

Portland Water District



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Portland Water District Budget – Reader’s Guide

The budget document is intended to provide practical and pertinent information about the Portland Water District’s financial planning and policies. The budget holds a wealth of information including how water and wastewater revenues are used to support infrastructure and fund future year’s development. Some questions we answer include:

How does the budget impact my water bill?

For information on how changes in the budget impact customers’ water bills, please see the Revenue Section.

How does it affect my municipalities’ sewer budget?

The Budget by Fund section includes a summary of each of the communities we provide wastewater services (Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham) and billing services (Falmouth, Scarborough, and South Portland).

How does the District spend its money?

See the Departmental Expense Section for information on how money is spent across the Water, Wastewater, Environmental, Engineering, and Administrative departments.

How can I participate in the process?

PWD members and the public at large are encouraged to join any of the Board meetings held on the 2nd and 4th Monday of every month. The Board will review the proposed budget at the November 21st meeting at 6pm. Meetings can also be seen on your local public access channel and on our website.

What water mains will be replaced in 2017?

For a complete list of proposed water main renewal projects please go the Capital Improvement section.

A complete list of the budget’s contents can be found in the Table of Contents.

The Portland Water District prides itself on serving Portland and the surrounding communities. We encourage members and the community to engage in discussions regarding water main renewal, water and wastewater treatment, and how best to protect Sebago Lake and its watershed. To stay up to date please visit www.pwd.org regularly or follow us on Facebook and Twitter.

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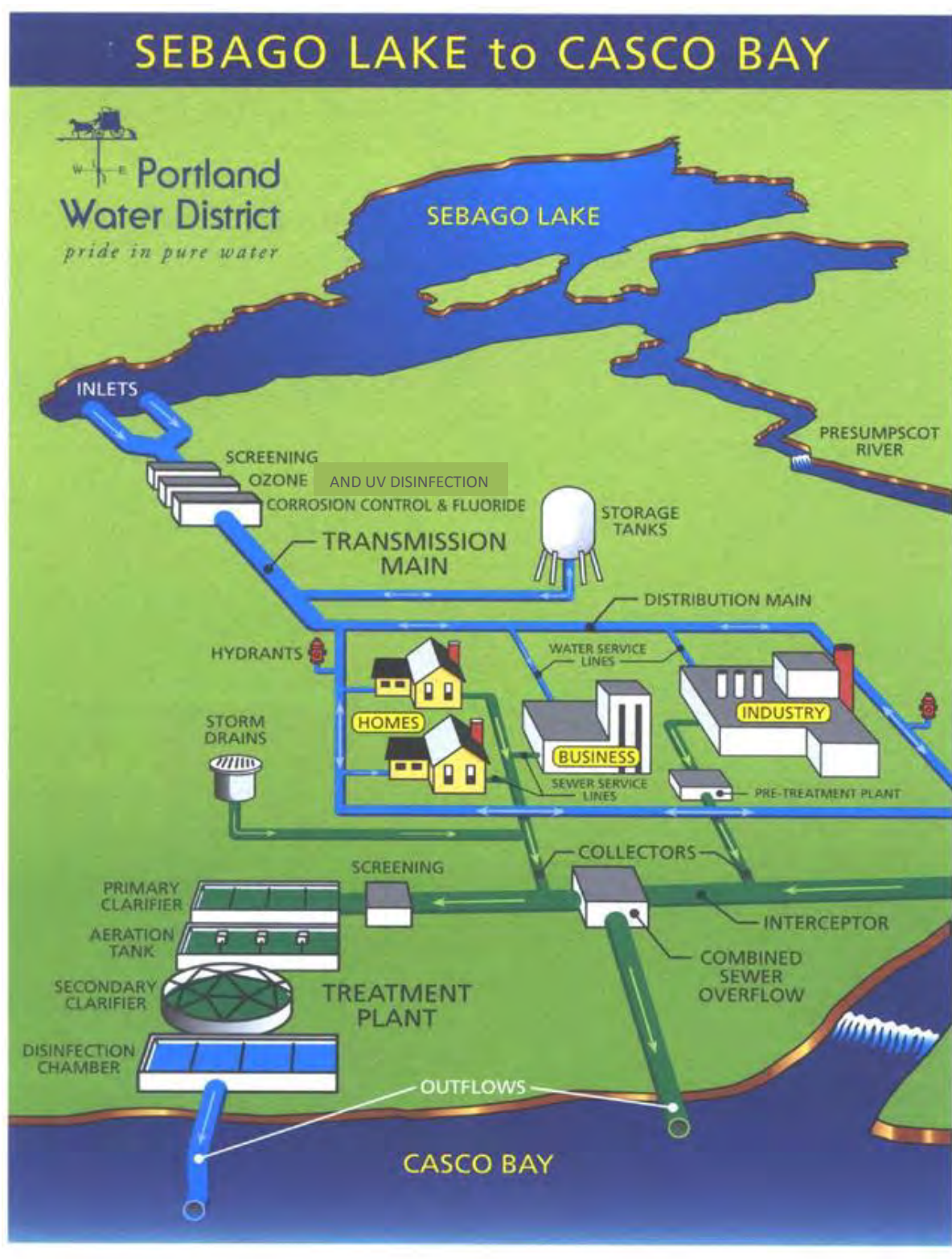
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Overview of the Water and Wastewater System

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





Ronald Miller

General Manager

Portland Water District

From Sebago Lake To Casco Bay

October 24, 2016

To the members of the Board of Trustees,

On behalf of the entire Management Team, I'm pleased to submit for your consideration the Portland Water District's Comprehensive Annual Budget Proposal for 2017. 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 109th year, please reflect on our past accomplishments, present challenges and opportunities, and future aspirations. Our dedicated full-time staff of 178 employees works every day to ensure tap water is delivered to the 200,000 inhabitants of Greater Portland, to provide adequate water for fire protection, and to treat wastewater before returning it to the environment.

Watershed Protection

Since the early 1900's, the District has spent significant resources to protect the water source by purchasing 2,500 acres of land surrounding Sebago Lake's lower bay and creating a robust watershed protection program. The 2017 budget includes an Environmental Services staff of eight with an operating budget of more than \$1,086,000 to maintain the excellent water source. Since Sebago is a multi-use lake and water quality is affected by activities in remote parts of the watershed, staff will continue to focus in 2017 on collaborative efforts to encourage lake stewardship. Efforts will continue to seek partners within the Sebago Lake watershed to limit development and preserve the forested land.

Water Treatment

In 1993, the Environmental Protection Agency granted the District a waiver to its rule that generally requires filtration of surface water supplies. The waiver was granted because of our excellent raw water quality and our strong watershed protection program. Although not filtered, our raw water is disinfected by an ozone and ultraviolet treatment processes to comply with Environmental Protection Agency's enhanced rules. The 2017 budget includes debt service payments for the treatment system upgrade of almost \$908,000, which is 4% of the total water fund budget.

Water Operations

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 \$30 million in water main renewal. The proposed budget commits an additional \$7.0 million to replace aging water main infrastructure. That commitment has reduced mains breaks to about 100 per year or 45% from its peak in 1987, and continues to address the miles of mains reaching the end of their useful life.

