping Upgrade/Rehabilitation	\$ 250,000
2021 - RR	3145	Lower Lot Paving	\$ 150,000
2021 - Bond	3148	Return Sludge Pump Piping Replacement	\$ 450,000
2021 - RR	3201	Thickened Primary Sludge Pumping Rehab.	\$ 250,000
2022 - Bond	3146	Gravity Belt Thickener Replacement	\$ 500,000
2022 - RR	3149	HVAC upgrades – Process Area	\$ 330,000
2022 - RR	3202	Thickened Sludge Storage and Mixing Rehab	\$ 350,000
2023 - Bond	3147	Secondary Clarifier Sludge Rake Replacment	\$5,000,000
2023 - RR	3151	Influent Screen #2 and Conveyor	\$ 300,000
2023 - Bond	3156	Clarifier Ventalition	\$1,250,000
2023 - RR	3203	Odor Control System Rehab.	\$ 250,000
Total Cost, All Years:			\$18,105,000

Previous Years on CIP: 1999 to present

Related Projects:

Procurement Issues: RFP for engineering services. Construction services will be low bid.



Site Plan for 2019 proposed EEWTF/Northeast PS Backup Power Upgrade Project

Subprogram # 29**Westbrook CSO Abatement****Division:** Wastewater - Westbrook**Manager:** Poulin, Charlene**Funding:** Bonds - Wastewater**Priority:** Regulatory mandate**Description:**

This project contemplates funding and programming the design and construction of projects recommended in a study that was completed by Woodard & Curran and Brown & Caldwell. The purpose of the study was to update the Westbrook CSO Master Plan.

Justification / Impact:

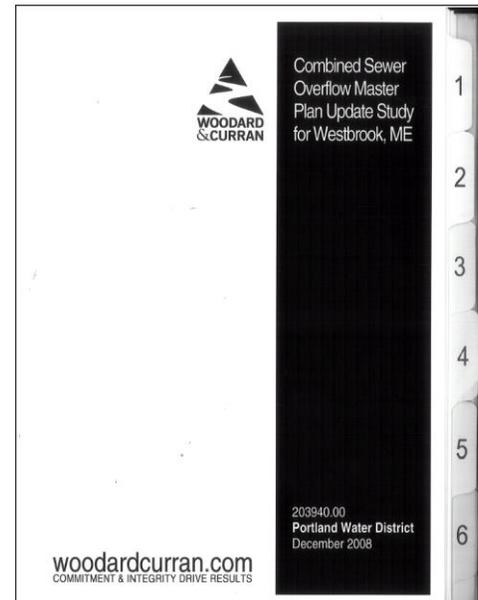
The District, City of Westbrook, and the DEP agreed that an upgrade to the existing CSO Master Plan was favored over work previously scheduled for the sewer between Brown and King Streets. The Westbrook/Gorham WWTF license was renewed in 2006. Written into the new license was a requirement for the District to submit a CSO Master Plan update and abatement schedule on or before December 31, 2008. This was completed on time and submitted to DEP for their approval.

History:

King Street/Brown Street sewer work was put aside in lieu of updating the Westbrook CSO Master Plan. Project awarded to Woodard and Curran/Brown and Caldwell. Updated Master Plan due on or before 12/31/08 for Department review and approval.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2020	3164 Modelining Update	\$ 25,000
2021	3163 CSO Master Plan Update	\$ 75,000
PEND	2522 Construction of New Storage Facility	\$3,200,000
Total Cost, All Years:		\$3,300,000

Previous Years on CIP: 2000 to present**Related Projects:****Procurement Issues:****Weir at Warren Ave CSO**

Subprogram # 41**Cumberland WW Pump Stations - R&R****Division:** Wastewater - Cumberland**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This project provides for continual upgrade of the pumping stations located within the Cumberland wastewater system. In most cases the work involves pump and rail replacements along with control modifications.

Justification / Impact:

Physical assets require scheduled maintenance and eventual replacement. This program will provide a planned approach to the maintenance management of Cumberland's wastewater pump stations.

History:

This planned approach will assist maintenance and operations in moving towards a goal of predictive and preventative maintenance.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2019 - RR	3136 Cumberland WW Pump Stations - R&R	\$20,000
2020 - RR	3136 Cumberland WW Pump Stations - R&R	\$20,000
2021 - RR	3136 Cumberland WW Pump Stations - R&R	\$20,000
2021 - Bond	3171 Stony Ridge Pump Station Upgrades	\$30,000
2021 - Bond	3172 Ocean Terrace PS Pump Replacement, Bypass	\$50,000
2021 - Bond	3173 Ferne Lane PS Upgrade	\$30,000
2021 - Bond	3174 Ledge Rd PS Upgrades	\$75,000
2021 - Bond	3175 Brookside PS pump and Electrical Upgrades	\$35,000
2021 - Bond	3176 Cumberland Meadows PS Upgrades	\$85,000
2021 - Bond	3177 Smalls Brook PS Upgrades	\$95,000
2022 - RR	3136 Cumberland WW Pump Stations - R&R	\$20,000
2023 - RR	3136 Cumberland WW Pump Stations - R&R	\$20,000
Total Cost, All Years:		\$500,000

Previous Years on CIP: 2001 to present**Related Projects:****Procurement Issues:** RFP for engineering services. Construction services will be low bid.

Condition Assessment – Cumberland Pump Stations



2016 – Longmeadow P.S. installed in 1983 – condition rating was 3.26 - Upgrades included new SCADA and pump control panels, pumps, valves, and electrical work. New rating is 4.5

2014 Cumberland Pump Station Report

Station	Rating	Station Type	Address
Brookside PS (2015)	3.18 4.5	Sub Dup	14 Brookside Drive
Cumberland Meadows	3.63	Sub Dup	12 Red Mill Way
Drowne Rd.	4.93	Sub Dup	2 Baxter Lane
Fern Ln. PS	3.81	Sub Dup	26 Ferne Lane
Foreside Rd. PS	3.75	Canned	82 Foreside Road
Ledge Rd. PS	3.82	Sub Dup	23 Ledge Road Unit A
Longmeadow Dr. PS (2016)	3.65 4.5	Sub Dup	17 Longmeadow Road
Ocean Terrace PS	3.26	Canned	12 Ocean Terrace
Powell Rd. PS	3.73	Canned	5 Powell Road
Small Brook Crossing	3.43	Sub Dup	18 Crossing Brook Road
Stony Ridge PS	3.60	Sub Dup	29 Stony Ridge Road
Tuttle Rd.	3.80	Canned	229 Tuttle Road
Twin Brook	3.83	Sub Dup	185 Tuttle Road
Cumberland Average	3.72		
PWD Overall Average	3.47		

Subprogram # 43**Water Main Replacement****Division:** Water - General**Manager:** Johnson, Gordon**Funding:** Bonds - Water**Priority:** Routine replacement**Description:**

Renew, replace, upgrade and loop cast iron water mains using materials and sizing for current and future conditions. Approximately 20,000 feet is scheduled for yearly replacement.

Justification / Impact:

This is a cost saving and water quality improvement process. Mains selected for replacement use the same priority system as the Galvanized Main

Renewal Program: water quality complaints, leak frequency data, and municipal/state reconstruction projects.

Level of Service – Reliability Performance

Water main break frequency - 10 breaks per 100 miles

History:

Cast iron mains in sizes 2 inches and above had been a standard from the late 1800s until the introduction of Ductile Iron pipe in the late 1960s and early 1970s and PVC and HDPE pipe in the 1980s. The rigidity and lack of flexibility of cast iron has been attributed to failures such as frost movement, cross trenches, water hammers, contractor damages, as well as normal deterioration and corrosion through age. A percentage of these mains are unlined causing iron build up resulting in restricted flow and dirty water complaints. The District has a long term program to upgrade these mains.

Origin of the Subprogram:

The current list of projects is determined on the basis of water quality complaints, leak frequency data, age of main, and municipal/state reconstruction projects.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - Bond/RR 1693	Water Main Replacement – (See attached)	\$8,800,000
2020	1534 Water Main Replacement	\$7,000,000
2021	2663 Water Main Replacement	\$7,000,000
2022	2726 Water Main Replacement	\$7,000,000
2023	2726 Water Main Replacement	\$7,000,000
Total Cost, All Years:		\$30,000,000

Previous Years on CIP:

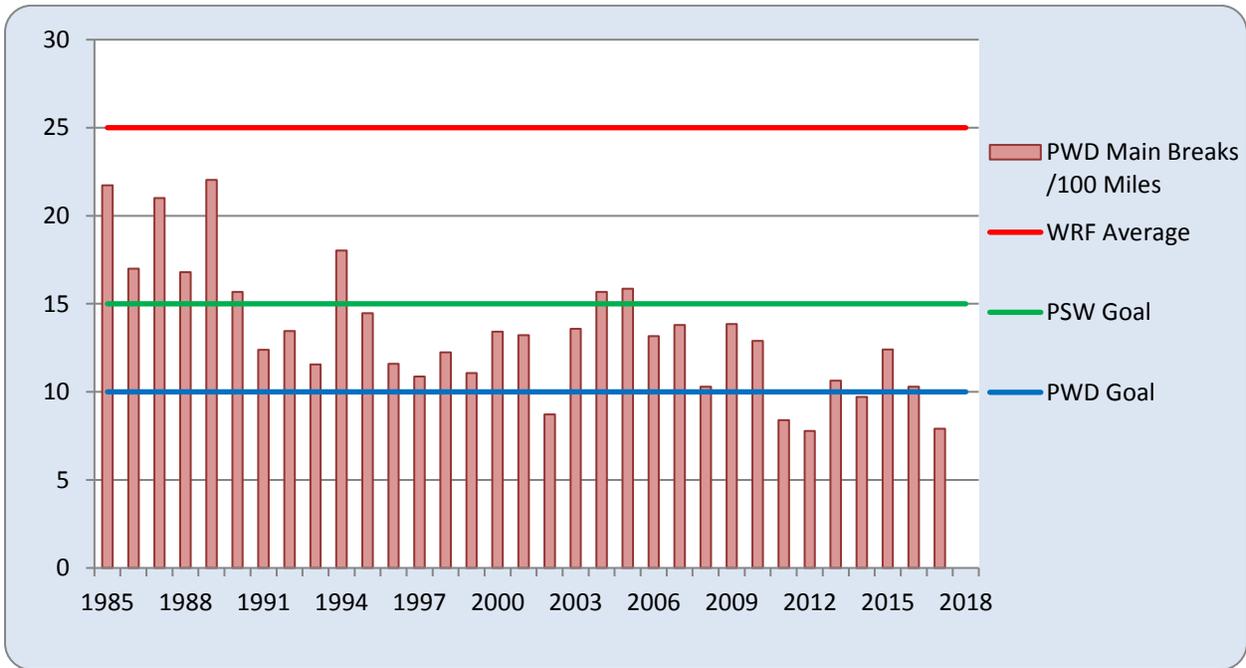
All

Procurement Issues:

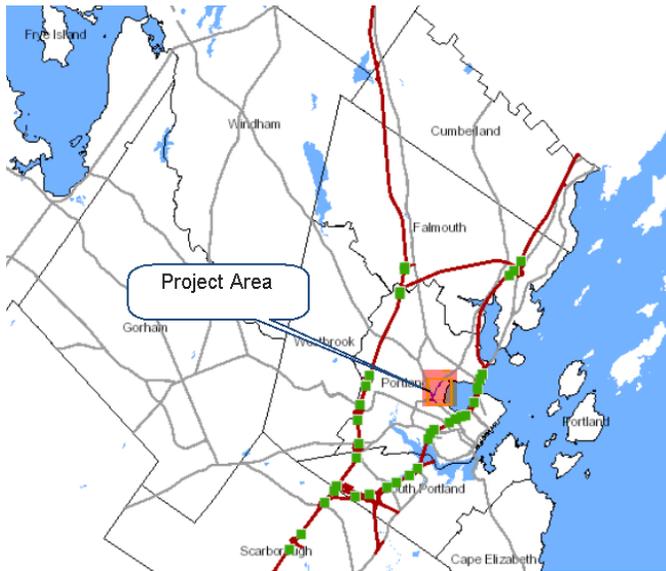
Projects are contracted out by the District or through a Municipality or MDOT. It is the District's intent to seek cost effective ways of partnering with the municipalities and state on various projects.

Subprogram # 43 Water Main Replacement (continued)

Water Main Replacement Projects - 2019	Districts	Cost Estimate	Pipe Footage	Contracting Partnering Agency
		\$ Value	Installed	
Main Street, Phase 1 ,2 - School St. to Husky Dr, School St o 202	GO	\$1,300,000	2600	MDOT
Drew, Ship Channel, Danforth, Preble and Leighton	SP	\$850,000	3000	South Portland
Somerset Street (Elm to Forest)	PO	\$700,000	1700	Portland
Preble, Somerset to Cumberland	PO	\$700,000	1700	PO CSO
Walton, Canco to Ocean and Mackworth, Ocean to Clifton, Irving, Sawyer	PO	\$2,800,000	8000	PO CSO
Brighton Ave/ Deering /Falmouth/ Bedford - roundabout	PO	\$900,000	2400	PACTS
Brighton, Wessex to Dorsett (\$400,000 - 1500 ft) Bid fall of 2018	PO	\$750,000	2400	PO CSO
Gray Road (Services, Hydrants, main relocations - culverts and storm drainage	FA	\$500,000	500	Falmouth
Route 9- Culvert replacement - Water main replacement		\$75,000	400	
Various water mains	CU	\$225,000	400	MDOT
2019 Totals		\$ 8,800,000		

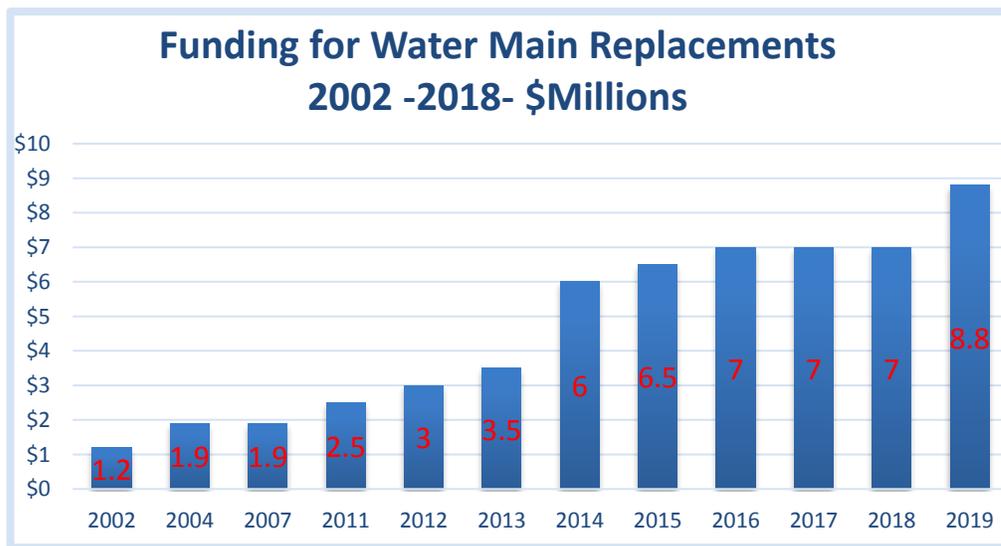


City of Portland – CSO Storm Water Separation Project – Mackworth Basin



The following old water mains will be replaced in conjunction with the City of Portland Combined Sewer Overflow (CSO) storm separation project.

- Walton Street, Canco to Ocean Ave. - 1600 feet of 6” 1888 cast iron
- Ocean Ave Walton to Forest- 2200 feet of 12”, 1911 cast iron (1 leak)
- Mackworth St. – Ocean to Clifton – 1300 feet of 6” 1932 cast iron (6 leaks)
- Irving Street – Ocean to Bryant – 600 feet of 6” 1914 cast iron
- Hersey Street – Ocean to Clifton – 1500 feet of 6” 1931 cast iron (5 leaks)
- Sawyer Street – Ocean to Irving – 700 feet of 6” 1914 cast iron



Subprogram # 46**Water System Security****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Security of facilities**Description:**

This program is to improve the physical security of the District's water facilities. The program supports installing and upgrading security measures on District property and facilities. These measures included perimeter fencing, signage, access control, cyber keys and locks, video surveillance and monitoring, security lighting and improved SCADA monitoring.

Justification / Impact:

The District has performed two Vulnerability Assessments (2003, 2015) and has been following the recommendations from these reports.

History:

In the fall of 2004 and summer of 2005 fencing was installed on the East and West side of the lower bay inside the 2 mile limit. This was funded through the CIP. In 2005 hatch covers along with alarms were installed over tank hatches and a cyberlock system was installed on all SCADA panels. This was funded by a grant from MEMA - Homeland Security. In subsequent years video surveillance and access control were expanded to all major facilities across the District along with continued improvements to perimeter fencing and access control.

**Origin of the Subprogram:**

The vulnerability assessment completed in March of 2003 indicated that physical protection of existing facilities could be improved. Many of those recommendations were completed and a new Vulnerability Assessment was completed in 2015 and new recommendations are now determining the water system security improvements.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	2421 Water System Security Improvements	\$25,000
2020 - RR	2511 Water System Security Improvements	\$25,000
2021 - RR	2603 Water System Security Improvements	\$25,000
2022 - RR	2668 Water System Security Improvements	\$25,000
2023 - RR	2731 Water System Security Improvements	\$25,000
Total Cost, All Years:		\$125,000

Previous Years on CIP: 2004 to present**Related Projects:****Procurement Issues:** Standard purchasing procedures will apply.

Subprogram # 50**Technology Upgrade and Replacement**

Division: Allocation
Funding: R & R - Water

Manager: Davis, Chad
Priority: Routine replacement

Description:

PWD has made a commitment to using technology as a means of operating more efficiently. This project is therefore an ongoing one. Project crosses all department lines and major processes. Focus is on establishing and maintaining a stable reliable network and databases to support PWD decision making, planning, budgeting and daily work activities. Project must also plan for growth and adaptation as new technology solutions become feasible.

Justification / Impact:

While economic payback can be demonstrated for many of the line items in this project, replacement of obsolete facilities is also a factor in technology investment. A fast, secure, reliable network and databases impacts PWD ability to be proactive and competitive. Better available information that is timely supports a customer centric business perspective.

History:

Technology infusion into PWD began anew after EMA study in 1996 recommended the use of technology to reduce a competitive gap, improve customer service and operating efficiency. Early on a technology master plan was developed as a guide for our investments. Key development work focused on building a stable reliable network infrastructure, acquiring best fit software solutions and populating the associated databases and documenting standard operating procedures. Most of the work was done in team environments to ensure the technology solution met the needs of the target PWD employee group. The PWD network consists of a 206 PC/Laptop/Thin Client wide area network supported by 39 servers housing various applications and data sources supporting asset management, customer billing, financials, GIS, voice mail, email, and VoIP phone. Our network also supports over fifty employees in the field via a wireless data network. Technology advances and cost savings continue to influence the design and delivery of information to our employees and customers.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	3038 Technology Upgrades	\$200,000
2020 - RR	3038 Technology Upgrades	\$200,000
2021 - RR	3038 Technology Upgrades	\$200,000
2022 - RR	3038 Technology Upgrades	\$200,000
2023 - RR	3038 Technology Upgrades	\$200,000
Total Cost, All Years:		\$1,000,000

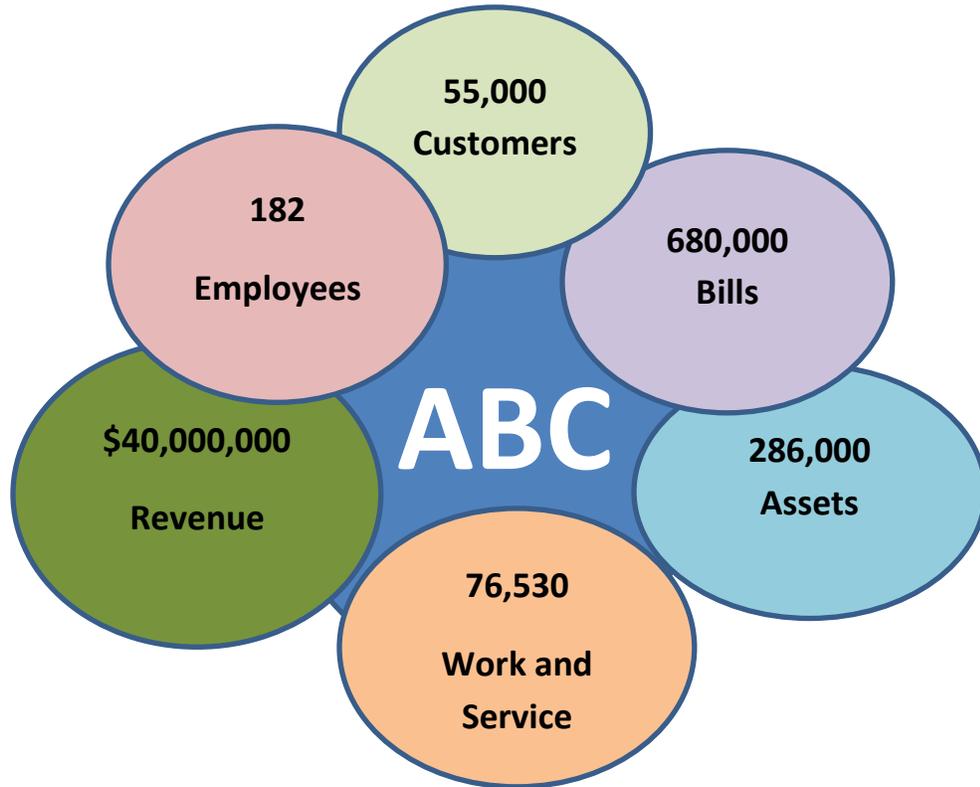
Previous Years on CIP:

All since 1996

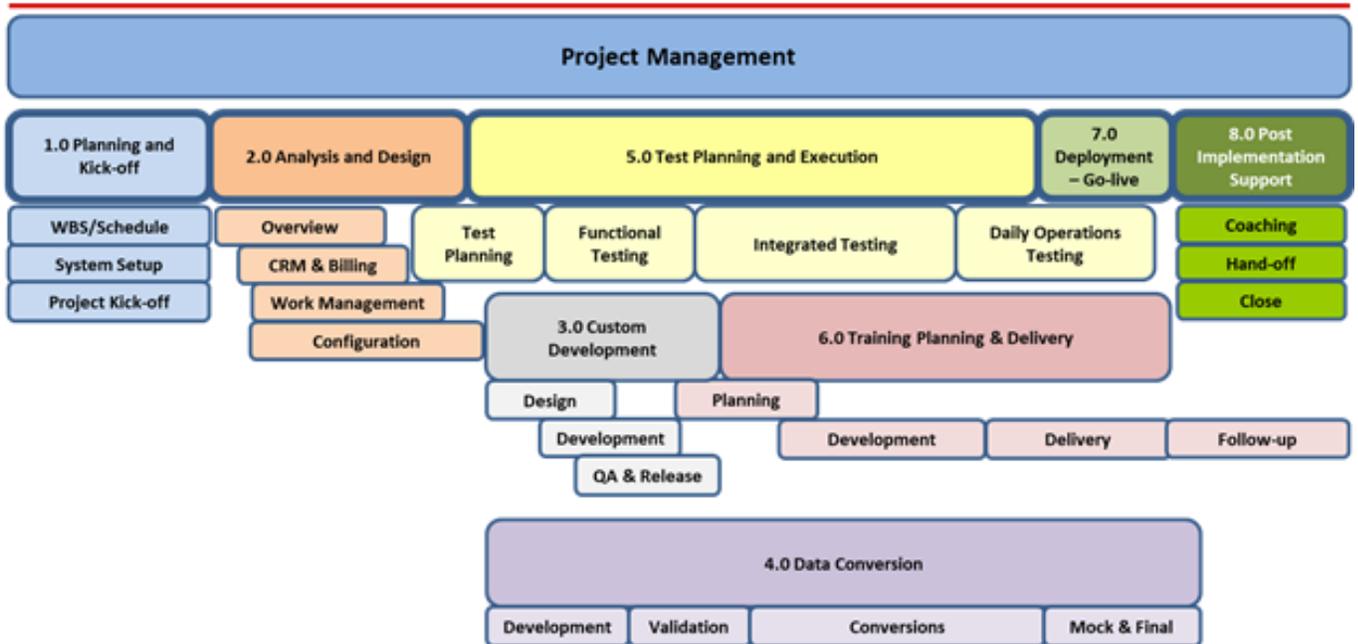
Related Projects:**Procurement Issues:**

Standard procurement procedures are used for major hardware, software and consulting purchases.