Wastewater Operations

The District's wastewater staff manages a collection system consisting of 118 miles of pipe and 75 pump stations to deliver a combined average of 21 million gallons of wastewater daily to our four treatment facilities. Three of the facilities were constructed in the mid-1970s and have undergone significant renovations. Continued efforts to renovate aging infrastructure in 2017 will include completing the work on the \$12 million aeration system upgrade at the Portland Wastewater Treatment Plant and beginning the construction of the \$1 million sludge dewatering system upgrade at the Westbrook Regional Wastewater Treatment Plant.

In addition to addressing aging infrastructure, wastewater staff will support Cape Elizabeth, Portland and Westbrook in reducing combined sewer overflows in their communities. The District may be impacted by additional storm water flows delivered to treatment facilities.

Support Services

Supporting the Environmental, Water and Wastewater Service departments are the Engineering and Administrative Service departments. Those departments provide engineering, computer system, financial, employee relations and customer services. Current challenges these departments are addressing include:

- **Infrastructure Assets:** PWD has adopted an asset management philosophy and has developed the data systems to support it. In 2017, the focus will be improving the data we have on a wastewater plants and pump stations.
- **Work Management/Customer Information System:** The existing information system is reaching the end of its service life. During 2017, the focus will be on selecting a new system and begin the process of implementing the system.
- **Public Relations:** Customers who have an understanding of the benefits of well-maintained system that delivers quality water to customers' homes and treats their wastewater 24/7 is important. Efforts will continue in 2017 with the 'value of water' campaign and water bottle water filling station grant program.

Financial Overview

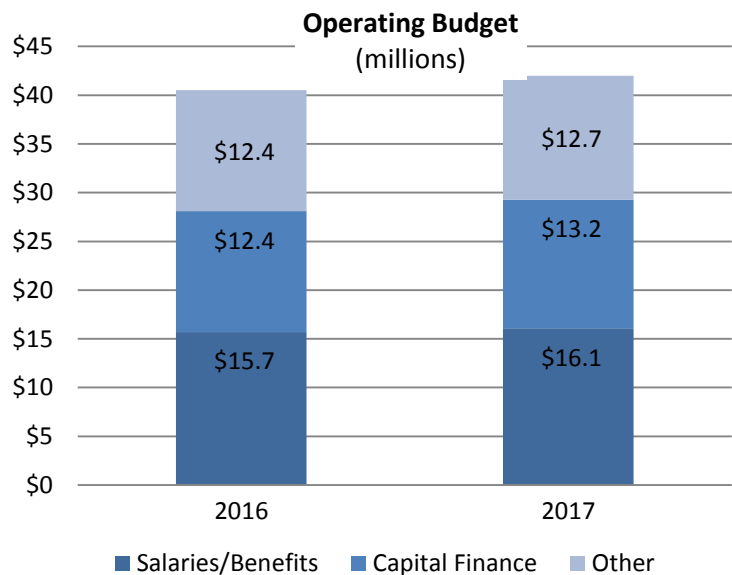
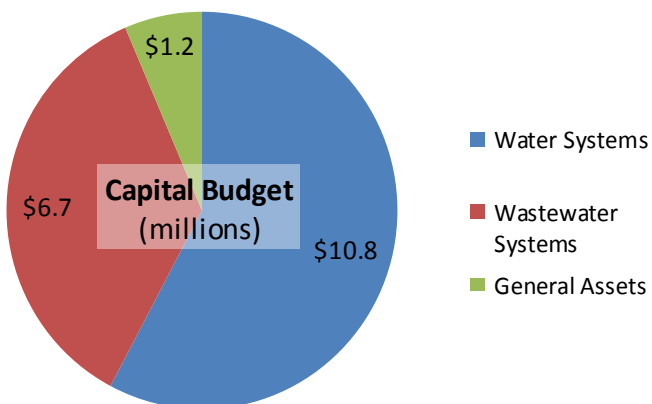
These activities are constrained by the financial resources that are available and affordable to our customers.

The proposed budget for 2017 recommends \$42 million for operations and \$18.7 million for the first year of a five-year Capital Improvement Plan. The operating budget consists of three major expense categories – salaries/ benefits (38%), capital finance (31%) and all other materials and services (31%). Salaries/benefits reflect a wage adjustment of 2.5% (\$200,000) and increased pension costs (\$461,000; 30% higher). Health insurance costs are lower than the previous year due to increased employees' contributions. Capital financing costs are \$0.8 million higher due to debt service to finance water main renewals, the aeration system upgrade at Portland wastewater treatment plant and renovation of Fore River Pump Station in Portland. Total other expenses are increased \$0.3m, or 1.7%, from the prior year.

The significant changes in specific line-items include:

- Higher electricity costs due primarily due to Central Maine Power increased delivery and demand charges (\$205,000),
- Higher costs for treatment services assessed by South Portland and Falmouth to treat wastewater from Cape Elizabeth and Cumberland (\$105,000) and
- Lower heat, fuel and chemicals costs due to lower unit prices (\$223,000).

The capital budget includes \$10.8 million for water systems with \$7.0 million of that



targeted to replace aging water mains. Also, investment of \$2.0 million will be made to improve supply in the 407 Zone.

The \$6.7 million wastewater system capital budget includes \$2.5 million to continue updating the Fore River Pump Station in Portland and \$2.0 million for improvements to Dana Court in Westbrook.

Budget Highlights

NEW INITIATIVES	BUDGET SUMMARY	CHALLENGES AND ISSUES
<p>Investing \$7.0 million in water main renewal; including \$2.0 million through capital reserve fund.</p> <p>Public Relations programs continued - water bottle fountain grant program and 'value of water' campaign.</p> <p>Continue renovation of the East End Wastewater Treatment Plant's aeration system, with the \$12 million project completed by April 2017.</p>	<p>The Operating Budget is proposed to be \$42 million, an increase of \$1.5 million or 3.8%.</p> <p>Total Revenues are projected at \$42.3 million, which assumes a 1.67% water rate increase and wastewater assessments that meet the municipalities' expectations.</p> <p>The Capital Budget is proposed at \$18.7 million. It continues commitment to invest in water mains and wastewater facilities renovations.</p> <p>Full-time Positions remain at 178.</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>Higher regulatory standards demand a level of effort to monitor drinking water quality and treat additional volume of wastewater.</p> <p>Aging infrastructure requires asset replacement.</p> <p>Aging workforce</p> <p>Strong regional economic growth should in time improve revenue growth from new customers.</p>

Customer Impact

The proposed budget assumes a 1.67% rate adjustment effective May 1, 2017. The increase is consistent with the Board's intent to adopt small water rate adjustments annually. For a typical customer, the impact is \$3.84 a year or \$0.32 a month. Of the 1.67% rate adjustment, 0.67% will be used for general operation and 1% will be dedicated to fund a new 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. Assessments for Gorham and Westbrook remain the same as last year. Cape Elizabeth's, Cumberland's, Portland's and Windham's assessments increase by 1.8%, 12.6%, 4.7%, and 2.5%, respectively.