Assets - Billing - Customer Relations Project



Implementation Methodology



This 2018 project, CIP #50 project 2542 – Hansen System Replacement (Assets, Billing, Customer Relations) \$4,600,000 is expected to be on-line by 2020.

Subprogram # 52**Cape Elizabeth Pump Stations - R&R****Division:** Wastewater - Cape Elizabeth**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This program provides a planned approach for the replacement of obsolete equipment in Cape Elizabeth wastewater pump stations.

Justification / Impact:

The pump stations have reached the end of their useful design life and obsolete equipment must be replaced. Upgrades, including the addition of VFD's in some cases, will provide more pumping capacity, mitigate CSO activity, and provide some power savings.

History:

This planned approach will assist maintenance and operations in moving toward a goal of performing more predictive/preventative maintenance instead of emergency maintenance.



Ottawa Road Pump Station – Installed in 1976 – scheduled for upgrade in 2021

Origin of the Subprogram:**Budget Summary:**

<u>Budget year</u>	<u>Project</u>		
	<u>Budget Year Cost</u>		
2019 - RR	3130	Cape Elizabeth Pump Stations - R&R	\$ 25,000
2019 - Bond	3002	Maiden Cove PS Upgrades (Design)	\$ 15,000
2020 - Bond	3002	Maiden Cove PS Upgrades (Construction)	\$430,000
2020 - RR	2610	Cape Elizabeth Pump Stations - R&R	\$ 25,000
2021 - RR	3130	Cape Elizabeth Pump Stations - R&R	\$ 25,000
2021 - Bond	3005	Ottawa Rd PS upgrades	\$280,000
2022 - RR	3130	Cape Elizabeth Pump Stations - R&R	\$ 25,000
2023 - RR	3130	Cape Elizabeth Pump Stations - R&R	\$ 25,000
2023 - Bond	3168	Stonegate South PS Upgrade	\$ 90,000
2023 - Bond	3169	Algonquin PS Upgrade	\$135,000
2023 - Bond	3170	Peabbles Cove PS Upgrades	\$ 90,000
Total Cost, All Years:			\$1,165,000

Previous Years on CIP: 2005 to present

Related Projects: Subprogram #407

Condition Assessment – Cape Elizabeth Pump Stations

2014 Cape Elizabeth Pump Station Report			
Station	Rating	Station Type	Address
Algonquin Pump Station	3.30	Sub Dup	10 Waumbek Road
Birch Knolls	4.00	Sub Sing	19 Birch Knolls
Broad Cove No. Pump Station	3.79	Sub Tri	53 Broad Cove Road
Broad Cove So. Pump Station (2016)	3.15 4.5	Sub Dup	32A Broad Cove Road
Clifford	4.00	Sub Sing	886A Shore Road
Cragmoor North	3.65	Sub Dup	7A Cragmoor
Cragmoor South	3.30	Sub Sing	876A Shore Road
Cross Hill	3.65	Sub Dup	59 Wells Road
Little John (2018)	2.76	Packaged Dry Pit	7 Little John Road
Garden Ln Pump Station (2014)	5	Sub Dup	5 Garden Lane
Gull Crest - Public Works Building	3.08	Sub Dup	9 Cooper Drive
Gull Crest - Public Works Transfer Station	3.04	Sub Sing	21 Dennison Drive
Hunts Point	3.90	Sub Dup	1A Hunt's Point Road
Maiden Cove Pump Station Postponed until 2020	1.98	Ejection	5 Kenyon Lane
Mitchell Rd Pump Station (2017)	3.16	Sub Dup	468 Mitchell Road
Oakhurst Pump Station	2.94	Sub Dup	123 Oakhurst Road
Ottawa Rd. Pump Station	2.09	Packaged Dry Pit	14 Ottawa Road
Pachios	3.97	Sub Dup	880A Shore Road
Peabbles Cove Pump Station	3.31	Sub Dup	15 Peabbles Cove Road
Peabbles Point Pump Station	2.87	Sub Dup	56 Shipwreck Cove Road
Running Tide Pump Station	3.59	Sub Dup	13A Running Tide Road
Spurwink Pump Station	4.16	Canned	445 Spurwink Ave
Stonegate North (2016)	3.47 4.5	Sub Dup	30 Stonegate Road
Stonegate South	3.04	Sub Dup	8 Stonegate Road
Tall Pines East Pump Station	4.67	Sub Dup	225 Ocean House Road
Tall Pines Pump Station	2.58	Sub Dup	30 Tall Pine Road
Wildwood Pump Station (2015)	2.95 4.5	Sub Dup	34A Wildwood Drive
Cape Elizabeth Average	3.38		
PWD Overall Average (74 Stations)	3.47		

Subprogram # 53**Water Valve Replacement****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

Replacement of deteriorated valves in the distribution system.

Justification / Impact:

Replacement is determined and prioritized through data and workorders generated from our Distribution Valve Operation Program, Inspectors Valve Operation Reports, Leak Reports, Flushing Program Data, and the Distribution Maintenance Crews.

History:

Internal inspection of valves replaced has shown decay of the discs and spreaders which render the valves non-operational and ineffective in isolating a section of the distribution system. External inspection has shown corrosion of nuts and bolts, corroded operating nuts, and bent operating stems. Repacking and rebolting these valves has only provided a costly and temporary solution to the external portion of the valve. Replacement insures the valve will be up to standard and operational for many years to come with no required maintenance.

**Origin of the Subprogram:**

Our target is to replace 50 (+ or -) valves per year.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	Replace Distribution Valves	\$200,000
2020 - RR	Replace Distribution Valves	\$200,000
2021 - RR	Replace Distribution Valves	\$200,000
2022 - RR	Replace Distribution Valves	\$200,000
2023 - RR	Replace Distribution Valves	\$200,000
Total Cost, All Years:		\$1,000,000

Previous Years on CIP:

All

Related Projects:**Procurement Issues:**

Work is to be performed using District Staff, equipment, and materials.

Subprogram # 56**Water Main Renewal - Seasonal Mains****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

This portion of the Water Main Renewal Program is to replace depreciated Seasonal Surface mains with new Seasonal Surface mains. Approximately 2000 to 3000 feet of main are included annually in this general program.

Justification / Impact:

This program improves customer satisfaction with improved water flow and quality and reduces maintenance costs via new leak free materials.

History:

This is a long term program in which old galvanized seasonal water mains with capacity, water quality or maintenance problems are replaced on an as-needed basis.

Origin of the Subprogram:

Projects are initiated by monitoring customer complaints and leakage problems. When consistent problems are identified, the main is scheduled for replacement.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	Water Main Replacement - Seasonal Mains	\$25,000
2020 - RR	Water Main Replacement - Seasonal Mains	\$25,000
2021 - RR	Water Main Replacement - Seasonal Mains	\$25,000
2022 - RR	Water Main Replacement - Seasonal Mains	\$25,000
2023 - RR	Water Main Replacement - Seasonal Mains	\$25,000
Total Cost, All Years:		\$125,000

Previous Years on CIP:

All

Related Projects:**Procurement Issues:**

This work is accomplished by District Staff, equipment and material.

Subprogram # 60**Gorham WW Pump Stations - R&R****Division:** Wastewater - Gorham Village**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This is an ongoing project designed to maintain and improve Gorham wastewater pump stations. Modifications and upgrades will ensure adequate capacity, reliability and safety.

Justification / Impact:

Components of the older pump stations have reached their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely reduces the amount spent on operating and maintaining the equipment.

History:

This planned renewal and replacement will assist operations in moving toward a goal of performing more predictive and preventive maintenance instead of emergency maintenance.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2019 - RR	3137 Gorham WW Pump Stations - R&R	\$20,000
2020 - RR	3137 Gorham WW Pump Stations - R&R	\$20,000
2021 - RR	3137 Gorham WW Pump Stations - R&R	\$20,000
2022 - RR	3137 Gorham WW Pump Stations - R&R	\$20,000
2022 - Bond	3178 Gateway Commons PS Upgrades	\$85,000
2022 - Bond	3179 Park South PS Upgrades	\$95,000
2022 - Bond	3180 Briarwood PS Upgrades	\$75,000
2022 - Bond	3181 Meadowland PS Upgrades	\$75,000
2023 - Bond	3137 Gorham WW Pump Stations - R&R	\$20,000
Total Cost, All Years:		\$430,000

Previous Years on CIP:

2000 - present

Related Projects:**Procurement Issues:**

Primarily staff labor for installation using standard parts procured competitively.

Condition Assessment – Gorham Pump Stations

2014 Gorham Pump Station Report			
Station	Rating	Station Type	Address
Briarwood	3.78	Sub Dup	62 Briarwood Lane
Canterbury Pines	3.54	Sub Dup	14 Canterbury Pines Drive
Gateway Commons	3.83	Sub Dup	57 Clearview Drive
Glenwood Ave	3.59	Sub Dup	21 Glenwood Ave
Heartwood	3.81	Sub Dup	18 Caitlin Drive
Little River	4.08	Sub Dup	240B Mosher Road
Mallison	4.06	Sub Dup	35 Mallison Street
Meadowland Condo	3.72	Sub Dup	33A Joseph Drive
Old Dynamite	4.96	Sub Dup	14 Old Dynamite Way
Olde Canal	4.03	Sub Dup	338 Mosher Road
Park South Condo	3.98	Sub Dup	16 Kiara Lane
Running Spring/Southwoods	3.63	Sub Dup	50 Running Springs Road
Tink Drive	4.93	Sub Dup	46 Tink Drive(back)
University	3.95	Sub Dup	166 School Street
Woodlawn	3.76	Sub Dup	24 Tow Path Road
Gorham Average	3.98		
PWD Overall Average (74 Stations)	3.47		

Subprogram # 61**Water Services - Renew Domestic & Fire****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R – Water- Div. 20**Priority:** Routine replacement**Description:**

Replace obsolete galvanized, cast iron, cement lined iron, and 50 year old copper services with current materials and sized for future conditions.

Justification / Impact:

Replacement is determined and prioritized by water quality concerns, leaking conditions, street reconditioning, distribution main replacement, and area/report analysis through District Data. This Project is also coordinated with the various municipal paving projects in order to minimize future inflated municipal street opening costs and repairs.

History:

Galvanized and cast iron were common materials used in the installation of services from the early 1900s to the late 1940s. Copper was also used starting in the 1930s. The relatively inferior material of galvanized and cast iron are subject to rust related water quality and restricted flow problems from plugging as well as leak frequency from deterioration and corrosion. Older copper lines (50 years old + or -) are starting to show signs of leak failures from the old tube nut fittings used to couple fittings together. From a cost and end product comparison it is more efficient to replace than repair. The District has a long term program to replace and upgrade all sub standard services.

Origin of the Subprogram:

There are approximately 1,000 (1/2" to 2" size) galvanized, cement lined iron, and cast iron domestic services, and an additional 11,000 copper services installed prior to 1950. We also have 260 cast iron services installed prior to 1950. Our Project is to replace at least 300 services per year.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	Water Services Replacement	\$600,000
2020 - RR	Water Services Replacement	\$600,000
2021 - RR	Water Services Replacement	\$600,000
2022 - RR	Water Services Replacement	\$600,000
2023 - RR	Water Services Replacement	\$600,000
Total Cost, All Years:		\$3,000,000

Previous Years on CIP:

All

Related Projects:**Procurement Issues:**

Project to be performed using District Staff, equipment, and materials and contracted through our main replacement projects.

Subprogram # 63**Meter Replacement and Leak Detection****Division:** Allocation**Manager:** Wallace, Jim**Funding:** R & R – Water - Div. 10**Priority:** Routine replacement**Description:**

This work includes the cost to maintain the Long Service Meter Change program, and replacement of damaged meters. It also include the purchasing of leak detection and monitoring equipment. The District completed a change out all of its 50,000 meters to radio read system in 2009. The meters and batteries are expected to last 20 years for the smaller meters and less for the larger meters.

Justification / Impact:

This is a required program to meet PUC requirements and maintain accurate billing of customer accounts and account for lost water. Since long service meters typically under estimate the actual water flow, the Long Service Meter Change program is needed to ensure that the District receives all the revenue to which it is entitled.

History:

New terms and conditions have recently been instituted to increase the long service interval from 15 to 20 years.

Origin of the Subprogram:

These costs do not reflect the value of meters and radio reading devices which is contributed by customers.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	Meter Replacement and Leak Detection	\$300,000
2020 - RR	Meter Replacement and Leak Detection	\$300,000
2021 - RR	Meter Replacement and Leak Detection	\$300,000
2022 - RR	Meter Replacement and Leak Detection	\$300,000
2023 - RR	Meter Replacement and Leak Detection	\$300,000
Total Cost, All Years:		\$1,500,000

Previous Years on CIP:

All

Related Projects:

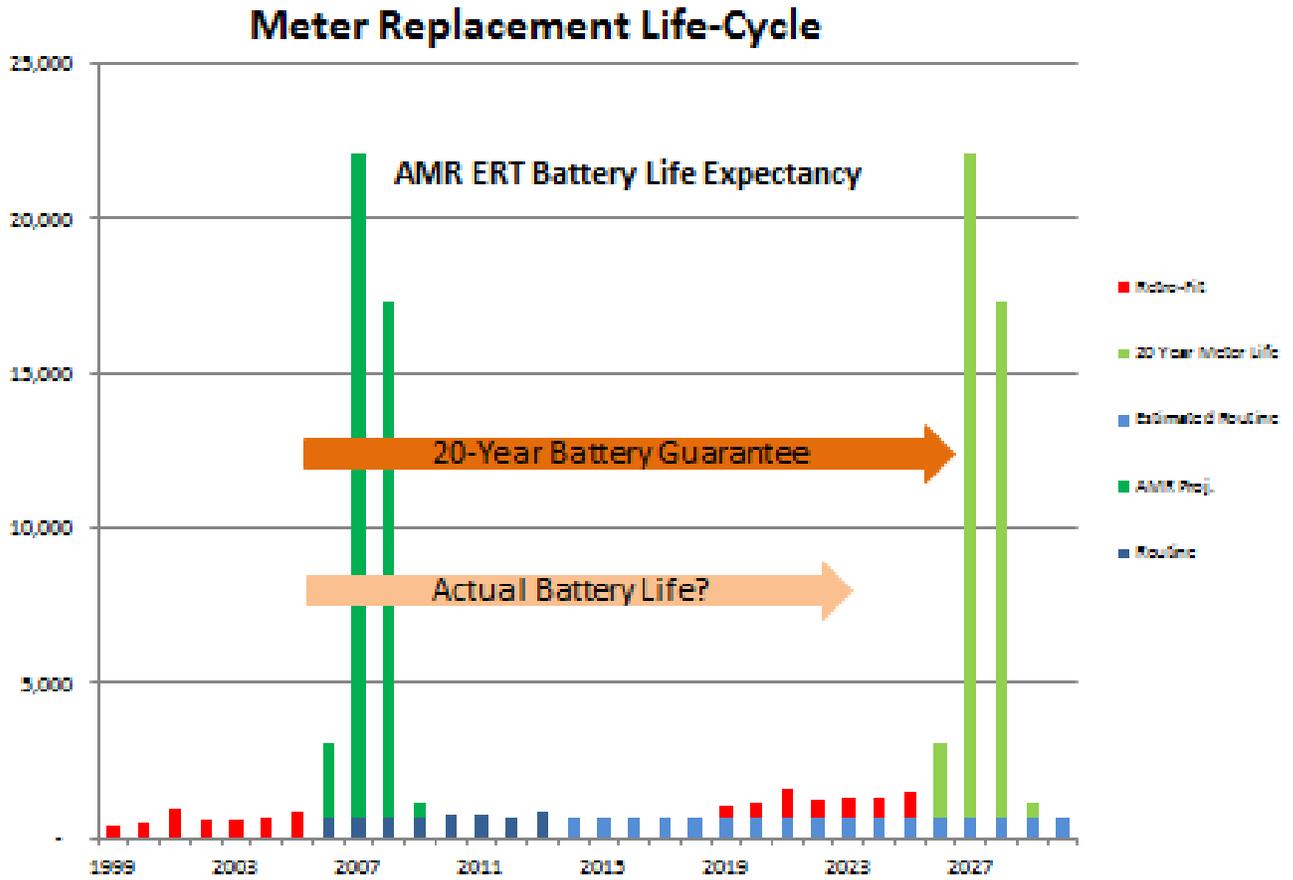
none

Procurement Issues:

Standard meter procurement procedures.



Subprogram # 63 Meter Replacement and Leak Detection



The above graph is projecting the life cycle of the District’s 50,000 meters.

The next major meter change-out is projected for 2026-2028.

Subprogram # 65**Water Hydrants Replacement****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

Replace and upgrade obsolete hydrants to meet current safety and operational standards, and to insure inventory parts availability for hydrant repairs.

Justification / Impact:

Replacement is determined and prioritized by: (1) hydrant failures (major damage and/or external leak,) (2) upgrade and replacement of obsolete sub standard hydrants based on (age - safety standards - repair parts availability - cost comparison to replace or repair,) (3) distribution main replacement program, (4) municipal and state reconstruction projects and (5) data gathered from the Hydrant Repair and Reconditioning Programs and the Winter Hydrant Inspection Program.

**History:**

The O&M Hydrant Repair/Reconditioning Programs and the Hydrant Winter Inspection Programs have been in place since the early 60s. These programs insure that our hydrants meet fire protection standards and provide direction for our C. I. P. Replacement Program. In recent times the ability to procure replacement parts for the 620 Matthews Post hydrants (Vintage late 1800s to the late 1940s) has become difficult or impossible. The 870 Darling B-50 hydrants (vintage early 1950s to early 1960s) require major internal rebuilding. Both hydrant makes are not traffic model hydrants and fail to have a sheer point to breakaway on impact. This failure results in costly repairs and replacements, and is unsafe in many highway standards (Deadly-Fixed-Objects Regulation).

Origin of the Subprogram:

Our project is focused on replacing and upgrading 75 hydrants per year over a twenty year replacement program of 1450 hydrants.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	Hydrant Replacement	\$200,000
2020 - RR	Hydrant Replacement	\$200,000
2021 - RR	Hydrant Replacement	\$200,000
2022 - RR	Hydrant Replacement	\$200,000
2023 - RR	Hydrant Replacement	\$200,000
Total Cost, All Years:		\$1,000,000

Previous Years on CIP:

All

Related Projects:**Procurement Issues:**

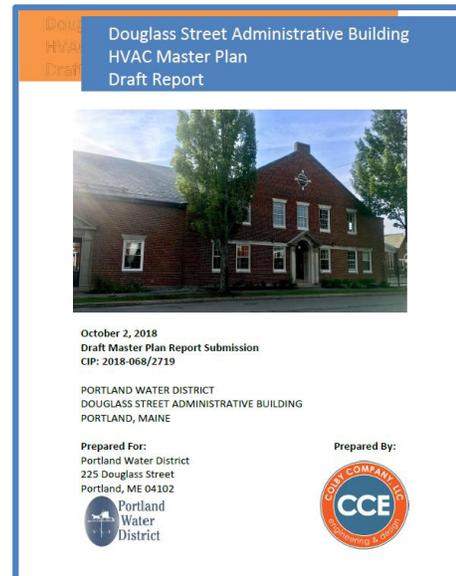
Project is performed using District staff, equipment, and materials.

Subprogram # 68**Facilities Improvements****Division:** Allocation**Manager:** Welch, Andrew**Funding:** R & R – Water- Div. 10**Priority:** Upgrade obsolete facility**Description:**

This project is a combination of numerous subprojects addressing the improvements and maintenance needs of the Douglass Street and Lake office facilities. Some of the projects shown in this years plan are ongoing projects while others are for the current plan year only.

Justification / Impact:

In order to maintain our office facilities in good condition and provide a suitable environment for our employees and customers, it is necessary to have a program to address any problem areas and additional requirements. In order to maintain the integrity of the facilities, problem areas such as leaks, indoor air quality, worn out or aging equipment and infrastructure needs to be addressed on an ongoing basis.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2019 - RR	3050 Facilities Upgrade R&R	\$ 50,000
2019 - RR	3051 Douglass Street Slate Roof replacement - Phase 2	\$250,000
2020 - RR	3050 Facilities Upgrade R&R	\$ 50,000
2020 - RR	2536 Douglass Street Slate Roof replacement - Phase 3	\$250,000
2021 - RR	3050 Facilities Upgrade R&R	\$300,000
2021 - Bond	3054 Douglass Street – HVAC Improvements ph 1	\$325,000
2022 - RR	3050 Facilities Upgrade R&R	\$300,000
2021 - Bond	3054 Douglass Street – HVAC Improvements ph 2	\$325,000
2023 - RR	3050 Facilities Upgrade R&R	\$300,000
2023 - Bond	3054 Douglass Street – HVAC Improvements ph 3	\$325,000
Total Cost, All Years:		\$2,475,000

Previous Years on CIP:

2000

Related Projects:**Procurement Issues:**



**2018 – Douglass Street –
2nd floor Engineering
Remodel**



**2018 – Douglass Street –
Breakroom remodel**

Subprogram # 70**Portland WW Pump Stations - R&R****Division:** Wastewater - Portland**Manager:** Poulin, Charlene**Funding:** R&R, Bonds – Wastewater- Div 57**Priority:** Routine replacement**Description:**

This program provides for a planned approach to the replacement of obsolete equipment in the Portland wastewater pump stations. This program provides for a planned approach to the replacement of obsolete equipment throughout the Portland Water District's Portland wastewater pump stations. Few improvements have taken place during the 25 years of operation. Pumps have to be upgraded, screens reconsidered and control systems revamped.

Justification / Impact:

The pump stations have reached the end of their useful design life and obsolete equipment must be replaced. Continued attention to the pump stations will allow for a predictive approach to maintenance while ensuring operational optimization and reliability.

History:

This program is based on the Portland Pump Station CPE performed by Wright-Pierce and contemplates improvements with funding from the R&R accounts.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2019 - RR	3135 Portland WW Pump Stations - R&R	\$ 50,000
2019 - RR	3006 Stroudwater Pump Station Upgrades – Phase 2	\$ 265,000
2019 - SRF	3144 Baxter Blvd. Upgrades Design	\$ 250,000
2020 - RR	3135 Portland WW Pump Stations- R&R	\$ 50,000
2020 - SRF	3143 Baxter Blvd. Upgrades – Construction	\$1,950,000
2021 - RR	3135 Portland WW Pump Stations- R&R	\$ 50,000
2021 - Bond	3184 Garrison St. PS Upgrades	\$ 375,000
2021 - Bond	3185 Congress St PS Upgrades	\$ 375,000
2022 - RR	3135 Portland WW Pump Stations- R&R	\$ 50,000
2022 - RR	2693 Westbrook St PS Upgrade	\$ 100,000
2023 - RR	3135 Portland WW Pump Stations- R&R	\$ 50,000
2023 - RR	3187 India St PS Generator Upgrade	\$ 300,000
Total Cost, All Years:		\$3,865,000

Previous Years on CIP:

2003

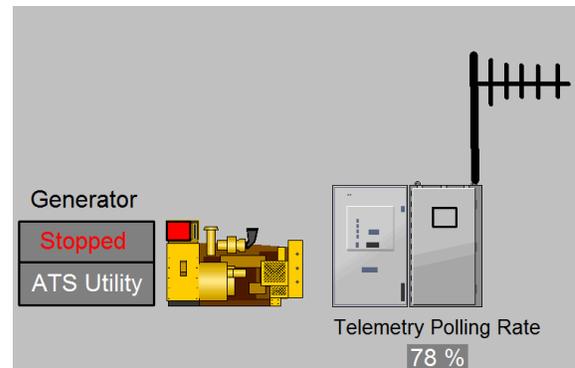
Procurement Issues:

Subprogram # 110**SCADA/Process Control - Water****Division:** Water - General**Manager:** Pellerin, Greg**Funding:** R & R – Water-Div. 20**Priority:** Upgrade obsolete facility**Description:**

The program supports 30 water sites across the District in upgrading and replacing the existing Supervisory Control and Data Acquisition (SCADA) equipment. The work needed is replacement of hardware and software to be compatible to the District SCADA standards and provide for increased automation of the water systems and treatment. Programmable Logic Controllers (PLC) have been replaced across the District to meet the new standards and remove outdated, non-maintainable equipment

Justification / Impact:

The benefit of this program is to increase the automation and reduce the staff hours needed to perform routine activities for the systems and treatment plants across the District.

**History:**

The District started changing out the system in 2003 by replacing the existing 20 year-old system and installing new SCADA equipment where it did not exist. Most systems have been retrofitted or replaced but more automation of these systems will continue.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2019 - RR	3058 Miscellaneous Control Project Upgrades	\$50,000
2020 - RR	3058 Miscellaneous Control Project Upgrades	\$50,000
2020 - RR	3061 SLWTF SCADA PC Replacement Project	\$18,000
2020 - RR	3062 SLWTF SCADA Server Replacement Project	\$16,000
2021 - RR	3058 Miscellaneous Control Project Upgrade	\$50,000
2022 - RR	3058 Micellaneous Control Projects Upgrades	\$50,000
2023 - RR	3058 Micellaneous Control Projects Upgrades	\$50,000
Total Cost, All Years:		\$284,000

Previous Years on CIP: 2003**Related Projects:** Subprogram #177**Procurement Issues:**

Subprogram # 122**Water Facilities Renewal and Replacement****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R – Water- Div. 20**Priority:** Routine replacement**Description:**

This is an ongoing project designed to maintain and improve water pump stations, treatment facilities and related infrastructure. Modifications and upgrades will ensure adequate capacity, reliability and safety of these facilities.

Justification / Impact:

Components of the older pump stations that have reached their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely reduces the amount spent on operating and maintaining the equipment.

History:

This planned renewal and replacement will assist operations in moving toward a goal of performing more predictive and preventive maintenance instead of emergency maintenance.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2019 - RR	3032 Water Facilities R&R	\$ 30,000
2019 - RR	3030 SLWTF Raw Water Pump #1	\$170,000
2019 - RR	3031 Upgrade 1 SLWTF Standby Generator Emissions	\$100,000
2020 - RR	3032 Water Facilities R&R	\$ 50,000
2020 - RR	3008 Steep Falls Finished Water Piping Replacement	\$125,000
2021 - RR	3032 Water Facilities Renewal and Replacement	\$100,000
2022 - RR	3032 Water Facilities Renewal and Replacement	\$100,000
2023 - RR	3032 Water Facilities Renewal and Replacement	\$100,000
Total Cost, All Years:		\$880,000

Previous Years on CIP:

2007 to present



Upgrade SLWTF Standby Generator to meet DEP standard for use in Real-Time Demand Response Program

Subprogram # 131**Portland CSO Mitigation****Division:** Wastewater - Portland**Manager:** Rodriguez, Paul**Funding:** R&R – Wastewater – Div 57**Priority:** Regulatory mandate

PWD owns and operates 21 of the 31 licensed CSO outfalls in the City of Portland. Upstream mitigation of CSO flows is primarily the responsibility of the City of Portland through their ongoing Long-Term Control Plan, currently in the third tier. Permanent monitors operated by PWD and located at critical sites allow for the continuous monitoring of nearly all outfalls. This provides accurate measurement of flow totals, alarming to prevent dry weather overflows, and for the measurement and verification of ongoing mitigation efforts by the City of Portland. It is critical that we have real time monitoring at CSO sites. This monitoring allows us to proactively address potential dry weather events as well as increasing our ability to implement operational measures based on system performance.

Justification / Impact:

In 2007 PWD started to install ADS Flowshark Meters at 7 key critical sites in Portland. By 2009 sixteen (16) were installed in Portland that monitor continuous flow and provide real time data and alarming at CSO sites. Due to technological changes and cellular capabilities, the current ADS Flowshark monitors have started to reach their expected life span. The benefit to the real time monitors has been valuable to both the City and to PWD. With real time monitoring, reduction of CSO events due to projects can be quantified. The reliability of the data is solid with a 98% uptime of the CSO meters during rain events allowing us to rely on actual data for CSO reporting. Over the past eight years, staff has been able to prevent Dry Weather Overflows and respond in a quick manner due to the alarming capabilities.

History:

All except for two CSO's are real time monitored by either ADS Environmental or Flow Assessment since 2010. Minor evaluation of India Street Tide gate performed by Johnson and Jordan in 2013.

Origin of the Subprogram:**Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2022 - RR 3162	Modeling and flow assessment	\$50,000
Total Cost, All Years:		\$50,000

Previous Years on CIP:**Related Projects:****Procurement Issues:**

Subprogram # 177

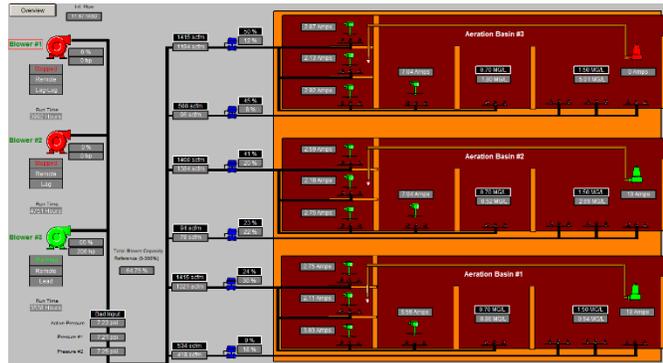
SCADA/Process Control - Wastewater

Division: Wastewater - Portland
Funding: R & R - Wastewater

Manager: Pellerin, Greg
Priority: Upgrade obsolete facility

Description:

The program supports all 80 wastewater sites across the District in upgrading and replacing the existing Supervisory Control and Data Acquisition (SCADA) equipment. The work needed is replacement of hardware and software to be compatible to the District SCADA standards and provide for increased automation of wastewater systems and treatment. Programmable Logic Controllers (PLC) have been replaced across the District to meet the new standards and remove outdated, non-maintainable equipment.



In 2017, the new aeration system went on line. The system is fully automated and is represented in the District’s SCADA system.

Justification / Impact:

The benefit of this program is to increase the automation and reduce the staff hours needed to perform routine activities for the systems and treatment plants across the District.

History:

The District started changing out the system in 2003 by replacing the existing 20 year-old system across the 6 wastewater communities and installing new SCADA equipment where it did not exist. Most systems have been retrofitted or replaced but more automation of these systems will continue.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR 3126	SCADA Radio Modem Replacement Project - Phase 2	\$350,000
2020 - RR 3127	Westbrook SCADA Server Renewal Program	\$ 20,000
2020 - RR 3125	SCADA Radio Modem Replacement Project – Phase3	\$300,000
2020 - RR 3128	EEWWTP SCADA Server Replacement Project	\$ 20,000
Total Cost, All Years:		\$690,000

Previous Years on CIP: 2003 to present
Related Projects: Subprogram #110
Procurement Issues:

Subprogram # 180**Windham - Little Falls WW System R&R**

Division: Wastewater - Windham Little Falls
Funding: Bonds, R&R – Wastewater – Div. 55

Manager: Poulin, Charlene
Priority: Routine replacement

Description:

This program provides for a planned approach to the replacement of obsolete equipment for the Windham-Little Falls wastewater pump stations. Few improvements had taken place during the first 25 - years of operation. The scope of this program is based on the amount of required maintenance and current performance of the existing infrastructure. The scope includes complete replacement of drives, motors, pumps, controls and other major equipment to ensure operational reliability of the pump stations.

Justification / Impact:

When pump stations have reached the end of their useful design life (typically 20-years) obsolete equipment should be replaced. These improvements will ensure the pump stations continue to deliver adequate flows to the WWTP with increased reliability. Additionally, these needed improvements will allow for a Preventative Maintenance plan that will keep the pump stations operating at the design level well into the life of the upgrade.

History:

The original Windham-Little Falls waste water system was built in 1987. The original system included two pump stations. These two pump stations were to be replaced with a single new pump station as part of the 2008 redevelopment of the Keddy Mill site. This project was never completed and the existing pump stations are now more than 25-years old.

Origin of the Subprogram:**Budget Summary:**

Budget year		Project	Budget Year Cost
2019 - RR	3138	Windham - Little Falls WW System R&R	\$ 20,000
2019 - Bond	3139	Depot Street Pump Station - Phase 1	\$560,000
2020 - RR	3138	Windham - Little Falls WW System R&R	\$ 20,000
2021 - RR	3138	Windham - Little Falls WW System R&R	\$ 20,000
2022 - RR	3138	Windham - Little Falls WW System R&R	\$ 20,000
2023 - RR	3138	Windham - Little Falls WW System R&R	\$ 20,000
2023 - Bond	3139	Depot Street Pump Station - Phase 2	\$500,000
Total Cost, All Years:			\$1,160,000

Previous Years on CIP:

2000 to present

Related Projects:

Subprogram #181

Procurement Issues:

Engineering and contracting will be via standard competitive retention procedures.

Subprogram # 203 Water Storage Facility Maintenance & Upgrade

Division: Water - General

Manager: Johnson, Gordon

Funding: R & R - Water

Priority: Routine replacement

Description:

This project consists of developing a maintenance program. Maintenance that may be necessary includes leak repair, painting, inside liners, base and/or cover needs. Once this work is complete, a multi-year program of maintenance contracts will be implemented to upgrade individual facilities. In some facilities, recirculation systems to routinely turn over the water in the tank and/or new altitude valves will be installed.

Justification / Impact:

Basic maintenance to preserve and prolong the useful life of needed facilities. Prevent water quality problems due to corrosion and from water stagnating in the tank.

History:

Several steel standpipes and elevated tanks have been removed over the last decade. Those that remain will be evaluated for their hydraulic value and water quality impact in the Comprehensive Water System Strategic Plan. Those that are considered to be valuable hydraulic assets to the water system will be upgraded via this ongoing program.

Origin of the Subprogram:

Maintenance has been deferred for several years pending completion of a hydraulic study to determine which tanks still have hydraulic value.

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2019 - RR	3102	Water Tank Maintenance	\$ 25,000
2020 - RR	3102	Water Tank Maintenance	\$ 50,000
2021 - Bond	3104	Water Tank Maintenance: Gorham Tank	\$450,000
2022 - RR	3102	Water Tank Maintenance	\$ 50,000
2023 - RR	3102	Water Tank Maintenance	\$ 50,000
Total Cost, All Years:			\$625,000

Previous Years on CIP:

Since 2000

Procurement Issues:

RFP preparation and contract administration will be by District Staff. Maintenance and repair services will be competitively bid.

Subprogram # 262 SLWTF - Emergency Storage/60" Transmission Ph. 1

Division: Water - General

Manager: Johnson, Gordon

Funding: Bonds - Water

Priority: Customer driven

Description:

Construct a 7.0 Million Gallon Prestressed Concrete Reservoir near the Sebago Lake Water Treatment Facility (SLWTF).

Justification / Impact:

The purpose is to provide additional storage for partial redundancy of the SLWTF so that it can be shut down for longer periods of time and improve water quality by relying less on system storage.

History:

This project was conceived as part of the Comprehensive Water System Strategic Plan, as a future need and will be assessed further during a future "Water Purification Master Plan."

Origin of the Subprogram:

This is a CWSSP recommendation to improve water quality and backup storage.

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2022 - Bond	3069	SLWTF- Emergency Storage/60" Transmission - Design	\$ 600,000
2023 - Bond	3070	Emergency Storage Tank - 7.0 MG / 60" transmission	\$6,000,000
Total Cost, All Years:			\$6,600,000

Previous Years on CIP:

2004

Related Projects:

CWSSP #267-1150

Procurement Issues:

Standard consulting and/or contractor retention procedures.

Subprogram # 307**Gorham/Windham 407 Zone Improvements****Division:** Water - General**Manager:** Johnson, Gordon**Funding:** Bonds - Water**Priority:** Upgrade obsolete facility**Description:**

Phased design and construction of transmission mains, pumps & water tank for the integration of the 407 Zones (Gorham & Windham).

Justification / Impact:

The growth in these communities requires increased capacity. There are also specific service deficiencies and water quality issues that need to be addressed in the 407 Zones.

History:

The projects listed below were anticipated by the 1989 Master Plan. Further analysis and identification was undertaken as part of the CWSSP study.

Origin of the Subprogram:

Projects identified and proposed phasing outlined in Comprehensive Water System Strategic Plan.



2018 – Design of elevated Storage for 407 zone north. This project will replace an old undersized 1950 Tank (left) with new tank (right) and Land Acquisition.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - SRF	3004 New 407 Zone Tank Design/Construction	\$2,500,000
2020 - Bond	3066 407 Zone North Transmission Improvements	\$1,000,000
2022 - Bond	3067 407 Zone Reliability Improvements	\$1,600,000
2023 - Bond	465 407 Zone Reliability Improvements II	\$2,000,000
Total Cost, All Years:		\$7,100,000

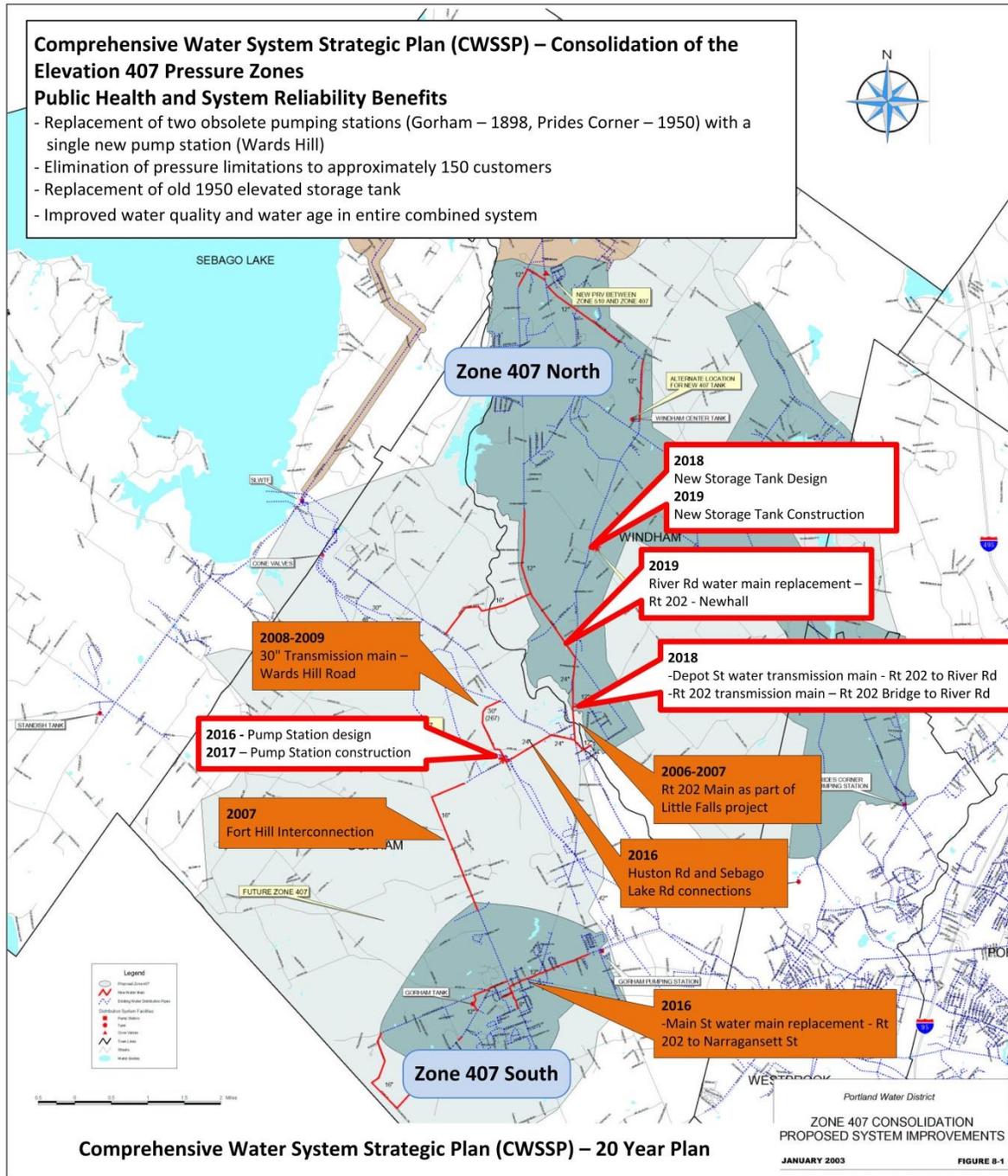
Previous Years on CIP:

2000

Related Projects:

Subprogram # 307

Gorham/Windham 407 Zone Improvements



Comprehensive Water System Strategic Plan (CWSSP) – 20 Year Plan

Subprogram # 326**Vehicle and Equipment Replacement**

Division: Allocation
Funding: R & R - Water

Manager: Welch, Andrew
Priority: Routine replacement

Description:

This project is to replace a portion of the District's Vehicle and Equipment fleet each year. This year's review included the evaluation of all of the vehicles and equipment which have met or exceeded the trade criteria. In reviewing the fleet, the replacement cost is between \$4,500,000 and \$5,000,000.

Justification / Impact:

The rolling stock and construction equipment fleet are essential to the District's "mission to provide our customers with quality water, wastewater and related environmental services." Maintaining a reliable fleet of vehicles and equipment enables staff to fulfill the mission with safety, efficiency and timeliness. Worker safety, efficient operations and customer satisfaction are the basic benefits of maintaining a sound vehicle and equipment inventory.

History:

The Asset Management Department conducts an annual evaluation of major pieces of equipment and vehicles to determine our annual replacement needs. The various trade criteria are also reviewed to assure that they are appropriate. Based on the age and use of the fleet, projections of future annual costs are included in the five-year plan. These projections are re-reviewed each year to develop a minimum replacement program for the current year. Several major pieces of equipment will need to be replaced in the next two to four years.

**Origin of the Subprogram:**

Annual review and replacement of vehicles and equipment is a basic operating need of any geographically dispersed utility.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	Vehicle and Equipment Replacement	\$400,000
2020 - RR	Vehicle and Equipment Replacement	\$400,000
2021 - RR	Vehicle and Equipment Replacement	\$400,000
2022 - RR	Vehicle and Equipment Replacement	\$400,000
2023 - RR	Vehicle and Equipment Replacement	\$400,000
Total Cost, All Years:		\$2,100,000

Previous Years on CIP:

All

Procurement Issues:

Specifications are developed and proposals are solicited from approximately thirty vehicle and equipment dealers. Purchases are made on the basis of price and other criteria which lead to lowest life cycle cost.