The 2017 budget guidelines established by the Board of Trustees are met in this budget proposal.

- Operating fund expenses are not increasing greater than inflation,
- Wastewater assessments meet the municipal expectations,
- Full-time positions do not exceed the target, and
- Investment in our infrastructure continues as planned.

Ronald Miller
General Manager

David M. Kane
Treasurer

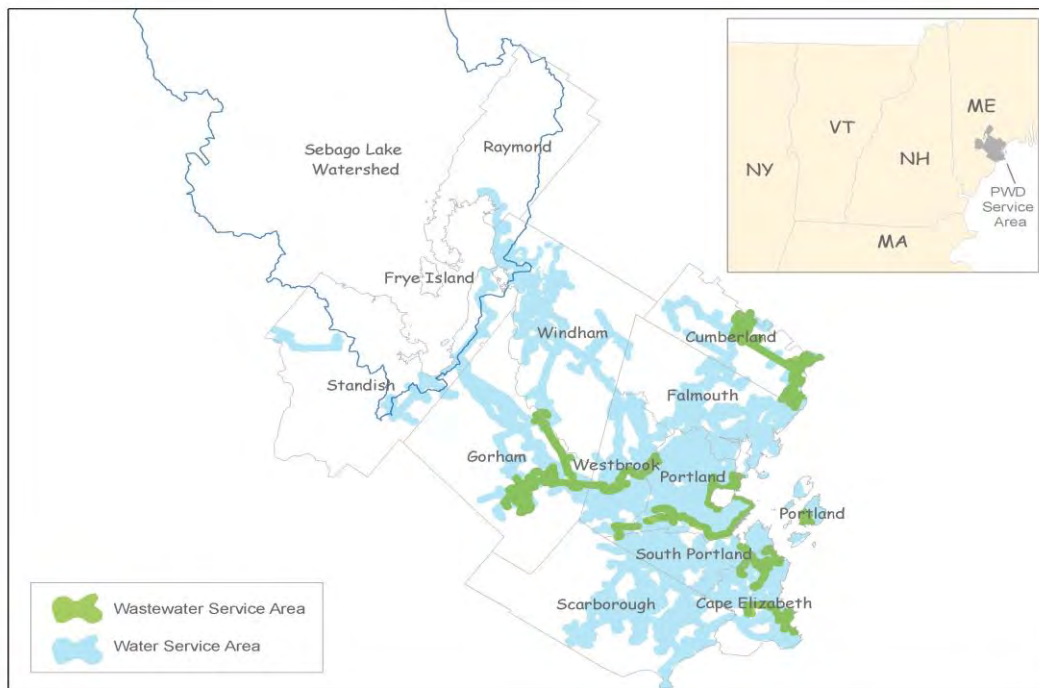
Introduction

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 52,309 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 5,000 fire hydrants and 2,000 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	By Charter:			By Contract:		
	Customers	Treatment	Interceptors	Collectors	Storm Drains	Billing
Cape Elizabeth	2,327	Yes	Yes	No	No	Yes
Cumberland	1,116	No	Yes	Yes	No	Yes
Falmouth	1,914	No	No	No	No	Yes
Gorham	1,783	Yes	Yes	Yes	No	Yes
Portland	17,036	Yes	Yes	Peaks Island (only)	Peaks Island (only)	Yes
Scarborough	405	No	No	No	No	Yes
South Portland	7,829	No	No	No	No	Yes
Westbrook	4,510	Yes	Yes	No	No	Yes
Windham	54	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. The 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 years being the aerations systems.

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 \$7.0 million investment in water main replacement is budgeted for 2017. Also, new regulation required a second water treatment process be installed in 2014.

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 230,000, 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 is a key expectation of our customers. Being a desirable place to visit during the summer contributes to variance in customer's water consumption by almost 40% between winter and summer months. With a relatively 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.™

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

In total, the City's port will host a 15% increase in passengers this year with 60+ cruise ship visits and more than 120,000 passengers between June and November.

Portland Metro Region one of the Best Restaurant Areas in the Country and has been called "a gastrotourism paradise" by the Boston Globe.

Online magazine ranks the Portland-Lewiston area eighth best restaurant city with the most eateries per capita. 1/25/2013

Portland Receives Top Marks from thrillist.com as the Best Small City to visit for a weekend. 5/6/2016

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, 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 the states the primary oversight and enforcement of the law (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 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 requirement 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 utilizing those stricter requirements.

In addition to the environmental regulations which govern the District's operations, the District's water business is also regulated by the state Public Utilities Commission and a system of Maine law found in title 35-A of the Maine Revised Statutes, designed to regulate the District's standards of service and water rates. Historically, the Public Utilities Commission regulates the District's water business operations through review and approval of the District's Terms and Conditions of Service, and establishes the rates the District charges for its water services. State law and regulations enacted by the Commission also regulate service standards for water utilities, as well as standards for construction, water main extensions and service lines. 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 has filed exemption requests from certain regulation, including the requirement of having the Commission approve water

The Regulatory Environment in Which We Function (continued)

rate adjustments, finance transactions and terms & conditions of service. Those items would be reviewed and approved by the District's locally elected public officials. The Commission approved the waiver request effective January 1, 2016.

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 of providing for the operation of 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.

Water Rate Change Process

In 2017, the District's Board of Trustees will consider a 1.67% rate adjustment. The chart on the next page outlines the process the District will follow in 2017. The District will continue the same Board and public review process but will 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 1.667% rate adjustment for the reserve.

Act to Reform Regulation of Consumer-Owned Water Utilities

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

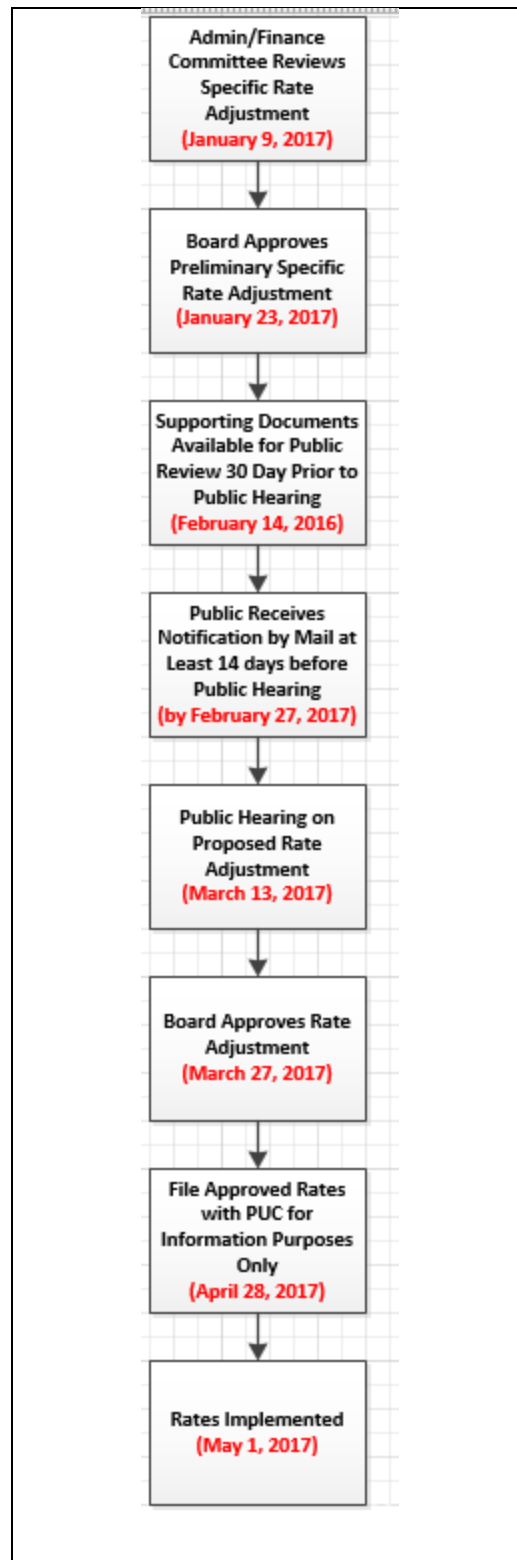
The District filed for exemptions from certain state regulations and the ability to implement local review and rules.