2019 Annual Vehicle and Equipment Replacement

2 Utility Crew Truck w/body A2	ASSET PURCHASE	\$95,000
VEH06130 VEH08020	TRADE	(\$15,000)
Utility Crew Truck w/Crane L9	ASSET PURCHASE	\$44,000
VEH05070	TRADE	(\$8,500)
Trailer Compressor A2	ASSET PURCHASE	\$18,000
TRL05510	TRADE	(\$6,500)
1-Ton Utility 4x4 A2	ASSET PURCHASE	\$38,000
VEH11120	TRADE	(\$4,000)
Wheeler Dump A2	ASSET PURCHASE	\$125,000
VEH07090	TRADE	(\$30,000)
1-Ton 4x4 EXT Cab 6.5 w/plow A3 - 3/4-Ton 4x2 w/utility L9	ASSET PURCHASE	\$75,000
VEH12020 VEH11100	TRADE	(\$16,500)
2 Utility Van A6	ASSET PURCHASE	\$48,000
VEH15040 VEH13020	TRADE	(\$16,000)
3 Pickup 1/2 ton 4x2 - 1 with lift gate (2) B3- (1) C1	ASSET PURCHASE	\$70,000
VEH06080 VEH08090 VEH10050	TRADE	(\$16,500)
	ASSET PURCHASE	
	Total CIP request	\$400,000

Subprogram # 408 Water System Redundancy (Looping) and Upsizing

Division: Water - General

Manager: Johnson, Gordon

Funding: R & R - Water

Priority: Routine replacement

Description:

Identify and evaluate areas requiring system redundancy. Design and schedule the installation of looping these systems and eliminating critical dead end areas in the Distribution System

Justification / Impact:

The justification, impact, and benefit of this program is a priority system based on, water quality (eliminating dead ends), water availability (Increased demands through growth and fire flow demands), and improving general District System and Partnering Water System redundancy.

History:

History is based on decreases in fire flows and increased usage demands noted when conducting activities in these areas such as flushing and temporary shutdown of present supply mains.

Origin of the Subprogram:

The current projects listed are based on increased demand and multiple system redundancy.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	3092 Water System Redundancy (Looping) and Upsizing dev.	\$50,000
2020 - RR	3092 Water System Redundancy (Looping) and Upsizing dev.	\$50,000
2021 - RR	3092 Water System Redundancy (Looping) and Upsizing dev.	\$50,000
2022 - RR	3092 Water System Redundancy (Looping) and Upsizing dev.	\$50,000
2023 - RR	3092 Water System Redundancy (Looping) and Upsizing dev.	\$50,000
Total Cost, All Years:		\$250,000

Previous Years on CIP:

none

Related Projects:

Subprograms #43 and #111

Procurement Issues:

District labor & equipment or low bid contract installation.

Subprogram # 411

Westbrook WW Systems R&R

Division: Wastewater - Westbrook
Funding: R & R - Wastewater

Manager: Poulin, Charlene
Priority: Routine replacement

Description:

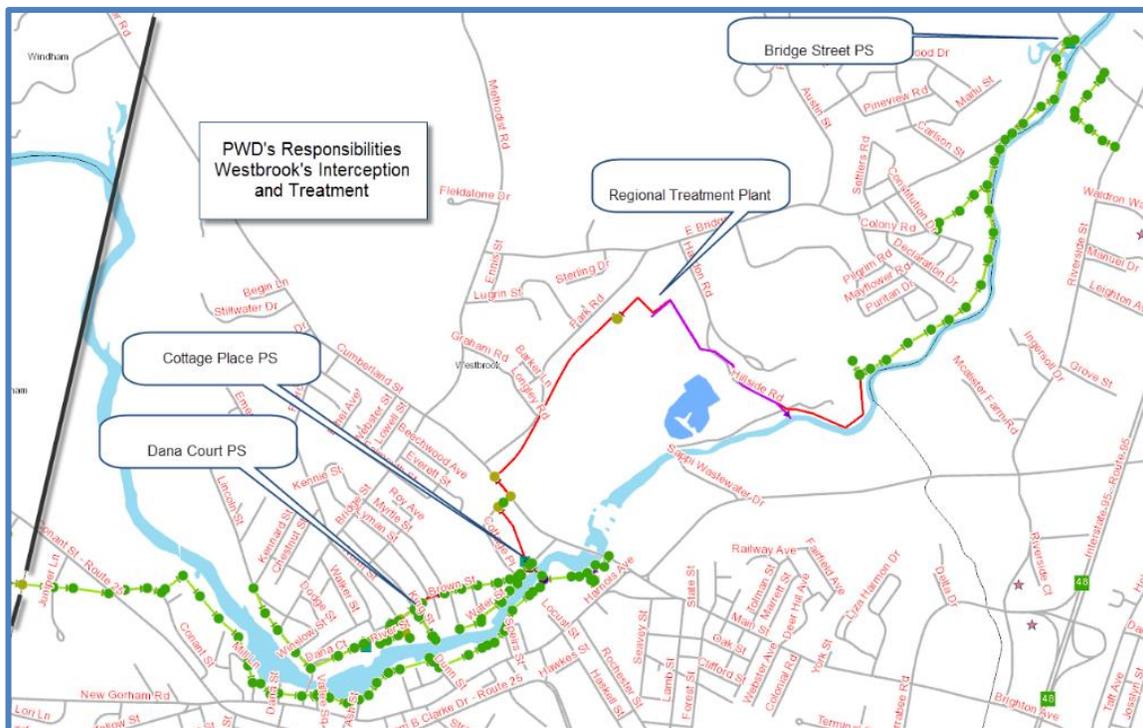
This project provides for the timely renewal of equipment associated with pump stations and the purchase of monitoring equipment for the interceptor system. Major pump stations have been recently upgraded but funds need to be available for replacement parts when necessary.

Justification / Impact:

An on-going study to upgrade the Westbrook CSO Master Plan will be complemented with the addition of a portable flow monitoring device. The Dana Court pump station has yet to be upgraded and funds are required to assure continued operation.

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	3134 Westbrook WW Systems R&R	\$20,000
2020 - RR	3134 Westbrook WW Systems R&R	\$20,000
2021 - RR	3134 Westbrook WW Systems R&R	\$20,000
2022 - RR	3134 Westbrook WW Systems R&R	\$20,000
2023 - RR	3134 Westbrook WW Systems R&R	\$20,000
Total Cost, All Years:		\$100,000



Subprogram # 416 Westbrook Gorham Windham Regional WWTF

Division: Wastewater - Joint Westbrook

Manager: Rodriguez, Paul

Funding: Bonds, R&R – Wastewater- Div. 64

Priority: Upgrade obsolete facility

Description:

The Westbrook Comprehensive Plant Evaluation (CPE) Program completed in 2001 identified a series of recommended system improvements and upgrades to replace inefficient, non-existent, or obsolete equipment and systems. Many of the items identified are intended to improve plant performance and efficiency. This CPE Upgrade Program represents the phased implementation of that long range program.

Justification / Impact:

The current facility is over 27 years old and many of the existing systems have reached or exceeded the design life of the equipment. Even with the excellent level of maintainance, many of the systems will eventually require replacement. Additionally, the identified programs are designed to provide for more efficient and cost effective treatment systems. Regulatory requirements continue to increase and the technology required to meet these levels has increased. Achieving these standards through a more reliable, efficient, and cost effective manner is the ultimate goal of this program.



History:

This program is the result of the CPE study performed by Wright-Pierce dated March 2001. Recent studies and evaluations include the Aeration System Alternatives Analysis (2015) and the Secondary Clarifier Condition Assessment (2016).

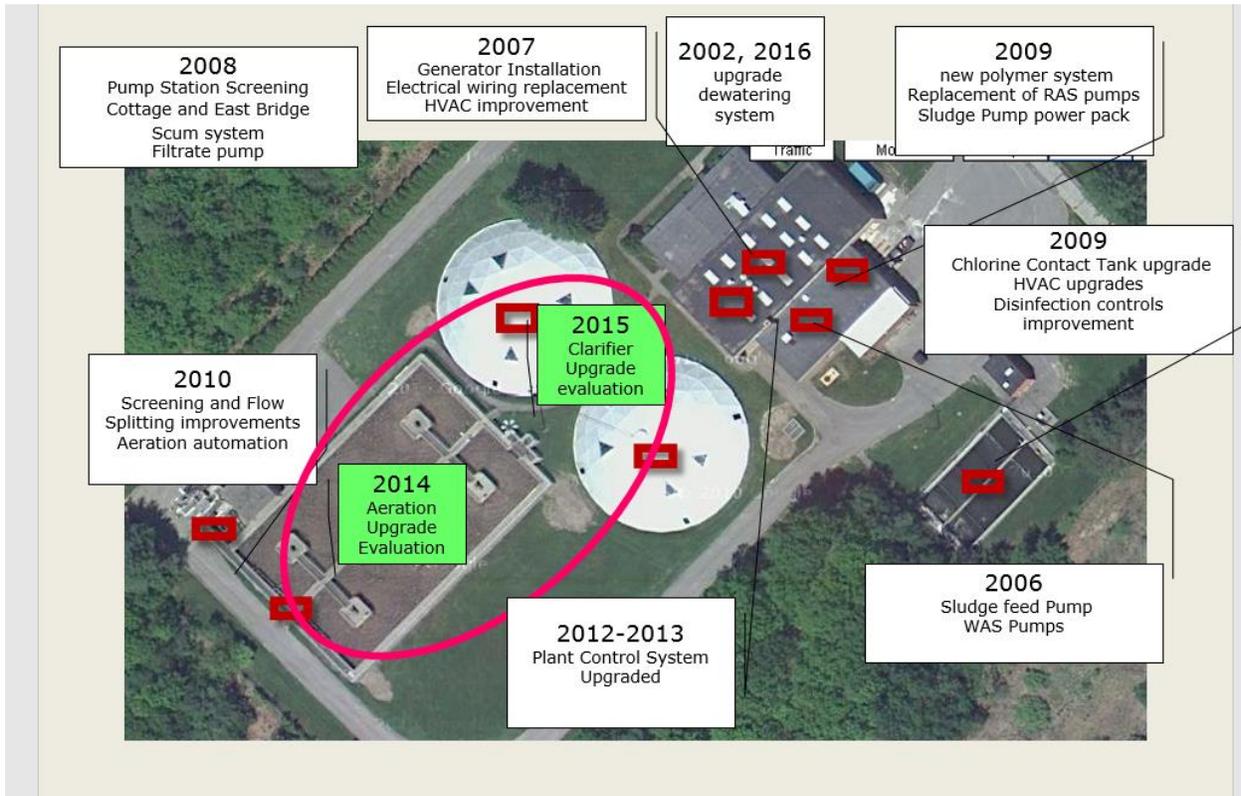
Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	3001 Westbrook Dewatered Sludge Cake Discharge	\$ 100,000
2019 - SRF	3022 Aeration and Secondary Clarifier Upgrade -Design	\$ 750,000
2019 - Bond	3025 Sludge Storage Odor Control	\$ 750,000
2019 - RR	3026 Redundant Polymer Mixing system	\$ 75,000
2019 - RR	3027 Removal of BFP, Ancillary Wiring and Controls	\$ 65,000
2019 - RR	3132 Westbrook/Gorham /Windham WWTF R&R	\$ 50,000
2020 - SRF	3022 Aeration and Secondary Clarifier Upgrade –Construction	\$9,750,000
2020 - RR	3132 Westbrook/Gorham /Windham WWTF R&R	\$ 50,000
2021 - RR	3132 Westbrook/Gorham /Windham WWTF R&R	\$ 50,000
2021 - RR	3160 Influent/Septage Screening	\$ 650,000
2022 - RR	3132 Westbrook/Gorham /Windham WWTF R&R	\$ 50,000
2022 - RR	3159 Plant Water System Rehab/Controls	\$ 75,000
2022 - RR	3190 Access Road and Parking Lot resurfacing	\$ 100,000
2023 - RR	3132 Westbrook/Gorham /Windham WWTF R&R	\$ 50,000

Total Cost, All Years: \$12,565,000

Subprogram # 416

Westbrook Gorham Windham Regional WWTF



Subprogram # 423**Peaks Island WW Treatment and Systems****Division:** Wastewater - Peaks**Manager:** Rodriguez, Paul**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This account will provide for timely routine replacement of equipment at the Peaks Island Treatment Plant and pump stations.

Justification / Impact:

Physical assets require scheduled maintenance and eventual replacement. This project provides funding for the efficient and timely replacement of equipment using routine and replacement funds.

History:

This program has been used at most PWD wastewater systems in the past.

Origin of the Subprogram:**Budget Summary:**

Budget year		Project	Budget Year Cost
2019 - RR	3131	Peaks Island R&R	\$ 20,000
2020 - RR	3131	Peaks Island R&R	\$ 20,000
2021 - RR	3131	Peaks Island R&R	\$ 20,000
2021 - RR	3194	SBR Influent valve replacement	\$ 30,000
2022 - RR	3131	Peaks Island R&R	\$ 20,000
2023 - RR	3161	Stormwater Piping Rehabilitation	\$ 50,000
2023 - RR	3131	Peaks Island R&R	\$ 20,000
2023 - RR	3192	Aeration System Upgrade	\$250,000
2023 - RR	3193	Decanter and Valve replacement /Refurbishment	\$150,000
Total Cost, All Years:			\$580,000

Previous Years on CIP: 2007 - present**Related Projects:****Procurement Issues:****Peaks Island Treatment Plant – Built 1994**

Subprogram # 424**Cape Elizabeth WWTF****Division:** Wastewater - Cape Elizabeth**Manager:** Rodriguez, Paul**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

Provide for plant upgrades required to continue to meet regulatory and operational requirements and for the timely routine replacement of equipment nearing the end of its service life. The plant came online in 1988 along with the Spurwink Pump Station which pumps all of the Southern Cape Elizabeth system's flow to the plant. Treated water is pumped to an outfall located near Peabbles Cove in accordance with the plant's discharge permit which was renewed in December 2016.

**Justification / Impact:**

Physical assets require scheduled maintenance and eventual replacement. Planned upgrades include instrumentation and control in accordance with current industry practice and provide enhanced automation, monitoring and control of the treatment processes. Regulatory requirements are continuously revised and updated by the EPA and administered by the Maine Department of Environmental Protection. This account provides for the equipment replacement and system upgrades necessary to continue to meet regulatory and operational requirements.

History: In response to a regulatory requirement to eliminate bypassing of flows during periods of wet weather, upgrades were completed in 2012 to increase the peak flow capacity of the facility. These upgrades included new influent screening, high flow and low flow return sludge pumps, upsizing a portion of the secondary clarifier effluent piping, and new effluent pumps. Recent engineering evaluations include assessments of the aeration and secondary clarifier structures, disinfection systems, and HVAC equipment. Upgrades recently completed or ongoing include:

- Influent alkalinity metering system for enhanced buffering capacity and activated sludge stability
- Heating and ventilation system to serve the headworks and sludge thickening areas (ongoing)
- Replacement of the chlorine and sodium bisulfite chemical disinfection systems with Ultraviolet Disinfection (ongoing)

Budget Summary:

Budget year	Project	Budget Year Cost
2019 - RR	3028 RAS/WAS Piping Replacement at CEWWTF	\$ 50,000
2019 - RR	3129 Cape Elizabeth WWTF - R&R	\$ 25,000
2019 - RR	3029 Rotary Drum Thickener Rehabilitation	\$ 20,000
2020 - RR	3129 Cape Elizabeth WWTF - R&R	\$ 25,000
2021 - RR	3129 Cape Elizabeth WWTF - R&R	\$ 25,000
2022 - RR	3189 Replacement of Heating Boiler at the S.Cape WWTF	\$100,000
2023 - RR	3129 Cape Elizabeth WWTF - R&R	\$ 25,000
3023 - RR	3188 Phase 2 Improvements	\$175,000
Total Cost, All Years:		\$520,000

Previous Years on CIP:

2006

Introduction

The District has the responsibility to manage their financial resources by establishing and following prudent financial policies and procedures. A summary of the significant financial policies is listed below. The district is in compliance with the policies except where noted below. Each policy is designated as being adopted by Law, Board or Management – see designation in parenthesis by policy title.

Significant Financial Policies

Accounting, Auditing, and Financial Reporting:

Basis of Accounting (Law-Charter)

The District maintains its accounting records and reports on its financial conditions and results of operations in accordance with generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board (GAAP). As a business-type activity, the District is accounted for in enterprise funds. The basic financial statements are accounting for on the flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets and liabilities are included in the statement of net position, revenues are recorded when earned, and expenses are recorded the time the liabilities are incurred. (see Budgeting and Financial Planning section for difference between GAAP and Budget.)

Fund Structure (Law-Charter)

As required by the District's charter, eight-supporting enterprise funds will be maintained – one fund for water service and seven funds for each of the communities we provide wastewater service. Revenues and expenses that are solely for the benefit of that fund are allocated directly to the enterprise fund. Enterprise funds, used for business-like activities, operate on an accrual basis. The accrual basis of accounting used by enterprise funds requires revenue to be recognized when it is earned and expenses to be recognized when the related benefit is received.

By contract, the District provides billing and meter reading services to two other communities. Related costs are recorded in the appropriate fund.

Costs that benefits more than one fund are recorded in an allocated fund. The balance in each fund is fully allocated to the appropriate enterprise or contracted utility billing funds. A detail explanation of the allocation methods used is provided on subsequent pages (see Cost Allocation Policy Detail on subsequent pages).

Annual Audit (Law-Charter)

Annual audit shall be conducted each year by the June 30. The Board of Trustees shall appoint auditors.

2018 Policy Changes Highlights

Pension Funding Policy: A key assumption to determine the actuarially determined contribution to the defined benefit is the expected future returns on invested assets. The assumption decreased to 6.5% from 7%. The change increased the 2018 pension contribution by \$232,000. The Board adopted the revised policy in 2018.

Additionally, the policy was revised to allow for US equities portion of plan assets, securities of foreign-based issuers that are transacted in US dollars on US exchanges are permitted up to a limit of 20%, an increase from 10%, and will be classified as US equities.

Purchasing Policy: The Board will consider a proposed amendment to the policy increasing amount non-union supervisors can approve without receiving formal bids to \$2,500 from \$1,000. The \$1,000 was established over 20 years ago. Additionally, the policy was amended to specifically allow electronically submitted bids in addition to the paper submittals. It is expected the Board will adopt before the beginning of the fiscal year.

Service Fees: Board adopted a policy setting **all** miscellaneous fees assessed to customers. The fees will be reviewed and approved by Board periodically in the future.

Significant Financial Policies (continued)

Financial Planning Policies:

Financial Reporting (Management)

Monthly financial reports should be distributed to the Board of Trustees and Management for their review. The report should include a comparison of actual results to budget with variance noted and explained.

Basis of Budgeting (Management)

The budget is consistent with GAAP, including the utilization of accrual accounting, except for the following items:

- Depreciation, being a non-cash expense, is not budgeted,
- Contributions to asset renewal and replacement cash reserve is budgeted,
- Principal Payments are included in the budget,
- Contributed assets are not included in the operating or capital budget,
- Pension Actuarially Determined Contribution is included in the budget opposed to the pension expense, and
- Net proceeds of asset sales are not recorded in the budget.

The Board must authorize any amendment to the operating budget that results in a net increase in the total net operating budget. The general manager and treasurer are authorized to approve transfers between department and funds. All capital projects must be approved by the Board of Trustees. The upcoming year's projects listed in the Capital Expenditure section of this document are approved when the document is adopted. As long as the actual costs are at or below the approved amount and it is awarded to the lowest bidder, the project does not need additional Board approval.

The policy requires the preparation of a multi-year projection of operating and capital expenses. The budget must be completed so the wastewater communities can be assessed the annual estimated costs by January 15th. The budget year is January 1 to December 31.

Balanced Budget (Charter)

A balanced operating budget is a budget that has total expenditures equal to total revenues, including use of fund balance. A balanced capital budget is a budget that has total expenditures that do not exceed available renewal/replacement fund amounts and external financing (bonds, grants or contributions).

Significant Financial Policies (continued)

Financial Planning Policies (continued):

Long -Range Planning (Management)

Capital Improvement Plan

A five-year capital improvement plan will be updated annually. The Board may authorize capital expenditures in the upcoming year as long the staff awards the project to lowest bidder and the total project budget is within the amount in the capital improvement plan.

Operating Budget

Operating projections of at least three future years are created. For the water fund, the projection is used to decide the appropriate water rate adjustment to consider. For most communities, wastewater services are a joint effort of the District providing treatment and interception service and the community providing collection and storm drain services. The District's projected assessment of our cost and their internal costs are considered when determining the appropriate sewer rate. All funds incorporate the recommendations of the capital improvement plans and operational evaluations/studies when projecting operating costs.

Asset Inventory (Management)

The District utilizes an asset management system that identifies the District assets. All employees must record their time to work orders and the applicable asset they are working on. Assets classifications are being reviewed for accuracy and completeness with review focusing on the most important assets. Condition rating of assets has been done on some assets and efforts will continue on critical assets. Asset evaluation studies are completed periodically on critical assets.

Revenue Policies:

Water Rates (Board)

Water rates are established to provide sufficient revenues to fully support the operation of the water fund's activities. In 1994, 2006, and 2016 cost of service studies calculated for each customer class (e.g. – residential, commercial, etc.) the amount of revenues generated and costs incurred. The study indicated that some classes were subsidizing other classes. Recognizing the impact of changing rates to reflect the cost of service for each customer class would cause significant rate shock for some customers, the approach of gradually adjusting rates over the future rate adjustments was adopted. Cost of service studies should be done periodically, approximately every 10 years, or if significant financial or operational change occurs that may have shifted the costs to serve the different customer classes. Generally, the Board has approved a small annual rate adjustment near the increase in the consumer price index.

In 2013, a new state law allowed for funding through an infrastructure capital reserve. The law allows the District to include an additional 10% in rates to fund a capital reserve. The 2019 budget assumes 1% of the proposed 4.4% water rate adjustment be dedicated to the capital reserve. The 1% will fund the debt service on \$2 million, 10-year bond for replacing aging water mains. Past practice is to issue 20-year bond to finance main renewal. An additional 1% will be added for the each of the ten years beginning in 2014.

Significant Financial Policies (continued)

Revenue Policies (continued):

Wastewater Assessment (Law -Charter)

Wastewater assessments are established to provide sufficient revenues to support the operation for each of wastewater funds' activities. By state law, the municipality must pay the district's assessment.

Service Fees (Board)

Fees for miscellaneous service should be based on the cost to provide the service. Effective January 1, 2016, the District's Board can unilaterally authorize changes for water related fees. The District must file 'terms and conditions' (T&C) with the Maine Public Utilities Commission for information only. The T&C includes the fees for any service the District requires customers to obtain from the District. The District intends to file updated T&C at least every two years to assure the fees assessed covers the costs of providing the service. Updated T&C were approved with an effective date of May 1, 2018. Additionally the Board approved a policy authorizing non-water related fees and will approve those fees in the future at the same time they approve the water related fees.

Investments (Board)

Operating fund investments must be invested with the primary objective, in priority order, of safety, liquidity and yield. Investments should be made in securities that are backed directly or indirectly by the federal government. Currently, we are in compliance with the policy.

Pension funds' investments will be primarily invested in a diversified portfolio of equity and debt securities within guidelines established in the policy. The policy was revised to allow for US equities portion of plan assets, securities of foreign-based issuers that are transacted in US dollars on US exchanges are permitted up to a limit of 20%, an increase from 10%, and will be classified as US equities.

	Minimum <u>Weight</u>	Target <u>Weight</u>	Maximum <u>Weight</u>
US Equities	30%	40%	50%
International Equities	10%	25%	30%
Bonds	20%	25%	40%
Alternatives	0%	10%	15%
Cash & Equivalents	0%	0%	30%

Use of One-time/Unpredictable Revenue (Board)

The District's Board has established a fund to collect the net proceeds of water land sales. The fund is dedicated to future investment in protecting the watershed land. Unexpected water net income is typically allocated to contingency or rainy day fund. However, the Board considers whether any portion should be allocated to the watershed land fund. The Board has established a goal of 25% and 15% of operating expense for the contingency and watershed land funds, respectively. Unexpected wastewater net income is retained in the individual funds contingency fund.

Significant Financial Policies (continued)

Expenditure Policies:

Debt (Board)

Debt may be issued for capital expenditures only. There is no legal limit for the amount of debt the District can issue. However, the Board has set a maximum target for debt service in any fund to 35% of total budget. The target is close to industry standard (AWWA Industry Benchmark, median quartile, 2012). In addition, operating revenue available for debt service should be at least 125% of the annual debt service. The District is in compliance with the policy with the exception that the Windham wastewater fund is above the 35% limit due to construction of the Little Falls Conveyance system in 2009 at the request of the Towns of Windham and Gorham. Debt will not be issued for longer than the useful life of the assets being financed. The average duration of outstanding debt should be 10 years or less.

Reserve Balances (Board)

Each operating fund has a target balance of 25% of annual net operating budget. All funds, except Portland and Windham wastewater funds, are expected to meet the target in the coming year. Portland and Windham funds are 3% and 4% below the target reserve balance.

Each fund has a cash reserve fund for the renewal and replacement of fixed assets. The target balance for the water and wastewater funds are 1% and 5%, respectively, of gross fixed asset costs. The wastewater target was increased from 3% to 5% in 2017. Westbrook and Windham meet the revised wastewater target. Cape Elizabeth, Cumberland, Gorham and Portland does not meet the increased target. The Water fund balance is 91% of the target balance. Also, the Water fund has a target balance of 15% of the annual net operating budget for a watershed land reserve. We project the reserve to be at 8% at the end of 2019.

The 2019 – 2023 trend of operating and renewal & replacements fund balances for each of the Water & Wastewater funds are located in the Budget by Fund section.

Capital Expenditures (Board)

A capital expenditure is a project with a cost of \$10,000 or more and has a useful life greater than 5 years. An exception is made for certain assets annually purchased in bulk that exceed the \$10,000 amount in a year. For example, individual hydrants, meters and service lines costs less than \$10,000 but total annual purchases exceed \$10,000.

All capital expenditures must be approved by the Board of Trustees. An annual capital improvement plan is reviewed and approved by the Board and provides authorization for capital expenditures as long as the project costs is not exceeded and the lowest bid is accepted. If project cost is anticipated to exceed budget or the lowest bid is not accepted, the Board must specifically authorize. Emergency capital expenditures must be approved by the General Manager who must inform the Board of the expenditure.

Purchasing (Board)

The policy outlines the requirements for obtaining competitive pricing and the formal bidding processes. It also establishes authorization levels for operating expenses including the requirement that expenses greater than \$50,000 be approved by the Board. Amounts less than \$50,000 must be included in the Board approved budget. We are in compliance with the policy.

Significant Financial Policies (continued)

Expenditure Policies (continued):

Pension Funding Policy (Board)

The Board voted to fully fund the District's defined benefit plan by contributing at least the annual required contribution as calculated by the actuary. Because of new accounting rules that went into effect in 2015, the Board adopted a new pension funding policy effective for 2015. The policy states the District's intention to adequately fund the pension plan and contribute at least the actuarially determined contribution consistent with assumption used to calculate the pension expense under the new accounting rule, except to spread out the funding for impact of changes of the benefits negotiated as part of the three-year union contract over the life of the union contract. The policy states the District will fund \$1 million a year, assuming the \$1 million is greater than the actuarially determined contribution (ADC). The 2019 Budget assumes the ADC of \$1.1 million will be paid in 2019.

Risk Management Policies

Maine Tort Claims Act (Law- State)

As a public entity, the District's liability for third party tort claims is limited by the provisions of the Maine Tort Claims Act. The Act provides that the District is immune from claims, unless the Act provides a specific exception from immunity. In the District's case, the exception most likely to affect the District is one making the District liable for negligent use of machinery and equipment. Should the District be liable for a claim under the provisions of the Act, its liability is capped by the Act at \$400,000. The immunity provided public entities by the Tort Claims Act helps keep to keep the cost of the District's insurance lower, allowing the District to pass this savings to its rate payers.

Property and Liability Insurance (Board)

Property and liability insurance is purchased to cover building and personal property losses including losses due to flood and earthquakes. Certain liability claims are limited under the Maine Tort Claim Act to \$400,000. The Board adopted a change to limit insurance on claims covered by the Tort Claim Act to the Act's limit.

Safety Program (Management)

A full-time safety officer and executive safety team oversee various safety policies including confined space entry, electrical safety, ergonomic for video display terminals, fall protection, hazard communication and safety commitment policies. A safety incentive policy outlines an employee award program recognizing good safety performance.

Employee Management (Management)

A three-person Employee Services department oversees the district's employee relations management and practices. Over 60 policies have been created to guide management and employees with one goal of reducing the District's risk to losses.

In-House Legal Counsel (Board)

In 2006, the Board authorized hiring in-house legal counsel. Legal counsel actively participates in overseeing the district's operation, including reviewing all contracts, and proactively identifying ways to reduce or avoid legal issues.

Cost Allocation Policy Detail

The District has one water fund and six wastewater funds (Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham). In addition, the District also provides billing and/or meter reading services to three other municipalities (Falmouth, Scarborough and South Portland).

It is the District's policy to directly assign expenses to a fund/municipality whenever possible. However, there are some expenses, such as paid time off or work done by administrative personnel, where such an assignment is not possible. In such cases, an allocation of that cost must be done.

In 1995, the District engaged an outside consultant to review and update its cost allocation process. Since that time, organizational and other changes have necessitated updates and modifications. The changes that were made used the guidelines from the 1995 study. The current allocations were reviewed and approved by the District's current auditors during 2013.

Currently the District uses the following methods to allocate costs:

- Customers Served
- Direct Labor
- General Allocation Percentage
- Gross Asset Value
- Meter Equivalent Units
- Relative Benefits
- Square Footage Utilized

A description of each method, the percentages used in this Budget and the dollars allocated, are in the following pages.

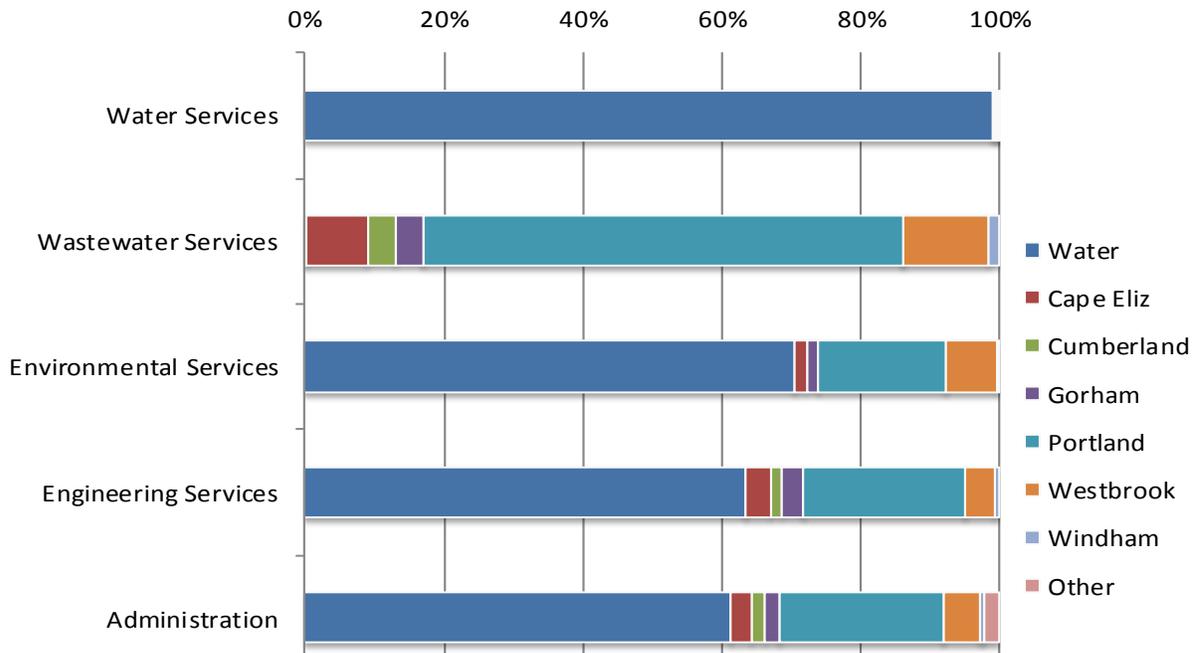
Each financial transaction is assigned a cost center number when the transaction is recorded in the financial system. The fund number indicates whether it is a 'direct' charge to the fund or an 'indirect' charge that will be allocated. Each department's costs are broken down into the fund category in the Departmental Expense section. All costs ultimately are assigned to the one of the seven enterprise funds or three contact billing municipalities.

Fund	Description	Fund	Description
10	Allocated to All Direct Funds	56	Gorham Wastewater (Little Falls)
20	Water – members	57	Portland Wastewater
30	Water – nonmembers	59	South Portland Contacted Billing
50	Allocated to All Wastewater Funds	61	Gorham Wastewater (Village)
51	Cape Elizabeth Wastewater	62	Westbrook Wastewater
53	Cumberland Wastewater	64	Allocated to Gorham/Westbrook/Windham
54	Falmouth Contracted Billing	65	Allocated to Gorham/Windham WW
55	Windham Wastewater	66	Portland Wastewater (Peaks Island)

Relation of Functional Units (Departments) to Funds

As expenses are incurred, each department charges a cost center, which indicates to what fund the expenditure belongs. The totals below show how the costs for each department are spread across the organization. Not surprisingly, 99.1% of the costs of the Water Services department are assigned to the Water Fund and 99.9% of the Wastewater Services department costs go to the Wastewater funds. The expenditures of the remaining departments assign between 61.4% and 70.6% of costs to the Water Fund with the remaining going to the Wastewater funds.

Department	Dept Exp	Water	Cape Eliz	Cumber	Gorham	Portland	Westbr	Windham	Other
Water Srvs	\$8,795,473	99.1%	0.1%	0.0%	0.0%	0.5%	0.1%	0.0%	0.2%
Wastewater Srvs	9,567,783	0.1%	9.1%	4.0%	4.0%	68.9%	12.4%	1.5%	0.0%
Environmental Srvs	2,068,960	70.6%	1.6%	0.0%	1.6%	18.4%	7.5%	0.3%	0.0%
Engineering Srvs	4,356,957	63.3%	3.7%	1.6%	3.1%	23.3%	4.4%	0.6%	0.0%
Administration	5,821,457	61.4%	3.0%	1.7%	2.3%	23.5%	5.2%	0.6%	2.3%
<u>Non-Departmental</u>	<u>260,965</u>	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Department Exp	30,871,595								
(less) Trans Exp	(829,454)								
Fund Expense	30,042,141								



Customers Served

This method determines the ratio of customers per fund to the total number of customers served based on the average total number of water and sewer customers.

The costs for Customer Service have three different allocations (general, billing and meter reading costs) that vary slightly. Falmouth has flat billings for their sewer customers; therefore, their general needs are limited (compared with sewer bills based on usage) and they do not utilize meter reading data. In addition, Scarborough does its own billing and payment processing utilizing the District’s meter reading data, thus they have no general or billing expenses.

Sub-Groups Using Method:

F1 – Customer Service

H1 – Financial Services (payment processing)

2019 Allocation %:					2018 Allocation %:				
	General F1	Billing F1	Meter Read F1	Paymts H1		General F1	Billing F1	Meter Read F1	Paymts H1
Water	67.50%	66.04%	67.48%	66.04%	Water	67.41%	65.96%	67.39%	65.96%
Cape Eliz	2.15%	2.15%	2.15%	2.15%	Cape Eliz	2.15%	2.15%	2.15%	2.15%
Cumberland	1.08%	1.08%	1.08%	1.08%	Cumberland	1.06%	1.06%	1.06%	1.06%
Falmouth	0.36%	1.82%	0.00%	1.82%	Falmouth	0.36%	1.81%	0.00%	1.81%
Gorham	1.69%	1.69%	1.69%	1.69%	Gorham	1.66%	1.66%	1.66%	1.66%
Portland	15.67%	15.67%	15.67%	15.67%	Portland	15.77%	15.77%	15.77%	15.77%
Scarborough	0.00%	0.00%	0.38%	0.00%	Scarborough	0.00%	0.00%	0.38%	0.00%
So Portland	7.23%	7.23%	7.23%	7.23%	So Portland	7.26%	7.26%	7.26%	7.26%
Westbrook	4.27%	4.27%	4.27%	4.27%	Westbrook	4.28%	4.28%	4.28%	4.28%
Windhan	0.05%	0.05%	0.05%	0.05%	Windhan	0.05%	0.05%	0.05%	0.05%
	100.00%	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%	100.00%
Dollars Allocated:					Dollars Allocated:				
	General F1	Billing F1	Meter Read F1	Paymts H1		General F1	Billing F1	Meter Read F1	Paymts H1
Water	\$664,589	\$266,047	\$53,737	\$122,922	Water	\$658,784	\$198,788	\$51,944	\$116,198
Cape Eliz	\$21,168	\$8,661	\$1,712	\$4,002	Cape Eliz	\$21,012	\$6,480	\$1,657	\$3,788
Cumberland	\$10,633	\$4,351	\$860	\$2,010	Cumberland	\$10,359	\$3,195	\$817	\$1,867
Falmouth	\$3,544	\$7,332	\$0	\$3,388	Falmouth	\$3,518	\$5,455	\$0	\$3,189
Gorham	\$16,639	\$6,808	\$1,346	\$3,146	Gorham	\$16,223	\$5,003	\$1,280	\$2,924
Portland	\$154,283	\$63,128	\$12,479	\$29,167	Portland	\$154,117	\$47,527	\$12,155	\$27,781
Scarborough	\$0	\$0	\$303	\$0	Scarborough	\$0	\$0	\$293	\$0
So Portland	\$71,185	\$29,127	\$5,758	\$13,457	So Portland	\$70,951	\$21,880	\$5,596	\$12,790
Westbrook	\$42,041	\$17,202	\$3,400	\$7,948	Westbrook	\$41,828	\$12,899	\$3,299	\$7,540
Windhan	495	202	39	92	Windhan	488	149	38	87
	\$984,577	\$402,858	\$79,634	\$186,132		\$977,280	\$301,376	\$77,079	\$176,164

Direct Labor

This method calculates the ratio of labor dollars directly charged by the area to specific funds.

Sub-Groups Using Method:

B1 – Wastewater Administration

L6 – Laboratory

B3 – East End (Portland) Wastewater Treatment

L9 – Water/Wastewater Systems

C1 – Facilities Services

E7 – Instrumentation (general wastewater)

2019 Allocation %:	B1	B3	C1	E7	L6	L9
Water	0.00%	0.00%	80.00%	0.00%	33.27%	0.00%
Cape Elizabeth	10.90%	6.69%	3.36%	10.90%	4.14%	10.90%
Cumberland	3.31%	0.00%	0.66%	3.31%	0.00%	3.31%
Gorham	5.35%	2.26%	1.01%	5.35%	3.13%	5.35%
Portland	66.12%	77.27%	12.88%	66.12%	41.20%	66.12%
Westbrook	12.38%	13.31%	1.70%	12.38%	17.67%	12.38%
Windham	1.94%	0.47%	0.39%	1.94%	0.59%	1.94%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	C1	E7	L6	L9
Water	\$0	\$0	\$162,787	\$0	\$72,618	\$0
Cape Elizabeth	41,874	27,709	6,837	8,043	9,036	61,071
Cumberland	12,716	0	1,343	2,442	0	18,545
Gorham	20,553	9,360	2,055	3,948	6,832	29,975
Portland	254,009	320,038	26,209	48,788	89,927	370,459
Westbrook	47,559	55,127	3,459	9,135	38,568	69,363
Windham	7,452	1,947	794	1,431	1,288	10,870
	\$384,163	\$414,181	\$203,484	\$73,787	\$218,269	\$560,283
2018 Allocation %:	B1	B3	C1	E7	L6	L9
Water	0.00%	0.00%	79.89%	0.00%	31.38%	0.00%
Cape Elizabeth	10.52%	6.10%	3.32%	10.52%	3.75%	10.52%
Cumberland	3.72%	0.00%	0.65%	3.72%	0.00%	3.72%
Gorham	5.18%	2.66%	1.03%	5.18%	2.84%	5.18%
Portland	65.79%	76.80%	13.15%	65.79%	46.00%	65.79%
Westbrook	13.09%	13.89%	1.62%	13.09%	15.62%	13.09%
Windham	1.70%	0.55%	0.34%	1.70%	0.41%	1.70%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	C1	E7	L6	L9
Water	\$0	\$0	\$152,842	\$0	\$73,388	\$0
Cape Elizabeth	31,590	25,746	6,352	7,387	8,770	52,908
Cumberland	11,171	0	1,244	2,612	0	18,709
Gorham	15,555	11,227	1,971	3,637	6,642	26,052
Portland	197,560	324,151	25,158	46,195	107,580	330,874
Westbrook	39,308	58,626	3,099	9,191	36,530	65,833
Windham	5,105	2,321	650	1,194	960	8,549
	\$300,289	\$422,071	\$191,316	\$70,216	\$233,870	\$502,925

General Allocation Percentage

The ratio is calculated by determining each fund's operating budget (total expenditures less other/interest income) as a percentage to the total operating budget.

Sub-Groups Using Method:

E7 – Instrumentation

H1 – Financial Services

J1 – General Manager's

G1 – Information Service

I1 – Employee Services

Office

2019 Allocation %:	E7	G1	H1	I1	J1
Water	55.89%	55.89%	55.89%	55.89%	55.89%
Cape Elizabeth	3.59%	3.59%	3.59%	3.59%	3.59%
Cumberland	2.08%	2.08%	2.08%	2.08%	2.08%
Gorham	2.64%	2.64%	2.64%	2.64%	2.64%
Portland	28.91%	28.91%	28.91%	28.91%	28.91%
Westbrook	6.04%	6.04%	6.04%	6.04%	6.04%
Windham	0.85%	0.85%	0.85%	0.85%	0.85%
	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$80,222	\$604,199	\$395,038	\$289,146	\$1,000,868
Cape Elizabeth	5,153	38,810	25,375	18,573	64,289
Cumberland	2,986	22,486	14,702	10,761	37,248
Gorham	3,789	28,540	18,660	13,658	47,277
Portland	41,496	312,532	204,340	149,565	517,715
Westbrook	8,670	65,295	42,692	31,248	108,163
Windham	1,219	9,188	6,007	4,397	15,221
	\$143,535	\$1,081,050	\$706,814	\$517,348	\$1,790,781
2018 Allocation %:	E7	G1	H1	I1	J1
Water	55.75%	55.75%	55.75%	55.75%	55.75%
Cape Elizabeth	3.66%	3.66%	3.66%	3.66%	3.66%
Cumberland	2.06%	2.06%	2.06%	2.06%	2.06%
Gorham	2.67%	2.67%	2.67%	2.67%	2.67%
Portland	28.70%	28.70%	28.70%	28.70%	28.70%
Westbrook	6.29%	6.29%	6.29%	6.29%	6.29%
Windham	0.87%	0.87%	0.87%	0.87%	0.87%
	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$79,154	\$579,059	\$395,623	\$289,041	\$998,945
Cape Elizabeth	5,197	38,015	25,973	18,976	65,581
Cumberland	2,925	21,397	14,619	10,680	36,912
Gorham	3,791	27,733	18,947	13,843	47,842
Portland	40,749	298,099	203,666	148,798	514,255
Westbrook	8,931	65,332	44,636	32,611	112,706
Windham	1,234	9,036	6,173	4,510	15,589
	\$141,981	\$1,038,671	\$709,637	\$518,459	\$1,791,830

Gross Asset Value

The allocation percentage is each fund's gross (fixed) asset value as a ratio to all gross assets. Costs allocated include those that involve all District assets (All) or in some cases only wastewater assets (WW). The same asset values are used in both calculations except that the Water assets are removed for the wastewater calculations.