The changes include allowing water rate changes and bond issuance authorization 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.

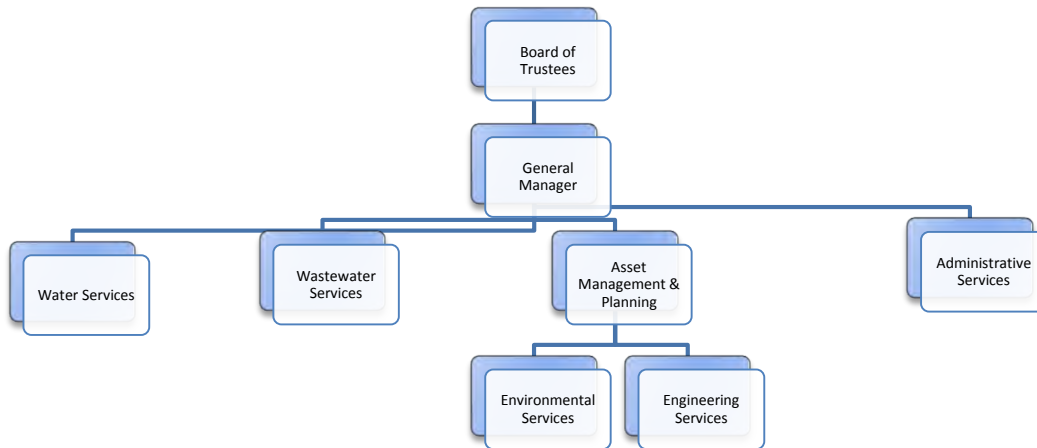
The Regulatory Environment in Which We Function (continued)

Rate Case Process

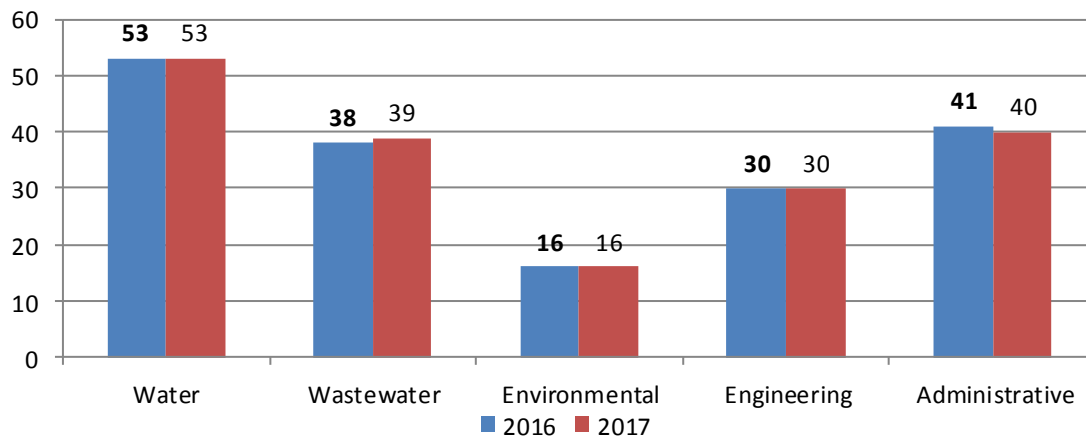


Organization Structure

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.



Authorized Number of Employees



- **Water Services** provides water treatment and distribution system operation and maintenance.
- **Wastewater Services** provides wastewater treatment and interception/collector system operation and maintenance services.
- **Environmental Services** provides watershed protection and laboratory services.
- **Engineering Services** provides general engineering, facilities and vehicles maintenance services.
- **Administrative Services** provides customer, computer, finance and general management services.

A more detail organization chart and description of services provided are provided in the Operating Expense section.

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. Broad 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. 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

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; and external factors impact impacting budget, major policy and resource allocation issues; significant budget uncertainties; and long-term and short-term goals.

24-27 Senior Managers host meetings with Department Managers to review budget parameters and process

June

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

July

11 Board review Staff's recommended guidelines and provides policy and high-level direction for the Budget.

15 Senior Management Team provides feedback on first draft submittal and Board feedback

22 Department Managers submit second draft Operating Budget and preliminary-level Capital & Non-capital projects and initiatives.

Aug

15-19 Department Managers present second draft Operating and Capital budget to the Senior Management Team.

Sep

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

Oct

24 Budget is presented to the Board of Trustees.

Nov

14 Department presents Operating Budget and Capital & Non-Capital projects and initiatives to their respective Board Committee. Full Board reviews the Five-Year Capital Improvement Plan.

21 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 24 and November 14. By January 15, 2017, the District notifies the municipality of the 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 explanation 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	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:

The District is working in partnership with the Cumberland County Soil and Water Conservation District and the Department of Environmental Protection to develop a watershed-based management plan to prioritize future conservation and erosion control work.

An allocation of \$2,000,000 in 2017 has been made for the 407 pressure zone upgrade, which will eventually include the replacement of Windham Center tank and the installation of a new pump station in the area of Ward's Hill to replace both Gorham and Prides Corner Pump Stations.

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 \$5.9 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 department identifying action steps to improve. Three local municipalities amended their current building code requiring all new construction have sprinklers systems. Other municipalities are considering amending their code.

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 (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 requirement 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.

	<u>2003</u>	<u>2008</u>	<u>2013</u>
<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 2017, 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.

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 and billing service. 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 last formal customer satisfaction survey was completed and indicates satisfaction continues to be high with 87% of customers indicating they are satisfied are 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. An updated survey is scheduled for 2017.

In 2017, several significant water system projects/programs that will increase reliability are the \$7.0 million investment in aging water mains, which will reduce main failures and the focus on addressing fire hydrants that are out-of-service. Significant wastewater system projects/programs that will increase reliability include the renovating aging pump stations and continue implementation of monitoring devices throughout the system that allows 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 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	\$ 228.12	\$ 210.72	\$ 221.64	\$ 254.16	
Inflation Adjusted		\$275.16	\$309.67	\$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 1.67% effective May 1, 2016. Since 1998, water rates are significantly 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, upgrading the disinfection facilities with ultraviolet protection, funding a new capital reserve fund and funding an adequate contingency fund.