Sub-Group Using Method:

E2 – Planning and Design

2019 Allocation %:

	All	WW
Water	63.64%	0.00%
Cape Elizabeth	3.33%	9.17%
Cumberland	1.59%	4.36%
Falmouth	0.00%	0.00%
Gorham	3.61%	9.92%
Portland	22.77%	62.64%
Westbrook	4.44%	12.21%
Windham	0.62%	1.70%
	100.00%	100.00%

2018 Allocation %:

	All	WW
Water	63.11%	0.00%
Cape Elizabeth	3.40%	9.22%
Cumberland	1.63%	4.41%
Falmouth	0.00%	0.00%
Gorham	3.69%	10.00%
Portland	23.04%	62.45%
Westbrook	4.50%	12.21%
Windham	0.63%	1.71%
	100.00%	100.00%

Dollars Allocated:

	All	WW
Water	\$647,795	\$0
Cape Elizabeth	33,896	23,361
Cumberland	16,185	11,107
Falmouth	0	0
Gorham	36,746	25,271
Portland	231,777	159,575
Westbrook	45,195	31,105
Windham	6,311	4,331
	\$1,017,905	\$254,750

Dollars Allocated:

	All	WW
Water	\$579,898	\$0
Cape Elizabeth	31,242	25,207
Cumberland	14,978	12,057
Falmouth	0	0
Gorham	33,906	27,340
Portland	211,707	170,736
Westbrook	41,349	33,382
Windham	5,789	4,674
	\$918,869	\$273,396

Meter Equivalent Units

This calculation takes each meter and assigns a weight based on its size to determine a value of meter service provided to each fund.

Sub-Group Using Method:

A6 – Utility Services (meter service)

2019 Allocation %:

	A6
Water	65.39%
Cape Elizabeth	1.76%
Cumberland	0.97%
Gorham	1.56%
Portland	17.23%
Scarborough	1.14%
South Portland	7.64%
Westbrook	4.23%
Windham	0.08%
	100.00%

2018 Allocation %:

	A6
Water	65.39%
Cape Elizabeth	1.77%
Cumberland	0.95%
Gorham	1.53%
Portland	17.30%
Scarborough	1.11%
South Portland	7.65%
Westbrook	4.22%
Windham	0.08%
	100.00%

Dollars Allocated:

	A6
Water	\$103,467
Cape Elizabeth	2,785
Cumberland	1,535
Gorham	2,468
Portland	27,263
Scarborough	1,804
South Portland	12,089
Westbrook	6,693
Windham	127
	\$158,231

Dollars Allocated:

	A6
Water	\$102,553
Cape Elizabeth	2,776
Cumberland	1,490
Gorham	2,400
Portland	27,132
Scarborough	1,741
South Portland	11,998
Westbrook	6,618
Windham	125
	\$156,833

Relative Benefits

This method of allocation is based upon management's assessment of the benefit received by the departments and funds from the areas providing the service. Customer Service (control/dispatch) allocation assumes most work (95%) will involve the Water fund; the remaining dollars are allocated to wastewater funds based on the number of pump stations in each community. The Laboratory wastewater split was determined by the number of tests run for each community. The allocation (new in 2019) for Industrial Pretreatment (IPT) is based on the applicable industries in each community.

Sub-Groups Using Method:

F1 – Customer Service (control/dispatch center)

L6 – Laboratory (general wastewater)

L6 – Industrial Pretreatment (IPT)

2019 Allocation %:

	F1	L6	IPT
Water	95.00%	0.00%	0.00%
Cape Elizabeth	1.64%	7.94%	0.00%
Cumberland	0.93%	0.00%	0.00%
Gorham	0.99%	3.80%	10.00%
Portland	1.00%	62.50%	66.00%
Westbrook	0.17%	24.80%	22.00%
Windham	0.27%	0.96%	2.00%
	100.00%	100.00%	100.00%

2018 Allocation %:

	F1	L6
Water	95.00%	0.00%
Cape Elizabeth	1.64%	7.94%
Cumberland	0.93%	0.00%
Gorham	0.99%	4.70%
Portland	1.00%	62.50%
Westbrook	0.17%	23.90%
Windham	0.27%	0.96%
	100.00%	100.00%

Dollars Allocated:

	F1	L6	IPT
Water	\$192,217	\$0	\$0
Cape Elizabeth	3,318	19,179	0
Cumberland	1,882	0	0
Gorham	2,003	9,179	7,542
Portland	2,023	150,971	49,774
Westbrook	344	59,905	16,591
Windham	547	2,320	1,508
	\$202,334	\$241,554	\$75,415

Dollars Allocated:

	F1	L6
Water	\$191,017	\$0
Cape Elizabeth	3,298	21,417
Cumberland	1,870	0
Gorham	1,991	12,677
Portland	2,011	168,583
Westbrook	342	64,466
Windham	541	2,589
	\$201,070	\$269,732

Square Footage Utilized

The costs of the Douglass Street administrative facility are charged to each area based on the square footage they occupy. Office space is charged out at a higher rate (five times higher) than warehouse space. Dollars are allocated to the sub-groups.

2019 Allocation %:

Water Operations	
A1 - Water Administration	2.67%
A2 - Transmission/Distribution	5.25%
A6 - Utility Services	1.58%
	9.50%
Environmental Services	
A5 - Water Resources	0.83%
	0.83%
Wastewater Operations	
B1 - WW Administration	0.83%
L9 - Water/WW Systems	3.73%
	4.56%
Engineering Services	
C1 - Facility Services	23.54%
E2 - Planning & Design	15.10%
E7 - Instrumentation	1.37%
	40.01%
Administration	
F1 - Customer Service	11.72%
G1 - Information Services	5.71%
H1 - Financial Services	8.61%
I1 - Employee Services	3.96%
J1 - BOT & Senior Management	15.10%
	45.10%
	100.00%

Dollars Allocated:

	\$
Water Operations	\$71,131
Environmental Services	6,215
Wastewater Operations	34,143
Engineering Services	299,574
Administration	<u>337,685</u>
	<u>\$748,748</u>

2018 Allocation %:

Water Operations	
A1 - Water Administration	2.67%
A2 - Transmission/Distribution	5.25%
A6 - Utility Services	1.41%
	9.33%
Environmental Services	
A5 - Water Resources	0.83%
	0.83%
Wastewater Operations	
B1 - WW Administration	0.83%
L9 - Water/WW Systems	3.73%
	4.56%
Engineering Services	
C1 - Facility Services	23.71%
E2 - Planning & Design	15.10%
E7 - Instrumentation	1.37%
	40.18%
Administration	
F1 - Customer Service	11.72%
G1 - Information Services	5.71%
H1 - Financial Services	8.61%
I1 - Employee Services	3.96%
J1 - BOT & Senior Management	15.10%
	45.10%
	100.00%

Dollars Allocated:

	\$
Water Operations	\$69,943
Environmental Services	6,222
Wastewater Operations	34,185
Engineering Services	301,214
Administration	<u>338,098</u>
	<u>\$749,662</u>

Vehicle Rates

Internal Transportation costs are charges the departments receive for the availability of District owned vehicles. Each type of vehicle and piece of equipment has an assigned hourly rate. Most vehicles are charged for 40 hours per week. Charges are either assigned directly to the task or to a “stand-by” account or later allocated. Transportation costs represent the expense of operating the garage and include labor, materials, occupancy and depreciation. Overall budget is 2.1% less than 2018.

2019 Budget Details

Vehicle Type	Rate	Active Hours	Stand-by Hours	Total Hours
Backhoe/Loader <19,501 GVW	\$34.71	2,640		2,640
Backhoe/Loader >=19,500 GVW	\$39.97	225		225
Car	\$3.29	770	1,980	2,750
Compressor	\$21.02	4,500		4,500
Dump Truck < 15,000 GVW	\$8.87	700	1,380	2,080
Dump Truck 15,001-40,000 GVW	\$11.39	2,040	6,280	8,320
Dump Truck >= 40,000 GVW	\$15.22	3,750	2,490	6,240
Generator/Load Bank	\$35.76	484		484
Misc. Const. Equipment - Forklift, etc.	\$24.19	1,200		1,200
Misc. Trailed Equipment - Cement Mixer, Jet Machine,	\$15.79	1,281		1,281
Pick-up Truck/SUV - Light - < 6,000 GVW	\$3.29	1,430	2,730	4,160
Pick-up Truck/SUV - Medium - 6,001-7,500 GVW	\$3.54	15,531	21,909	37,440
Pick-up Truck/SUV - Heavy - 7,501-10,000 GVW	\$4.31	6,956	7,604	14,560
Special Purpose - C - Crane, Sludge, etc.	\$47.33	100		100
Special Purpose - D - Jetvac, etc.	\$63.10	1,158		1,158
Utility Truck 10,001 - 14,000 GVW	\$5.07	4,101	2,139	6,240
Utility Truck 14,001 - 16,000 GVW	\$5.57	7,766	4,714	12,480
Utility Truck 16,001 - 19,500 GVW	\$6.08	5,356	2,964	8,320
Utility Truck 6,001 - 10,000 GVW	\$3.54	8,868	5,692	14,560
Van < 6,000 GVW	\$3.29	2,215	4,025	6,240
Van 6,001-7,500 GVW	\$3.54	1,020	1,060	2,080
Van 7,501-10,000 GVW	\$4.31	20,587	14,773	35,360
Total Hours		92,678	79,740	172,418

Sub-Group	2018 Budget	2019 Budget	\$ - Difference	% - Difference
A1 - Water Administration	\$388	\$0	(\$388)	-100.0%
A2 - Transmission/Distribution	567,953	581,553	13,600	2.4%
A3 - Water Treatment	35,497	32,971	(2,526)	-7.1%
A5 - Water Resources	38,375	35,244	(3,131)	-8.2%
A6 - Utility Services	154,260	153,956	(304)	-0.2%
B1 - WW Administration	0	0	0	n/a
B3 - Wastewater Treatment	61,553	56,326	(5,227)	-8.5%
C1 - Facility Services	54,372	56,505	2,133	3.9%
E2 - Planning & Design	27,620	18,527	(9,093)	-32.9%
E7 - Instrumentation	23,586	21,560	(2,026)	-8.6%
F1 - Customer Service	16,180	14,717	(1,463)	-9.0%
I1 - Employee Services	0	0	0	n/a
J1 - BOT & Senior Management	0	0	0	n/a
L6 - Water/WW Laboratory	1,260	0	(1,260)	-100.0%
L9 - Water/WW Systems	193,201	178,096	(15,105)	-7.8%
	\$1,174,245	\$1,149,454	(\$24,791)	-2.1%

Joint Use Facilities – Operations and Maintenance Allocations

The District has two areas where wastewater flows from more than one community are combined. Costs associated with these combinations are allocated by the percentage of the flow contributed by each community. The areas of combined flow are:

Portland Water District Facilities:

Westbrook Regional – All of the wastewater from Gorham, Westbrook and Windham is treated at Westbrook Regional Wastewater Treatment Facility, with one pump station handling the combined waste from all three communities. The budget for 2019 is \$1,039,521 (down \$8,883 or 0.8%). Lower labor/benefit costs offset increases to biosolids and materials expense.

Little Falls – The Little Falls areas of Gorham and Windham used to be a self-contained system with its own small treatment facility. Starting in 2008, wastewater from this area was conveyed to the Westbrook Regional Wastewater Treatment Facility. Currently, wastewater from Windham moves into Gorham where it is combined with that community's flow until it joins with the Westbrook flow at the Westbrook town line. This area's budget is \$69,426, up 17.6% (\$10,404) mostly due higher labor/benefit costs offset somewhat by to a reduction of one day of CCTV work to be done in 2019.

----- Westbrook Regional -----				----- Little Falls -----	
	Gorham	Westbrook	Windham	Gorham	Windham
2014	14.00%	83.70%	2.30%	15.00%	85.00%
2015	13.00%	84.70%	2.30%	20.00%	80.00%
2016	15.00%	82.00%	3.00%	22.50%	77.50%
2017	16.50%	80.25%	3.25%	21.50%	78.50%
2018	15.75%	81.00%	3.25%	27.50%	72.50%
2019	13.00%	84.00%	3.00%	28.00%	72.00%

Contracted Services Facilities:

South Portland – All of the wastewater from the Northern portion of Cape Elizabeth is treated at the South Portland Treatment Facility through a contractual agreement. Charges to the District are budgeted to be \$166,600 in 2019 (a decrease of 2.1%).

Falmouth – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement. This cost is budgeted to be \$501,846 in 2019 (8.8% decrease). The decrease primarily due reductions in debt service costs and renewal and replacement costs.

----- South Portland -----			----- Falmouth -----		
	Cape Eliz	So Portland	Cumberland	Falmouth	Millcreek PS
2014	6.7%	93.3%	24.0%	76.0%	40.8%
2015	6.7%	93.3%	24.0%	76.0%	40.8%
2016	6.7%	93.3%	24.0%	76.0%	40.8%
2017	6.7%	93.3%	24.0%	76.0%	40.8%
2018	6.7%	93.3%	24.0%	76.0%	40.8%
2019	6.7%	93.3%	24.0%	76.0%	40.8%

Note: Starting in 2013 Millcreek Pump Station (PS) costs were be allocated to Cumberland at the specific rate above whereas in prior years it was allocated based on the Cumberland flow ratio.

Joint Use Facilities – Capital Cost Sharing Allocations

The District has two areas where wastewater flows from more than one community are combined. Costs associated with these combinations are allocated by the percentage of the design flow contributed by each community. The areas of combined flow are:

Portland Water District Facilities:

Westbrook Regional – All of the wastewater from Gorham, Westbrook and Windham is treated at Westbrook Regional Wastewater Treatment Facility. In addition, one pump station handles the combined waste from all three communities.

System	--- Millions of Gallons/Day (MGD) ---				----- Flow Percentage -----		
	Westbrook	Gorham	Windham	Total	Westbrook	Gorham	Windham
Southside Interceptor above Manhole 60	0.16	1.06	0.12	1.34	12.0%	79.1%	9.0%
Manhole 60 up to and including Siphon	5.00	1.06	0.12	6.18	81.0%	17.2%	1.9%
Cottage Place Pumping Station & Force Main	2.12	0.70	0.06	2.88	73.7%	24.3%	2.1%
Westbrook Regional WWTF & Outfall	3.02	1.40	0.12	4.54	66.6%	30.8%	2.6%

Little Falls – The Little Falls areas of Gorham and Windham used to be a self-contained system with its own small treatment facility. Starting in 2008, wastewater from this area was conveyed to the Westbrook Regional Wastewater Treatment Facility. As it is presently constituted, wastewater from Windham moves into Gorham where it is combined with that community's flow until it joins with the Westbrook flow at the Westbrook town line.

Facility Name	----- Gallons/Day -----			-- Flow Percent --	
	Gorham	Windam	Total	Gorham	Windam
Gray Rd/Mallison St Gravity Sewer	63,500	53,500	117,000	54.3%	45.7%
Mallison St Pump Station (PS)/Flow Meter (FM)	84,000	100,000	184,000	45.6%	54.4%
Mosher Rd Gravity Sewer	145,000	100,000	245,000	59.2%	40.8%
Little River PS/FM	222,500	100,000	322,500	69.0%	31.0%
Mosher Rd & Cross Country Gravity Sewer	638,000	100,000	738,000	86.4%	13.6%
Industrial Park Gravity Sewer Upgrade	2,105,000	100,000	2,205,000	95.5%	4.5%
Woodlawn Ave PS (Town Path Rd) effective 2008	-	-	-	100.0%	0.0%
Fire Station (Route 202) PS	-	-	-	0.0%	100.0%
Androscoggin St PS	-	-	-	0.0%	100.0%

Contracted Services Facilities:

South Portland – All of the wastewater from the Northern portion of Cape Elizabeth is treated at the South Portland Treatment Facility through a contractual agreement.

Facility Name	--- Millions Gallons/Day (MGD) ---			---- Flow Percentage ----	
	Cape Eliz	So Portland	Total	Cape Eliz	So Portland
Treatment Plant	0.716	8.584	9.300	7.7%	92.3%

Note: In Cape Elizabeth 1/13th of average design flow = 7.7% per Sewer Service Agreement dated 08/11/93.

Falmouth – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement.

Facility Name	Millions of Gallons/Day (MGD)*			---- Flow Percentage ----	
	Cumberland	Falmouth	Total	Cumberland	Falmouth
Route 88 Interceptor - Town Line to Millcreek PS	1.790	1.007	2.797	64.0%	36.0%
Millcreek PS & Force Main	1.076	1.998	3.074	35.0%	65.0%
Millcreek Interceptor	2.030	1.595	3.625	55.5%	44.5%
Treatment Facility (average design flow)	0.468	1.092	1.560	30.0%	70.0%
Cumberland Route 1 Sewer Extension to Johnson Rd PS	0.144	0.490	0.634	22.7%	77.3%
Existing Sewers & Mains - Johnson Rd to Millcreek	0.144	0.216	0.360	40.0%	60.0%
Johnson Road PS (gallons pumped per minute)	100	150	250	40.0%	60.0%

* = Peak flow unless noted otherwise

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Introduction

The appendix contains the following:

- Portland Economic Scorecard – Selected Detail charts
- Water Benchmark Data
- Portland Water District Rate Sheet Summary
- Customer Satisfaction Survey
- Board of Trustees' Orders and Resolutions
- Glossary

Portland Economic Scorecard

The Portland Community Chamber issued 'Portland's Economic Scorecard 2015' to help understand how Portland is performing economically. A summary table is in the Introduction. Some of the details are listed below.

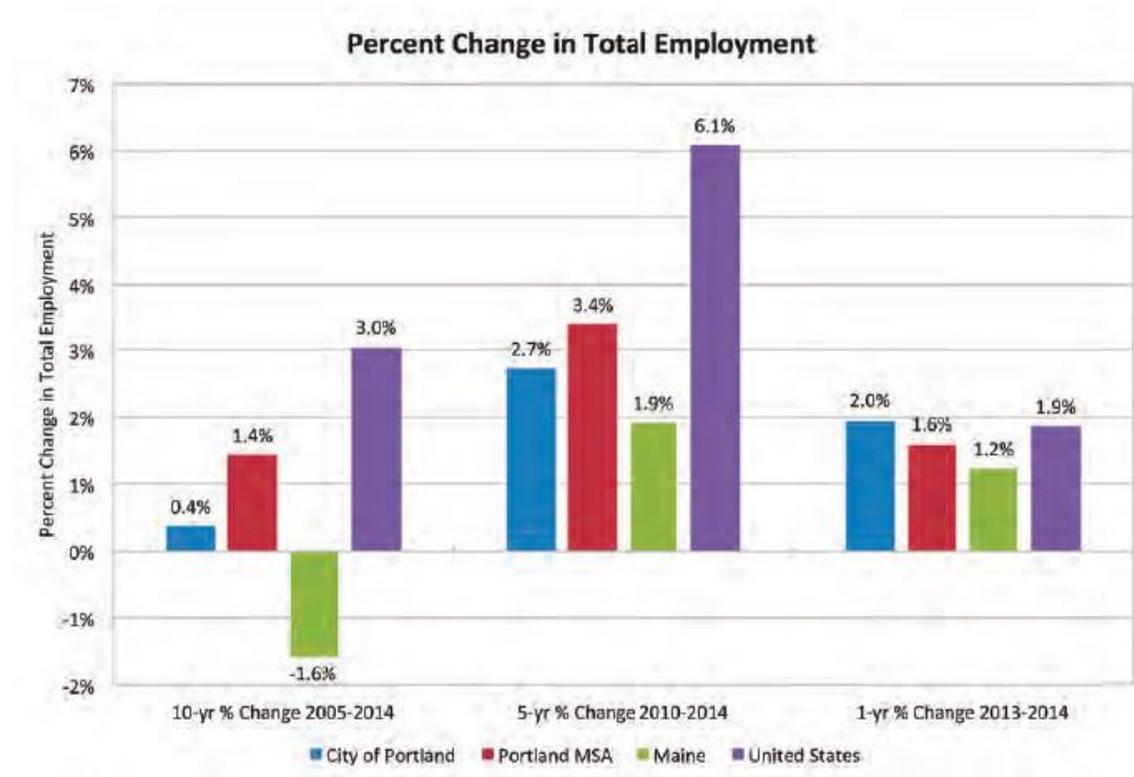
Total Employment Growth

Keeping Up ↔

TARGET: Annual employment growth will exceed the national average

Between 2013 and 2014, employment in the City of Portland increased by 2.0%, compared to a 1.9% increase nationally.

Over the five-year period from 2010 to 2014, Portland experienced a 2.7% increase in total employment. At the regional level (Portland MSA) the increase was 3.4%, while Maine overall gained 1.9%. National employment growth outpaced all the comparison geographies, with a 6.1% increase. Between 2005 and 2014, employment in the city increased by 0.4%, compared to a 1.4% increase regionally and a 1.6% decrease in Maine. At the national level, employment grew by 3.0% during the ten-year period.



Why is this of significance to Portland Water District?

Limited employment growth will limit growth in new customers.

Portland Economic Scorecard (continued)

Unemployment Rate

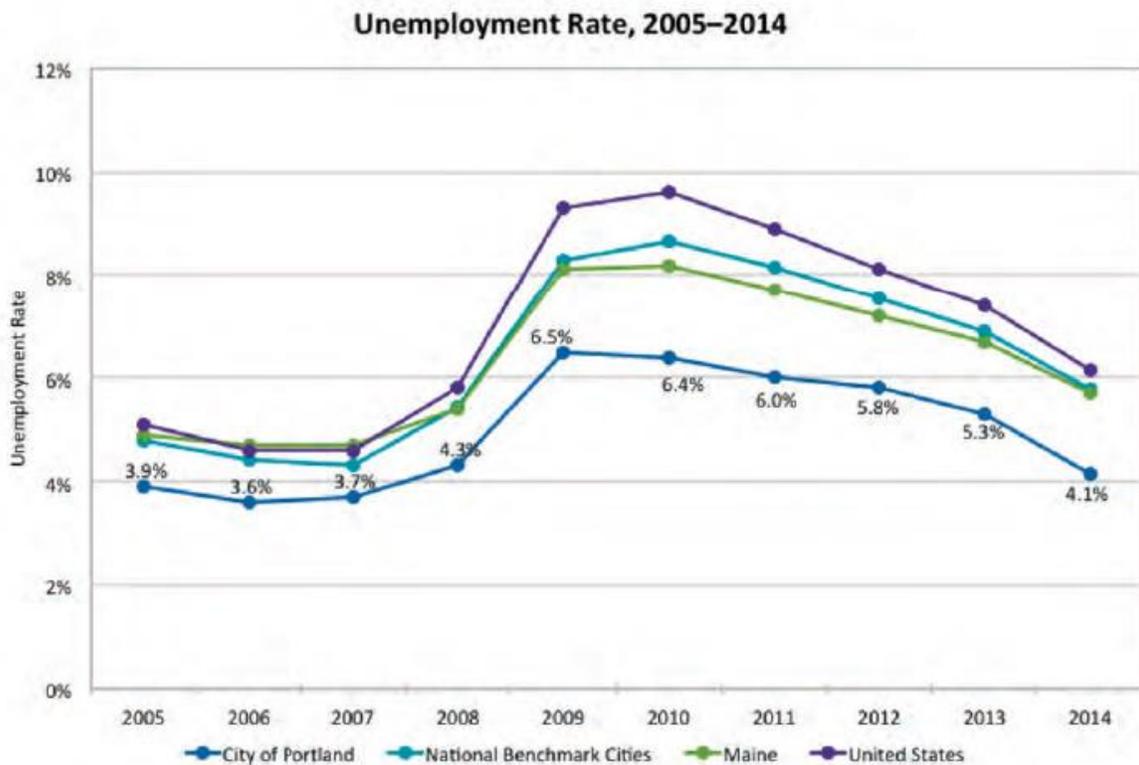
Exceeding ↑

**Meaning a lower unemployment rate*

TARGET: The annual city unemployment rate will be below the national benchmarks

From 2005 to 2014, the annual unemployment rate for the City of Portland has remained lower than that of the national benchmark cities.

During this period, the unemployment rate for the City of Portland experienced a low of 3.6% in 2006, rose to a high of 6.5% in 2009, and has since dropped to 4.1% in 2014. Portland's 2014 level of 4.1% compares to 5.7% for the national benchmark cities, 5.7% for Maine, and 6.2% for the U.S. as a whole.



Why is this of significance to Portland Water District?

Because relatively more customers retained their jobs, the impact on the District's ability to collect water revenue was less than others. The District did see a reduced level of efforts in dealing with delinquent accounts in the past couple of years.

Portland Economic Scorecard (continued)

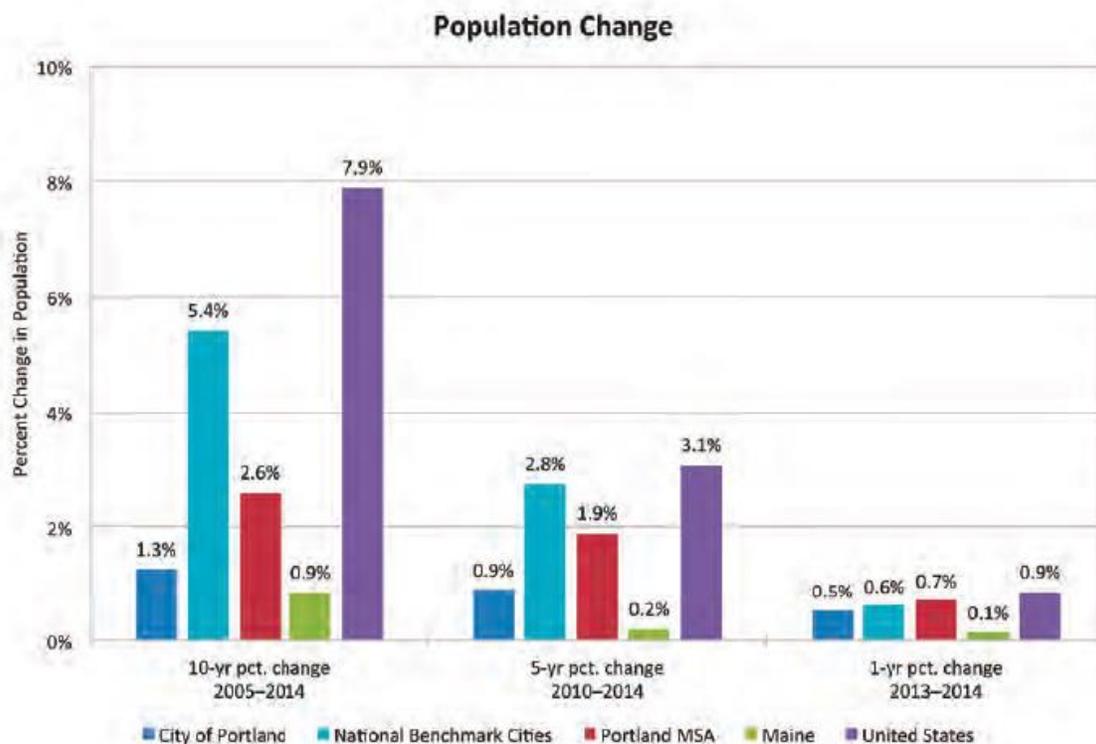
City Population Growth

Keeping Up ↔

TARGET: Annual city population growth will equal the national benchmarks.

Between 2013 and 2014 the City of Portland experienced comparable population growth (0.5%) to the national benchmark cities (0.6%).

From 2010 to 2014, the population of the City of Portland increased by 0.9%, while the national benchmark cities increased by 2.8%. From 2005 to 2014, the population of the City of Portland increased by 1.3%, while the national benchmark cities increased by 5.4%.



Why is this of significance to Portland Water District?

Limited population growth in new customers resulting in any cost interest born by existing customers. Like other areas, the population is also aging. This will most likely cause household size, and thus average household water consumption to decline.

Portland Economic Scorecard (continued)

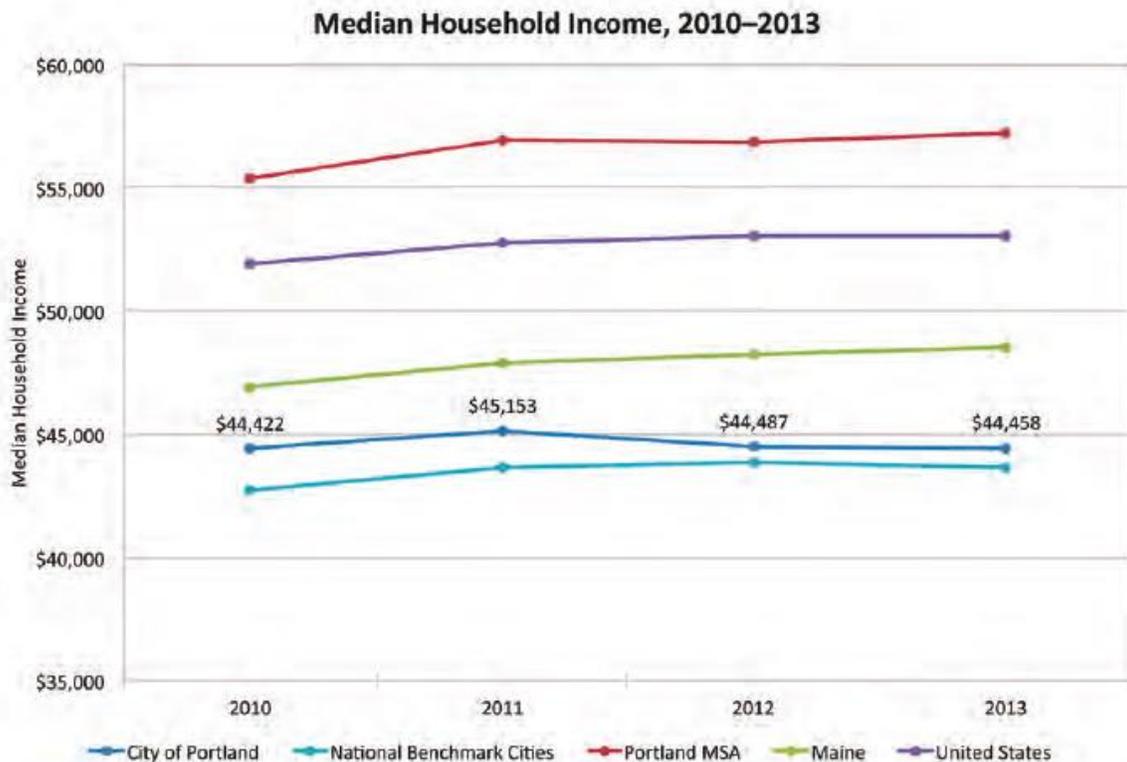
Median City Household Income

Keeping Up ↔

TARGET: Annual city median household income will exceed the national benchmarks.

On average in 2013 households in the City of Portland have slightly higher incomes than the national benchmark cities, but the gap has been closing since 2010.

In 2013, the median household income in the City of Portland was \$44,458. This was higher than the national benchmark cities (\$43,675) and lower than the median for the Portland MSA (\$57,193), Maine (\$48,543), and the national average (\$53,046). Between 2012 and 2013, the City of Portland's median household income decreased slightly, but generally held level.



Why is this of significance to Portland Water District?

Currently the average household spends 0.5% of their income on water. One national affordability standard is no more than 2% of the household income should be allocated to pay for water service. With the expected rate increase in the coming years to pay for aging infrastructure and relatively small increase in median income, the percent spent on water will increase but should not meet the 2% threshold in the foreseeable future.

Portland Economic Scorecard (continued)

Housing Affordability- Ownership

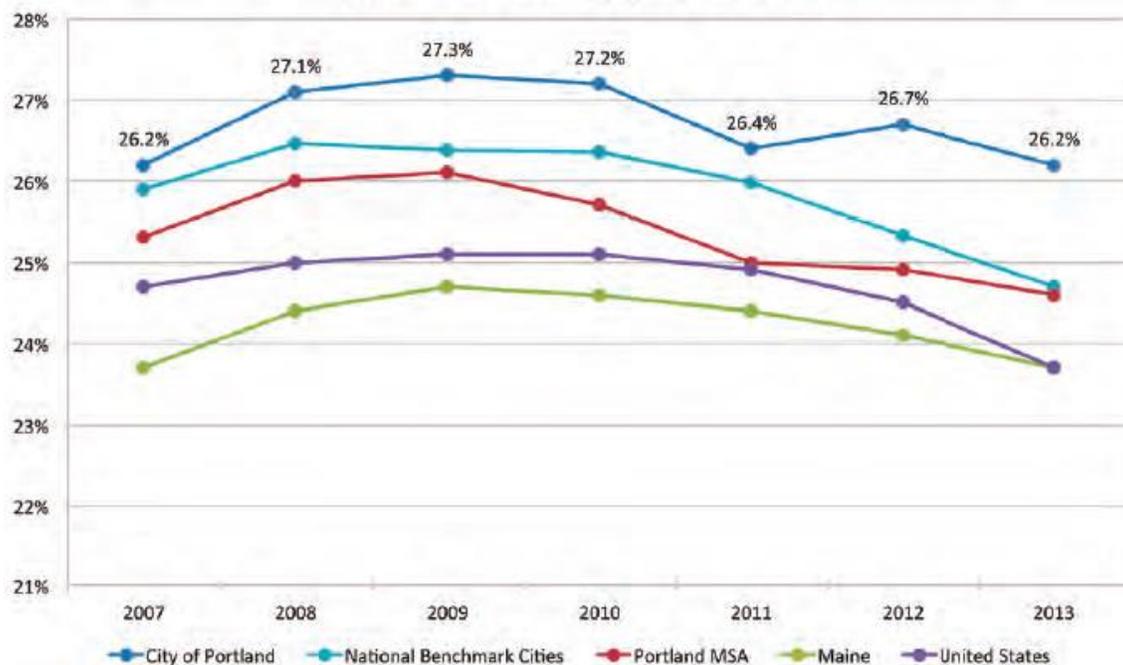
Lagging ↓

TARGET: Portland's median monthly housing costs as a percent of household income will be equal to or below the national benchmarks.

In terms of home ownership affordability, as measured by average monthly home ownership costs as a percent of income, the City of Portland is less affordable (26.2%) than the national benchmark cities (23.6%).

The City of Portland's median monthly homeownership costs as a percent of household income was consistently above that of the national benchmark cities, the Portland MSA, Maine, and the U.S. between 2009 and 2013. In 2013, these costs accounted for 26.2% of household income in the City of Portland, compared to 23.6% in the national benchmark cities, both experiencing a decrease from 2012.

Median Monthly Housing Costs as a Percent of Household Income, Owners with a Mortgage, 2009–2013



Why is this of significance to Portland Water District?

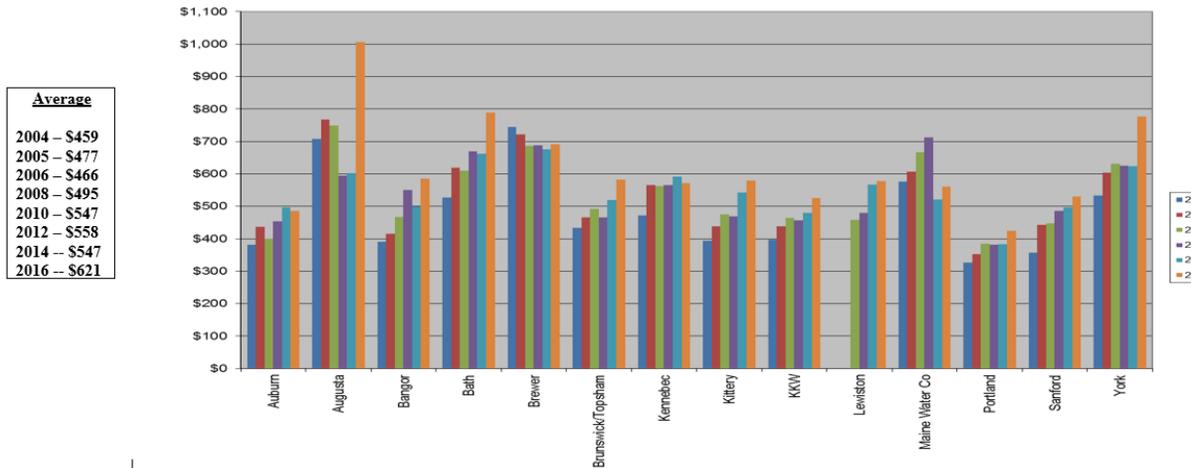
Heating, real estate tax, sewer fees and other housing costs will make customers less able or willing to afford future water rate increases.

Water Benchmark Data

Maine Water Utilities Survey Results

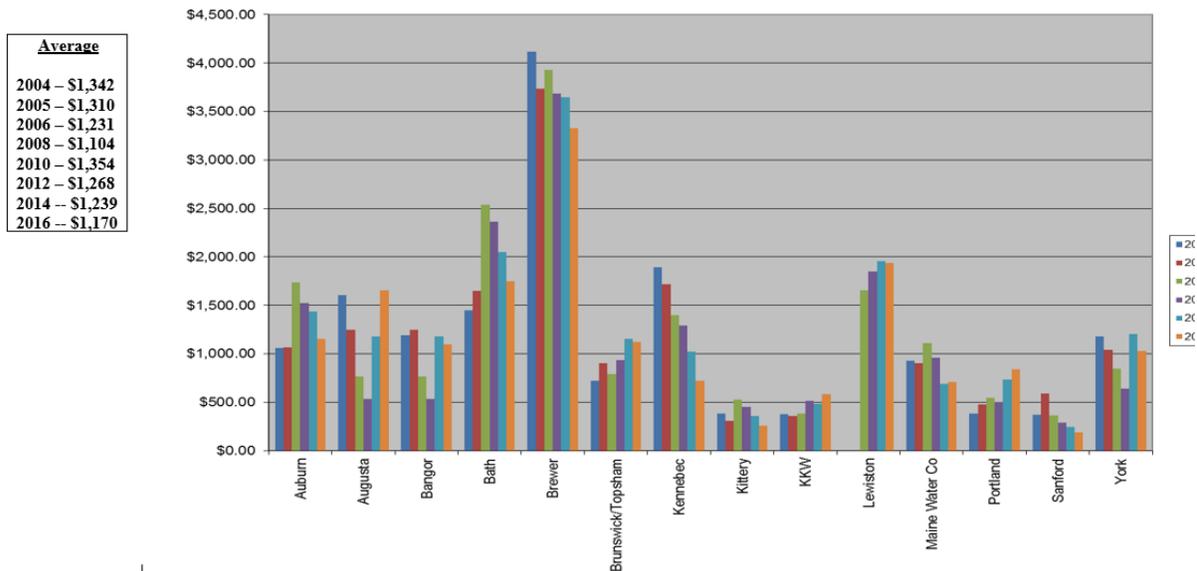
The District participates in a survey of Maine water utilities. Two selected items surveyed are average customer revenue per thousand and debt per capita.

Key Ratio: **Average Customer Revenue**
 Significance: Important to understand customer revenue for rate purposes.
 Calculation: *PUC Annual Report Page F-4 Operating Revenue divided by W-3 Number of Customers*



District's average revenue collected per customer is lower than other utilities indicating the relative efficiency of the District's operation.

Key Ratio: **Total Debt Per Capita**
 Significance: Measures debt burden relative to service area population.
 Calculation: *PUC Annual Report Page F-2 Account 221/232 Bond/Notes Payable divided by W-3 Number of Customers*



District has relatively lower debt service costs per capita, indicating the relative higher ratepayer capacity to pay for additional debt financing.

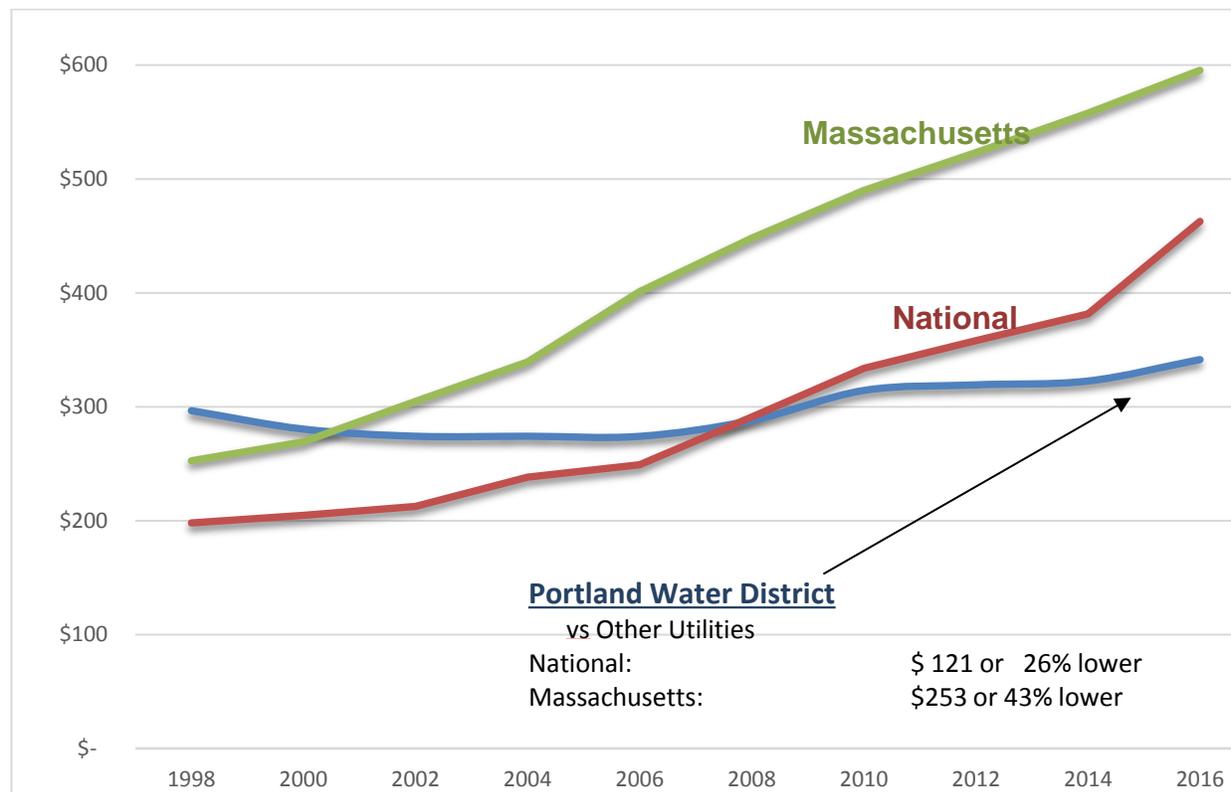
Water Benchmark Data (continued)

Water Rates

The District's rates are well below the Environmental Protection Agency's affordability standard – water rates should not exceed 2% of median income. The District's service territory is a subset of Cumberland County and is the primary reason Cumberland County's rates are the lower than other Maine counties.

	<u>Maine Median Income (MSHA) 2010-2016</u>				<u>Percent of Median Income</u>			
	<u>2010</u>	<u>2012</u>	<u>2014</u>	<u>2016</u>	<u>2010</u>	<u>2012</u>	<u>2014</u>	<u>2016</u>
Androscoggin	\$40,653	\$45,699	\$44,921	\$47,537	1.06%	1.02%	1.19%	1.12%
Cumberland	\$52,459	\$57,267	\$57,461	\$60,051	0.84%	0.74%	0.79%	0.84%
Kennebec	\$44,668	\$46,904	\$46,808	\$46,917	1.47%	1.24%	1.28%	1.68%
Penobscot	\$40,301	\$43,601	\$43,734	\$44,271	1.43%	1.42%	1.34%	1.44%
Sagadahoc	\$54,754	\$56,865	\$56,733	\$53,298	1.21%	1.27%	0.58%	1.38%
York	\$54,134	\$56,552	\$57,348	\$57,919	0.93%	0.90%	0.93%	1.04%
Averages	\$47,828	\$51,148	\$51,168	\$51,666	0.99%	0.94%	0.87%	1.07%
Portland Water District	\$48,123	\$47,841	\$44,487	\$46,280	0.65%	0.67%	0.72%	0.69%

The District's water rates for a typical household are relatively lower than other Maine, Massachusetts and National utilities. Since the 2016 survey, the District rates have increased to \$367 from \$341. The budget requests an average increase of 4.4% to \$381. Even after the increase, rates will have only increased 29% since 1998, which is an average increase of a little more than 1.5% annually.



Portland Water District Rate Sheet Summary

A summary of Portland Water District’s Water Rates and Municipalities’ Sewer Rates as of October 1, 2018 is presented below. Water and Sewer is billed based on actual water consumption for all communities except Falmouth Wastewater customers. The chart shows the typical usage by the number of occupants in the household.