Wastewater assessments remain the same between 2017 and 2016 for Gorham and Westbrook. Assessment increase in Portland (4.7%) is higher due to the capital financing costs related to upgrades at the Fore River pump station and East End Treatment Plant. Cumberland's assessment increase (12.6%) is slightly higher due to their request to upgrade the Mill Creek Pump Station for additional capacity as a result of economic growth. Cape Elizabeth's and Windham's increase of 1.8% and 2.5%, respectively, are close to the inflation rate.

Wastewater assessments have increased near or slightly above the rate of inflation (47%) 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 higher assessment from the town of Falmouth. The District's share of the assessment has increased 51%. To mitigate the upward pressure of 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 2015, an employee satisfaction survey was conducted. The average score remained almost the same as the 2013 results with a score of 4.46 on a scale of 1 to 6. The survey was conducted using a web-based survey tool that provides confidentiality with minimal cost. Based on the survey results, three areas that will be focused on in the upcoming year are: inconsistent application of policies, fairness of decisions regarding promotion, and value of the employee evaluation process. As surveys have traditionally been conducted every other year, another employee survey will be done in 2017.

The current workers' compensation modification factor indicates that our injury rate is below average for our industry (last 10 years' average is 1.02; 2016 factor decreased to 0.73).

Efforts continue to build a stronger foundation for our safety efforts. Performance appraisals starting in 2014 incorporated expanded expectations for our non-union staff. During 2016, we strengthen our incident investigation process to ensure improved data collection to aid job hazard prevention.

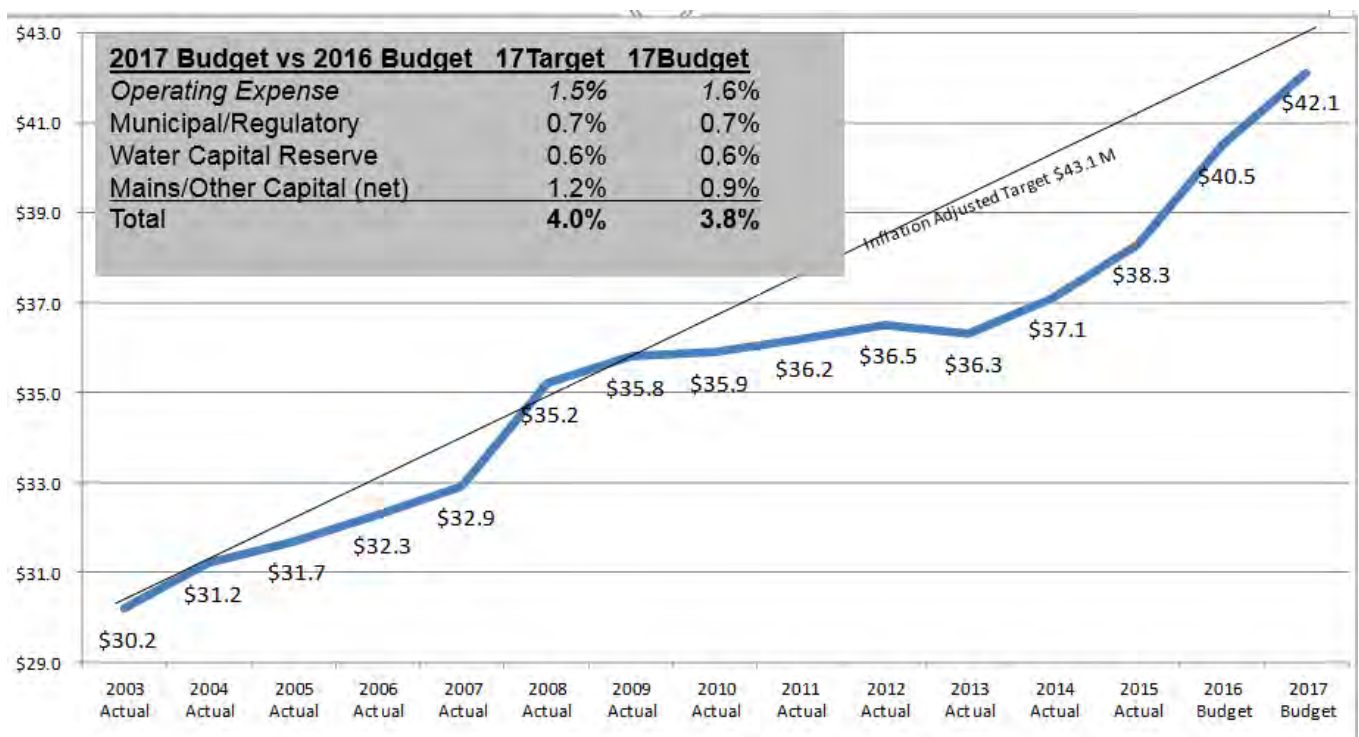
Management development and consistency of practice efforts continue through "Lunch and Learns." This effort impacts both our training and employee satisfaction goals.

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. Assuming a 1.5% inflation rate for operation expenses plus expected capital related expense, the 2017 operating budget target increase was established to not to exceed 4.0%. The resulting budget target of \$42.1M would be \$0.1M less than the budget if it increased at the rate of inflation.
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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 \$42.1 million, \$0.1 million better than Board guideline.**



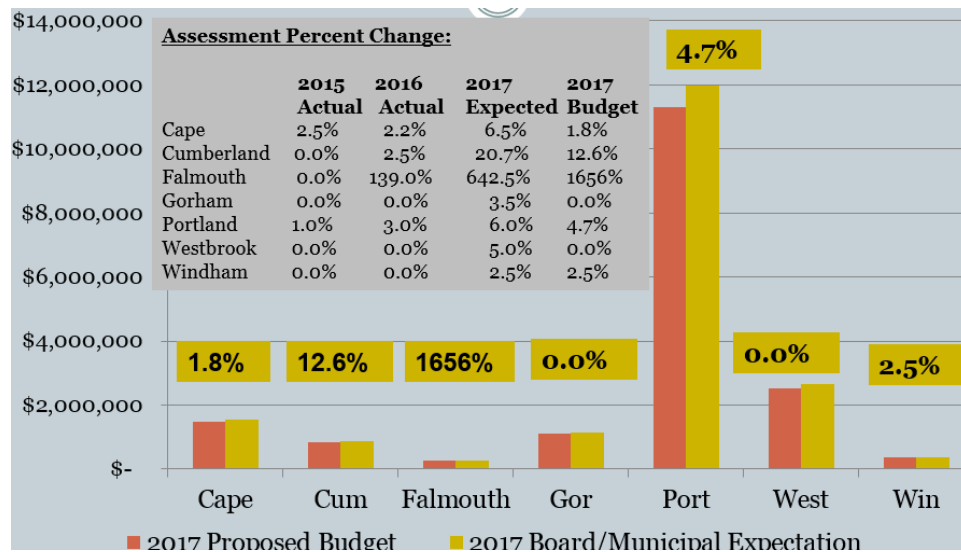
<u>Guideline</u>	Capital expenditures will be consistent with the levels recommended in the Water and Wastewater system plans.
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A guideline was established to assure capital projects are consistent with various plans including the Water Master Plan, 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)

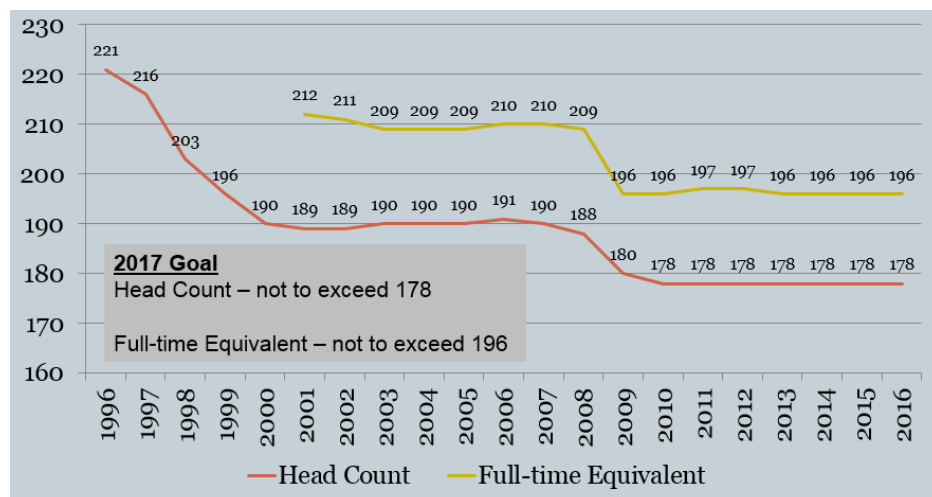
<u>Guideline</u>	Water Revenue Requirement and Wastewater Assessments increases will not exceed the rate of inflation excluding the impact of mutually agreed upon changes in services, capital investments, surplus fund utilization or Board's request to increase surplus balance.
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All Wastewater assessments and Water Rates Increases meet or are below the Board of Trustees and Municipal targets. Cumberland's, Falmouth's and Portland's Assessment are higher than inflation due to higher costs related to requested or approved capital projects.



<u>Guideline</u>	The number of employees will not exceed 178 and the - time equivalency (FTE) will not exceed 196.
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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 178 employees and 194 full-time equivalent employees – meeting the Goal.**



External Factors Impacting the Budget

Economy

The local economy continues to improve from the national recession. State unemployment has returned to pre-recession levels at 4.0%, which is better than the prior year's rate of 4.4% (as of August 2016). The unemployment rate is better than the national unemployment rate of 4.9%. Cumberland County's unemployment rate is 2.7%, which is 0.1% better than last year.

Greater Portland's real estate market is thriving and has been the hottest market in the country for the first half of 2016. In 2016, the number of sales grew by over 12% month on month and the median price has broken the \$350,000 threshold. In the 2017 budget, the water consumption projection includes the same number of households as of May 31, 2016 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 lower than historical levels impacting interest earning on investments and interest expense on debt. However, both investment and bond rates have risen in the past year. The 2017 budget includes an \$108,000, or 100%, increase in earnings from operating funds investments as the average rates increase to 0.73% from 0.43%.

The poor equity market returns in 2015, combined with union negotiated increase in benefit and change to a more recent mortality table, continues to cause the annual pension costs to increase. The 2016 estimated actuarially determined contribution to our pension plans are almost \$1,600,000, which is \$400,000 or 33% higher than the prior year.

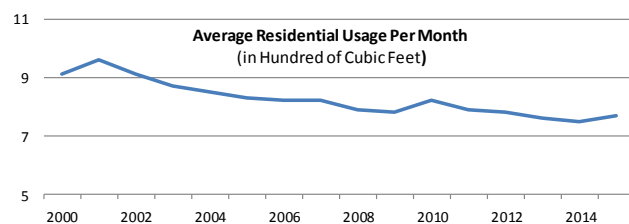
The chemical, metal and fuel commodity market prices are impacted by the economy's health and have been volatile in the past couple of years. With slower global economic growth, the lower demand for chemicals has resulted in lower per unit prices for chemicals purchased by the District. Approximately 10% of the District's expenses are related to chemical, metal and fuel markets. The 2017 budget reflects the commodity prices available in mid-2016.

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 2017 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 15%. 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 (\$10.62 million or 25.3% of total budget). The latest three-year union contract expires at the end of October 2018. For 2017 budget purposes, union wage rates were assumed to increase by 2.5% effective November 1, 2016. Non-union pay rates were assumed to increase by 2.5% effective January 1, 2017.

In addition, the budget assumes 14,216 hours of overtime and double time pay. The amount of overtime and double time is directly related to amount of emergency repair work that is needed. For every additional 1,000 hours of overtime/double time pay, costs increase by approximately \$36,750.

Purchased Power (\$1.99 million or 4.7% of total budget). Electricity costs consist of delivery charges purchased from Central Maine Power (\$844,552) and energy costs purchased from Constellation Energy (\$1,147,099). Typically, CMP implements a rate adjustment effective July 1st. The amount of the 2017 increase is unknown. The 2017 budget assumes a 4% 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, except for 13% of the three large accounts (Water Treatment and East End Wastewater Treatment/India Street pump station). The unlocked portion will pay the prevailing market rate. The budget assumed a market rate of \$.03/kwh, which is roughly equal to the current rate as of October 2016.

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 (\$0.99 million or 2.4% of total budget). The chemical contract is put out to bid each December. Prices used for the budget were estimates using the June market prices. Chemical prices have been volatile and have reacted to the global/national economy.

Heat & Vehicle Fuels (\$0.50 million or 1.2% of total budget). The prices assumed for heating oil and vehicle fuel in the budget are the actual rates through September 2017. The price for natural gas, most of which is used for heat at the East End WWTF, is budgeted for \$83,340 in budget. However, the unit price is still under negotiation as of the publication of this budget. Also, the quantities budgeted are based on past historical usage and may vary.

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 2017 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

Operating Expense Budget As noted above, the Board established an operating expense budget cap of 1.5% greater than the 2016 budget and authorized head count to be no more than the current level of 178. With essentially the same level of resources, the major decisions related on how best to provide current level of service with the existing resources.

Personnel Continued focus on keeping the amount of premium (i.e. overtime, double time, etc.) compensation low was made while planning for 2017. Since 2012, premium pay has decreased over 5% to \$522,297 without reducing service levels.

In 2017, Water and Wastewater Services continue to make staff changes that are consistent with the goal of creating positions whose job responsibilities are more broadly defined. This long-term goal creates a more versatile, responsive work force, and requires improved information sharing systems and processes. The 2017 budget includes 13 entry level positions (ten in Water and four in Wastewater) that begin their career by rotating through different areas of the company. Also, six seasonal positions included in the budget to promote the District and industry to young students.

Overall, the 2017 budget continues our emphasis on training employees with the continued goal of providing an average of 80 hours training.