PORTLAND WATER DISTRICT RATE SHEET

Typical monthly consumption and charges for Residential users with 5/8" meter on daily usage of 60 gallons per person
Usage is rounded to nearest hundred cubic feet (hcf). 1 HCF = 748 gallons.

WATER RATES				
Effective Date		05/01/18		
# OF PEOPLE	GALLONS = HCF	MEMBERS	NON-MEMBERS	
1	1,800 =	2	11.75	13.52
2	3,600 =	5	18.80	21.65
3	5,400 =	7	23.50	27.07
4	7,200 =	10	30.55	35.20
5	9,000 =	12	35.25	40.62
6	10,800 =	14	39.95	46.04
7	12,600 =	17	47.00	54.17
8	14,400 =	19	51.70	59.59
9	16,200 =	22	58.75	67.72

SEWER RATES						
07/01/18	09/01/18	07/01/18	03/01/16	01/01/13	04/01/09	11/01/06
PORTLAND	CUMBERLAND	SOUTH PORTLAND	CAPE ELIZABETH	WESTBROOK	WINDHAM	GORHAM
19.90	47.96	10.20	55.18	17.26	48.84	20.03
49.75	64.52	25.50	72.22	35.65	48.84	38.90
69.65	75.56	35.70	83.58	47.91	55.32	51.48
99.50	92.12	51.00	100.62	66.30	65.04	70.35
119.40	103.16	61.20	111.98	78.56	71.52	82.93
139.30	114.20	71.40	123.34	90.82	78.00	95.51
169.15	130.76	86.70	140.38	109.21	87.72	114.38
189.05	141.80	96.90	151.74	121.47	94.20	126.96
218.90	158.36	112.20	168.78	139.86	103.92	145.83

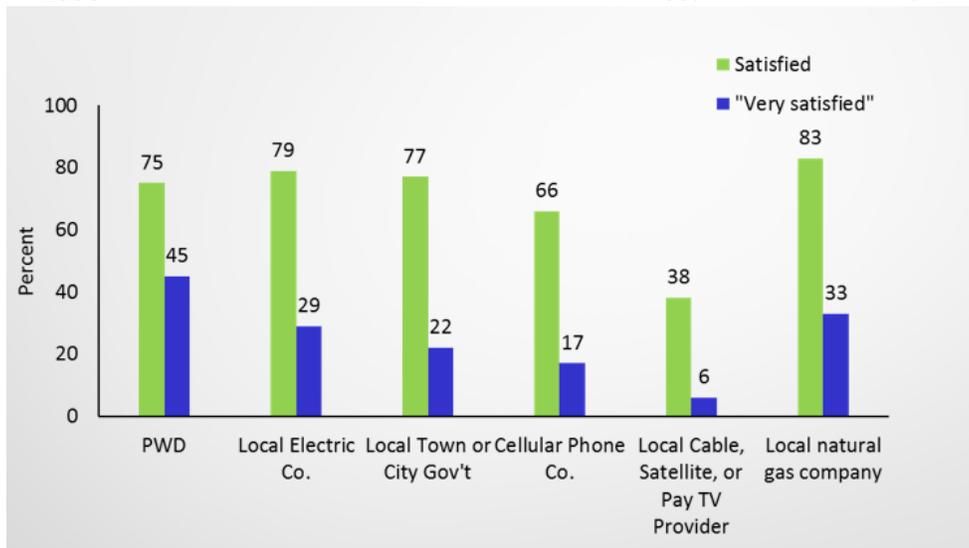
WATER RATES	Min Charge includes 1 HCF	Per additional HCF 2-30 HCF	Per additional HCF 31-100 HCF	Lifeline Water Rate (Reduction in Monthly Minimum Charge)	Minimum includes 1 HCF
MEMBERS	9.4	2.35	2.02	MEMBERS	2.35
NON-MEMBERS	10.81	2.71	2.33	NON-MEMBERS	2.71

SEWER RATES	Min HCF	MIN CHARGE	HCF	Municipal Contacts for Sewer	
PORTLAND	1	9.95	9.95	Rachel Smith	874-8833
CUMBERLAND	0	36.92	5.52	Pam Bosarge	829-2207
SOUTH PORTLAND	1	5.10	5.10	Colleen Mitchell	767-7675
CAPE ELIZABETH	1	49.50	5.68	Mike McGovern	799-5251
WESTBROOK	1	11.13	6.13	Eric Dudley	854-9105 x222
GORHAM	1	13.74	6.29	Freeman Abbott	222-1608
				Laurie Nordfors	222-1675
WINDHAM	5 hcf per unit	48.84	3.24	Anthony Plante	892-1907
FALMOUTH eff 07.01.2018	RATE PER LIVING UNIT	Commercial Fixtures > 17	SCHOOLS	Diane Moore	781-4462
	\$42.90 x # of units (Residential)	(\$42.90 x # of units) + (# of fixtures - 17 fixtures x \$2.03) (Com'l combination of fixtures)	\$39.06 for every 15 students (Schools)	Note: These are the most common sewer rates, but this is not a complete list.	

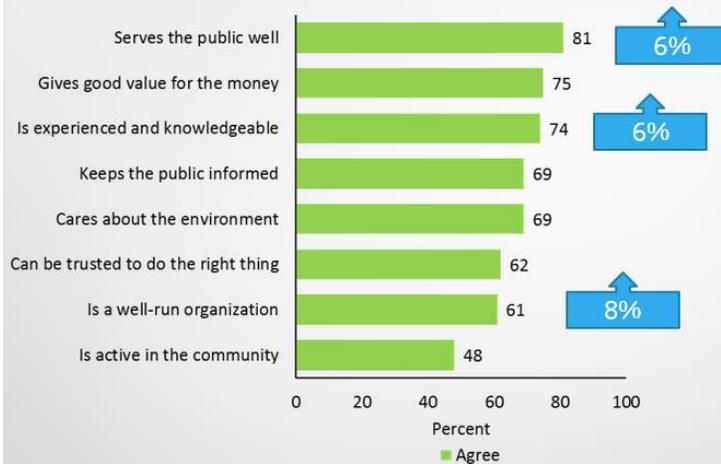
Customer Satisfaction Survey

A periodic customer satisfaction survey is conducted. The last survey was conducted in 2017. A summary of the results is below and indicate that overall satisfaction remains high relative to other local utilities.

Year	Overall	Water Service/Quality	Sewer
2017	75%	89%	85%
2014	82%	88%	70%
2011	87%	92%	71%
2008	85%	90%	76%
2005	88%	89%	78%
2002	89%	90%	83%
2000	89%	91%	79%
1998	NA	85%	74%



General Reputation Trends



Generally, respondents (92%) feel very positive about the Portland Water District.



Proposed Board of Trustees' Orders and Resolutions



Portland Water District
From Sebago Lake To Casco Bay

BOARD OF TRUSTEES / AGENDA ITEM SUMMARY

Agenda Items:

Date of Meeting: November 26, 2018

Subject: Proposed Budget Orders

Presented By: Carrie Lewis

The Administration and Finance, Operations and Planning Committees reviewed the 2019 Budget and CIP for which they have jurisdiction. Below are the recommended motions to be considered at the regular meeting.

The proposed motion accepts the 2019 budget and authorizes billing the municipalities for wastewater and billing services.

Order 18-033

ORDERED that the 2019 Budget and Wastewater Assessments as presented by the General Manager are accepted and adopted and shall be filed with the minutes of this meeting; and pursuant to Section 12 of the District's Charter, to assess for 2019 the participating municipalities for wastewater related costs as follows:

Town of Cape Elizabeth	\$ 1,572,912
Town of Cumberland	905,364
Town of Falmouth	314,112
Town of Gorham	1,133,436
City of Portland	12,616,080
City of Westbrook	2,539,800
Town of Windham	366,768

and to assess non-participating municipal corporations for billing-related costs as follows:

City of South Portland	\$ 201,132
Scarborough Sanitary District	11,256

The motion accepts the proposed capital improvement plan and authorizes staff to implement the 2019 projects within the restrictions stated below and in compliance with the purchasing policy guidelines.

Order 18-034

ORDERED that the 2019-2023 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2019 projects and to authorize the General Manager to award contracts for approved projects to the lowest bidder if the bid is within the project budget.;

BE IT FURTHER ORDERED that the General Manager shall solicit bids or proposals and to partner with Municipalities, MDOT and Developers for the year 2019 for the replacement and extension of water mains, services, valves and hydrants as outlined in the Water Distribution Systems Upgrades Program and to authorize the General Manager to award and enter into contracts if the bid or partnering proposals are within the overall program budget.

Before approving water rate adjustment, staff will provide additional information for the Board's consideration. Additionally, if the Board decides a rate adjustment is necessary, public notice will be provided to all customers and a public hearing will be held.

Order 18-035

ORDERED that the Board of Trustees directs the General Manager and Treasurer to undertake the preliminary steps necessary to prepare a rate adjustment of approximately 4.4% for further Board consideration.

In compliance with Internal Revenue Service (IRS) regulation, an 'intent to borrow' motion must be approved by the Board before expenditures are incurred on a project that may be financed with tax-exempt financing. Resolutions 18-010 to 18-013 are intent to borrow motions for each fund. Before a bond is actually authorized or issued, a public hearing will be held. Subsequent to the hearing, the Board will consider authorizing the bond.

Resolution 18 - 010

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for water fund projects identified in the 2019 CIP. The full form of the resolution is attached hereto and incorporated herein by reference, and shall be part of the minutes of this meeting.

Resolution 18 - 011

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Cape Elizabeth wastewater fund projects identified in the 2019 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be part of the minutes of this meeting.

Resolution 18 - 012

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Portland wastewater fund projects identified in the 2019 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be a part of the minutes of this meeting.

Resolution 18 - 013

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Westbrook, Gorham and Windham wastewater fund projects identified in the 2019 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be a part of the minutes of this meeting.

Resolution 18-010
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Water Fund)

WHEREAS, the Portland Water District (the “Issuer”) intends to proceed with the projects described in section 2 below (the “Projects”); and

WHEREAS, the Issuer intends to finance some or all of the costs of the Projects through the issuance of bonds or notes in anticipation thereof; and

WHEREAS, the Issuer may incur certain of the costs of the Projects prior to the issuance of such notes or bonds and the Issuer expects to be reimbursed from the proceeds thereof; and

WHEREAS, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such notes or bonds.

NOW, THEREFORE, the Issuer does hereby declare its official intent as follows:

1. **Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$13,975,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property with respect to which reimbursements will be made:
 - Construction or installation of new water mains, valves, hydrants, services and meters;
 - Acquisition of vehicles, leak detection and related equipment;
 - Renovation of various water facilities;
 - Acquisition and installation of various computer-related equipment;
 - Building improvements at the Douglass Street facilities; and
 - Construction of new 407 zone pump tank and related infrastructure.
3. **Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
4. **Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
5. **Authority for Declaration.** This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

Resolution 18-011
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Cape Elizabeth Sewer Fund)

WHEREAS, the Portland Water District (the “Issuer”) intends to proceed with the projects described in section 2 below (the “Projects”); and

WHEREAS, the Issuer intends to finance some or all of the costs of the Projects through the issuance of bonds or notes in anticipation thereof; and

WHEREAS, the Issuer may incur certain of the costs of the Projects prior to the issuance of such notes or bonds and the Issuer expects to be reimbursed from the proceeds thereof; and

WHEREAS, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such notes or bonds.

NOW, THEREFORE, the Issuer does hereby declare its official intent as follows:

1. **Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$135,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property located in the Town of Cape Elizabeth with respect to which reimbursements will be made:
 - Replacement of obsolete assets or installation of new equipment at various pump stations, including Maiden Cove pump station, and
 - Replacement or installation of equipment at the treatment plant, including projects related to the plant piping and rotary drum thickener.
3. **Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
4. **Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
5. **Authority for Declaration.** This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

Resolution 18-012
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Portland Sewer Fund)

WHEREAS, the Portland Water District (the “Issuer”) intends to proceed with the projects described in section 2 below (the “Projects”); and

WHEREAS, the Issuer intends to finance some or all of the costs of the Projects through the issuance of bonds or notes in anticipation thereof; and

WHEREAS, the Issuer may incur certain of the costs of the Projects prior to the issuance of such notes or bonds and the Issuer expects to be reimbursed from the proceeds thereof; and

WHEREAS, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such notes or bonds.

NOW, THEREFORE, the Issuer does hereby declare its official intent as follows:

1. **Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$6,365,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property located in the City of Portland with respect to which reimbursements will be made:
 - Renovation and repair of equipment and facilities at the East End Treatment Plant, including projects related to the primary clarifier, nitrogen monitoring, heating, back-up power and SCADA systems;
 - Renovation and repair of equipment and facilities at the Peaks Island Treatment Plant, including compress air system; and
 - Replacement of equipment at various pump stations, including Stroudwater and Baxter Boulevard Pump Stations.
3. **Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
4. **Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
5. **Authority for Declaration.** This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

Resolution 18-013
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Westbrook, Gorham and Windham Sewer Funds)

WHEREAS, the Portland Water District (the “Issuer”) intends to proceed with the projects described below (the “Projects”); and

WHEREAS, the Issuer intends to finance some or all of the costs of the Projects through the issuance of bonds or notes in anticipation thereof; and

WHEREAS, the Issuer may incur certain of the costs of the Projects prior to the issuance of such notes or bonds and the Issuer expects to be reimbursed from the proceeds thereof; and

WHEREAS, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such notes or bonds.

NOW, THEREFORE, the Issuer does hereby declare its official intent as follows:

1. Declaration of Intent. The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$ 2,390,000.

2. General Description of Property to which Reimbursement Relates. The following is a reasonably accurate general functional description of the type and use of the property located in the City of Westbrook with respect to which reimbursements will be made:

- Replacement of screen on various other CSO structures, and
- Renovation and repair of equipment and facilities at the Westbrook Regional Treatment Plant, including aeration, secondary clarifier, dewatered sludge cake discharge, sludge storage odor control, polymer and plant wiring projects, and
- Depot Street pump station, located in Windham, and related infrastructure.

3. Public Availability of Official Intent. This Declaration of Official Intent shall be maintained as a public record of the Issuer.

4. Treasury Regulations. This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.

5. Authority for Declaration. This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

Glossary/Acronyms

Term	Description
407 Zone	A water pressure zone, supported by pump stations and water tanks, that is at an elevation above the District's water source (Sebago Lake).
ABC Project	ABC stands for "Asset, Billing & Customer Relations". It involves the replacement of the District's current asset management and customer billing/information systems.
Accurate bill index	The ratio of correct read adjustments on accounts to the total of all accounts.
Accrual Basis	The method of accounting under which revenues are recorded when they are earned (whether or not cash is received at that time) and expenditures are recorded when goods and services are received (whether or not cash disbursements are made at the time)
AMaP	Asset Management and Planning group, consisting of Engineering and Environmental Services
Amortization	The write-off of costs that has a financial benefit exceeding 1 year but is not a capital expenditure. The write-off period is determined based on an estimate of asset's useful life.
AMR	Automated Meter Reading
ARRA	American Recovery and Reinvestment Act of 2009. The federal stimulus law that provided federal subsidies for various projects in order to boost employment during a recessionary period.
Asset Information Management System	Computerized asset identification system used to document all asset maintenance schedules / procedures from day of acquisition to disposal.
AWWA	American Water Works Association

Glossary/Acronyms

BOD	Biochemical Oxygen Demand - a measure of organic material in the influent / effluent of the wastewater system expressed in lbs./ day
Bond	A written promise to pay (debt) a specified sum of money (called principal) at a specified future date (called the maturity date(s)) along with periodic interest payments at a specific percentage of principal (interest rate).
Capital Expenditure	Expenditures for a physical asset that exceeds \$5,000 and has a useful life of greater than 5 years or extends the useful life of an existing asset for more than 5 years.
CCTV	Closed Circuit Television
Combined Sewer Overflow (CSO)	CSO's are a part of a combined sewer system that contains both sanitary waste and storm water. Under high flow events, generally due to wet weather that exceed the sewer system's capacity, CSO's will discharge excess flows into nearby bodies of water.
CPE	Comprehensive Plant Evaluation
Cross Connection Fees	Fees collected for work relating to the inspection of water backflow devices.
Cryptosporidium	A one cell parasite that originates from the feces of infected animals and humans that can cause gastrointestinal illness.
CEWWTF	Cape Elizabeth Wastewater Treatment Facility
Customer Activation Fees	Fees charged customer if a new billing account needs to be created; typically when a customer moves into a new home.
Customer Connection Fees	Applications fees charged to customers requesting to install a new water main, service line or meter.
Customer Penalties	Disconnection fees charged to customers for non-payment of services.

Glossary/Acronyms

Deferred Costs	Costs that have been incurred for a purpose that has a beneficial period in excess of one year but does not culminate into a capital expenditure. These costs are normally written-off to operating expense over the estimated useful life of the item.
DEP	Department of Environmental Protection, State of Maine
Depreciation	The write-off of an asset based on the decrease in value of property over its estimated useful life.
DHHS	Department of Health and Human Services
EEWWTF	East End Wastewater Treatment Facility
Enterprise Fund	A proprietary fund used by governments to account for business-type activities. Such a fund is appropriately used for operations that are financed and operated in a manner similar to private business enterprise where the intent is that the costs be financed or recovered primarily through user charges.
EPA	Environmental Protection Agency, Federal Agency
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency - a federal agency that provides financial assistance after declared national disasters.
Fire Service Outage Index	Standard to monitor hydrants returned to service within 3 business days.
Force Main (Sewer)	Sewer force mains are necessary when gravity flow is not sufficient to move water runoff and sewage through a gravity line. Force mains move wastewater under pressure by using pumps or compressors located in lift stations.

Glossary/Acronyms

Fund	An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and /or other resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives.
Generally Accepted Accounting Principal (GAAP)	Uniform minimum standards of, and guidelines for, external financial and reporting. They govern the form and content of basic financial statements of an entity. GAAP encompasses the conventions, rules and procedures necessary to define accepted accounting practice at a particular time. The primary authoritative statements on the application of GAAP to local governments are Government Accounting Standards Board pronouncements (GASB).
HCF	Hundred Cubic Feet- the standard measure used for billing water usage, 1 HCF is equal to 748 gallons of water, 1 cubic foot of water is equal to 7.48 gallons.
Industrial Pretreatment Program	A program responsible for permitting and monitoring industrial sewer customers who discharge significant quantities of non-domestic wastewater to the collection system to ensure their activities do not impact our operation or the receiving waters.
Infiltration/Inflow	Ground water that enters the sanitary sewer system through infrastructure weaknesses.
Interest from Customers	Late fees charged to past due balances. An account is considered delinquent 25 days after the bill is mailed to customer.
Jobbing Revenue	Revenue for work performed by District employees which is billable to outside parties.
LOX	Liquid Oxygen, LOX is used by the District in the production of ozone which is used in the water treatment process
LTD	Long Term Debt

Glossary/Acronyms

MDOT Cash Reserve	Funds received from Maine Department of Transportation from sales of land to be reserved for future land purchases.
MEANS	Main Extension and New Services program
MMBB	Maine Municipal Bond Bank
Ozone	A gas formed by electrical discharge in air used as an oxidizing, deodorizing and bleaching agent in the purification of water.
Pentamation	Accounting software used by Portland Water District
PI	Plant Information - a database used to automatically compile performance information on a specific asset.
PIWWTF	Peaks Island Wastewater Treatment Facility
Proprietary Funds	Accounting funds established to separate assets and operational costs based on the type of system (i.e. Water or Wastewater) or Wastewater municipality.
PS	Pump Station
PUC	Public Utilities Commission, a State of Maine agency charged with regulating utilities.
Quasi-municipality	Independent government entity as defined by state law. It has many of the responsibilities and rights of a typical governmental entity.
R&R Multi-fund Assets	Assets utilized by all funds and paid for by allocations to the funds (i.e. computers, meters, administrative office space).
Renewal and Replacement Funds	A cash reserve created to fund smaller capital projects.
Sanitary Sewer Overflows (SSO)	Sewer systems that contain only sanitary flows that may discharge directly into water bodies without being treated.
SCADA	Supervisory Control and Data Acquisition

Glossary/Acronyms

SLWTF	Sebago Lake Water Treatment Facility
SOP	Standard operating procedure
Spatial Scheduling	Use of the district's geographic information system to schedule customer appointments on a daily basis to best utilize manpower and vehicle usage.
SRF	State Revolving Fund- Maine Municipal Bond Bank program for long-term financing
STD	Short Term Debt
SU	Standard units of measuring Ph with a range of 1 - 14.
Sub-meters	Meters installed to measure water that will not be returned to the sewer system for disposal. This water may be used for irrigation purposes or other outside use and therefore should not be included in the calculation of wastewater disposal charges.
SWTR standards	Surface Water Treatment Rules
TCR samples	Total Coliform Rule
10th Percentile Chlorine Residual	Minimum residual found in water samples approximately 90% of the time.
TIF	Tax Increment Finance - a designated municipal fund established to fund structural improvements
TPS	Thickened Primary Sludge
Tropic State Index	Calculated measure of lake productivity with clear, clean water as the desired result. Range of less than 30 to greater than 100 with the lower the number, the better the results.
TSS	Total Suspended Solids - a measure of suspended material in the influent / effluent of the wastewater system expressed in lbs. / day

Glossary/Acronyms

Unaccounted for Water	Water not measured by metered flow such as fire service use, main leaks, etc.
UV	UV stands for Ultra Violet. UV water or wastewater treatment systems use special lamps that emit UV light of a particular wavelength that have the ability, based on their length, to disrupt the DNA of micro-organisms.
Water Outage Index	Index of the ratio of customer outage hours/million hours available. Customer outage hours are computed by taking the # of customers without water service times the number of hours the outage lasts. The hours available is derived by taking the number of customers times number of days times 24 hours per day.
Watershed	A stretch of high land dividing the areas drained by different rivers or river systems into Sebago Lake.
Watershed Reserve	PUC allowed reserve of Water revenue to be used for future land purchases to protect PWD's watershed.
Weighted average unit price	Total cost of a product divided by the total product units
WGWRWWTF	Westbrook/Gorham/Windham Regional Treatment Facility
WIMS	Water information management solution (software)
WWPS	Wastewater Pump Station
WTF	(Drinking) Water Treatment Facility
WWTF	Wastewater Treatment Facility