Employee Benefits The costliest employee benefits are health insurance and pension benefits. In 2017, the employees' health insurance co-pay percent was increased to 7.0% from 6.0%. That change, along with an average rate decrease of 1.0% resulted in a budget reduction savings of \$93,219. The defined benefit plan contributions in the 2017 Budget increased \$391,514 (32.9%) to \$1,518,014. The contribution is consistent with Board adopted long-term funding policy and estimated by the District's actuary. The actual actuarially determined contribution will be calculated by early 2017. The plan is solely funded by the District without any employee contribution.

Wastewater Sewer Lines Inspection In 2008, a commitment was made to inspect all sewer lines at least once every 10 years. Almost \$65,000 was allocated in 2017 to meet that commitment.

Water System Flushing Starting in 2012, a renewed effort was made to flush the whole distribution over a 3-year cycle. Flushing the system improves the water quality in the distribution system. The 2017 budget continues this effort by allocating close to \$100,000.

Partnership for Safe Water. Starting in 2016, staff allocates approximately 1,000 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 project remained the same except for \$100,000 increase in the Water fund for general assets, and decreases in the wastewater funds of Gorham (\$29,613), Portland (\$5,000), Westbrook (\$30,252) and Windham (\$12,687).

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 2017, the amount dedicated to replace aging water mains will be \$7.0 million. 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 \$7,000,000 investment in 2017.
- **Portland Wastewater pump station upgrade:** The Fore River pump station will be upgraded after over 30 years of service (\$2,550,000). This project was started in 2015 and entails several phases (phases 3-5 will be constructed in 2017).
- **Portland and Westbrook Regional Wastewater Treatment Plant:** Construction on the Portland Aeration system began in 2015 and is scheduled to be completed in 2017 (\$12,000,000). Additionally, a sludge dewatering project is scheduled for the Westbrook plant in 2016 (\$1,000,000) as well as additional CSO work (\$2,200,000).
- **Windham/Gorham 407 Zone upgrade:** The 2003 water master plan noted that, within the next 20 years, customer's water demand growth in Windham and Gorham will exceed current capacity. Since 2003, incremental improvements have been made to address the future shortfall. Preliminary engineering of the next phase was completed in 2014 with construction scheduled for 2016 (\$2,000,000). This is an ongoing project with multiple phases going into 2021.

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 2017 budget assumes a 1.67% increase in rates.

The 1.67% 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 3%. 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.

Operating Budget Summary

The proposed budget includes \$42.26 million in revenues and \$42.03 million expenses.

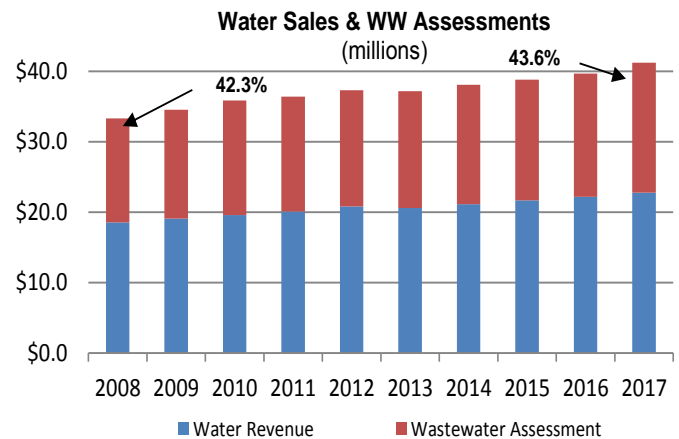
Revenues

The two major revenue sources are water sales (\$22.80 million or 54.0% of total revenue) and wastewater assessment revenues (\$18.42 million or 43.6% of total revenue). Wastewater revenues have increased from \$14.78 million, or 42.3% of total revenue, since 2008 principally due to addressing capital needs requested by municipalities or aging plant.

Water revenues are generated from potable water and sprinkler charges to individual customers, and public fire protection charges to municipalities. The 2017 Budget assumes an increase of 1.67% over current rates on May 1, 2017.

Wastewater assessments are the amounts billed individual municipalities to provide

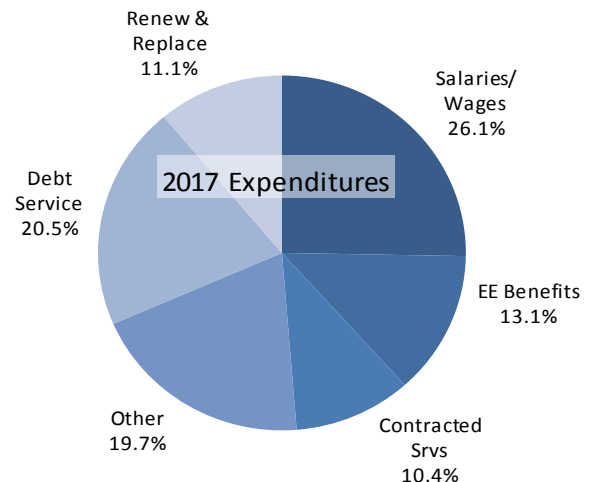
collection, sewer treatment, interception, utility billing services and, by request, collection and billing services. Assessments in 2017 increased 5.2% overall (\$910,392).



Expenses

Departmental Expenses increased to \$42.03 million, an increase of 3.8%.

Personnel Costs, (Salaries/Wages and employee Benefits) which are 39.2% of the total budget, increased 2.9% due to labor/benefit rate increases (2.5% & 0.7%). Debt Service (20.5% of expense) increased 10.8% due to new debt issues. Contracted Services rose 4.5% (\$185,985), Renewal and Replace contributions increased \$22,448 (0.5%) while Other Expense increased \$30,662 (0.4%).



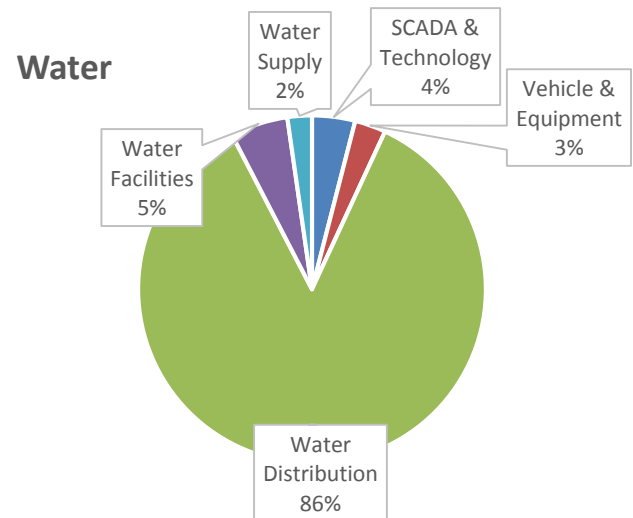
Capital Budget Summary

The proposed Capital Budget is \$18.7 million with projects for the water and wastewater funds of \$12.1 million and \$6.5 million, respectively.

Water

Of the \$12.1 million in water capital projects, the largest component (86%) involves the renewal of water distribution assets such as mains, services, meters and hydrants. The other categories include the water facilities & security (5%), vehicles & equipment (3%), technology & SCADA (4%) and water supply (2%).

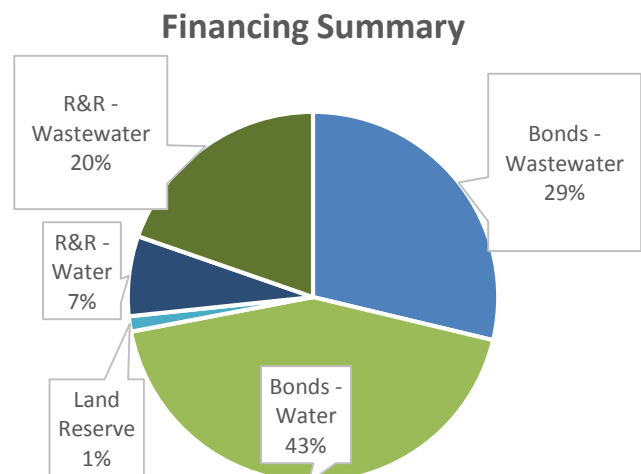
The projects will be funded by issuing \$9.13 million in bonds and utilizing \$3.7 million in renewal and replacement proceeds.



Wastewater

The largest project included in the \$6.5 million wastewater capital plan is the \$2.5 million upgrade at Fore River Pump station and a \$2.2 million for the CSO work in Westbrook. Additionally, work will be completed at the East End Wastewater treatment facility, however, this is a prior year project.

The projects will be funded by issuing \$5.4 million in bonds and by utilizing \$1.3 million in renewal & replacement fund proceeds.



Combined Water and Wastewater Operating Funds

Total revenues are \$42.26 million, \$1.71 million or 4.2% higher than last year's budget. The 2017 Budget proposes a 1.67% water rate increase effective May 2017. Wastewater Assessments increases for the full year are budgeted in Cape Elizabeth (1.8%), Cumberland (12.6%), Falmouth (1,656.0%), Portland (4.7%) and Windham (2.5%).

Operating Expenses are \$42.03 million, an increase of 3.8%. The following pages provide additional detail.

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Beginning Fund Balance	\$9,990,457	\$10,496,436	\$11,148,346	\$12,444,650		
Water Sales	21,788,861	10,560,238	22,213,173	22,800,978	587,805	2.6%
Assessment Income	17,131,296	8,754,156	17,508,312	18,418,704	910,392	5.2%
Contracted Billing Income	203,004	101,604	203,208	203,364	156	0.1%
Interest Income	119,489	112,034	108,257	216,744	108,487	100.2%
Other Income	668,274	260,634	515,970	616,800	100,830	19.5%
Total Revenue	39,910,924	19,788,666	40,548,920	42,256,590	1,707,670	4.2%
Salaries & Wages	9,832,292	5,015,047	10,361,351	10,625,197	263,846	2.5%
Employee Benefits	4,753,439	2,563,120	5,308,818	5,492,790	183,972	3.5%
Biosolids Disposal	1,518,633	777,998	1,390,252	1,451,816	61,564	4.4%
Chemicals	991,815	535,782	1,100,862	989,330	(111,532)	-10.1%
Contracted Services	4,082,075	1,706,109	4,171,063	4,357,048	185,985	4.5%
Deferred Cost W/O	29,488	11,705	24,486	14,400	(10,086)	-41.2%
Heat/Fuel Oil	460,269	228,570	448,844	342,764	(106,080)	-23.6%
Insurance	192,052	104,917	200,164	201,206	1,042	0.5%
Materials & Supplies	1,604,074	866,233	1,602,150	1,634,986	32,836	2.0%
Other Expense	920,918	363,663	748,253	707,256	(40,997)	-5.5%
Purchased Power	1,750,433	836,299	1,786,094	1,991,651	205,557	11.5%
Regulatory/Taxes	202,669	180,995	214,896	218,015	3,119	1.5%
Tele/Other Utilities	331,570	167,981	350,638	348,282	(2,356)	-0.7%
Transportation	1,157,075	564,919	1,215,348	1,210,427	(4,921)	-0.4%
(less) Transportation	(760,287)	(378,970)	(816,925)	(814,406)	2,519	-0.3%
Department Expense	27,066,515	13,544,368	28,106,294	28,770,762	664,468	2.4%
Debt Service	6,762,620	3,808,303	7,756,603	8,595,909	839,306	10.8%
Renewal & Replacement - Direct	3,996,362	2,024,517	4,049,034	4,071,482	22,448	0.6%
Renewal & Replace - Indirect	490,000	295,003	590,000	590,000	-	0.0%
Operating Expense	38,315,497	19,672,191	40,501,931	42,028,153	1,526,222	3.8%
Current Year Surplus (Deficit)	1,595,427	116,475	46,989	228,437		
Return of WW Accumulated Surplus	(42,000)	-	-	-		
Transfer to R&R	(918,488)	-	-	-		
Transfer to Capital Reserve	(69,434)	(8,104)	(16,208)	(48,594)		
Transfer to Land Fund	(335,000)	-	-	-		
Land Cash Reserve Expense	275,474	-	-	-		
Ending Fund Balance	10,496,436	10,604,807	11,179,127	12,624,493		
Operating Expense (above)	38,315,497	19,672,191	40,501,931	42,028,153		
Capital Expenditures	12,805,334	10,519,208	14,595,000	18,720,500		
Total Expenditures	51,120,831	30,191,399	55,096,931	60,748,653		

Combined Operating, Capital and Grant Funds

The total combined revenue and funding for 2017 is \$60.98 million, total combined expenditures are \$60.75 million. The budgeted surplus for 2017 is \$228,437.

Operating funds details are included in Operating Revenues, Departmental Expense and Human Resources Sections. Capital funds details are included in included in 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 6 wastewater funds for each community provided with wastewater service.

	Operating	Capital	Total
Water Revenue	\$22,800,978	\$0	\$22,800,978
WW Assessments	18,418,704	-	18,418,704
Water Bond	-	8,100,000	8,100,000
Water R&R	-	3,683,500	3,683,500
WW Bond (Future)	-	-	-
WW Bond	-	5,380,000	5,380,000
WW R&R	-	1,307,000	1,307,000
Land Reserve	-	250,000	250,000
Deferred Operating Expense	-	-	-
Contracted Billing Income	203,364	-	203,364
Interest Income	216,744	-	216,744
Other Income	616,800	-	616,800
Total Revenue	42,256,590	18,720,500	60,977,090
Salaries & Wages	10,625,197	41,467	10,666,664
Employee Benefits	5,492,790	18,906	5,511,696
Biosolids Disposal	1,451,816	-	1,451,816
Chemicals	989,330	-	989,330
Contracted Services	4,357,048	18,025,846	22,382,894
Deferred Cost W/O	14,400	-	14,400
Heat/Fuel Oil	342,764	-	342,764
Insurance	201,206	-	201,206
Materials & Supplies	1,634,986	555,836	2,190,822
Other Expense	707,256	-	707,256
Purchased Power	1,991,651	-	1,991,651
Regulatory/Taxes	218,015	-	218,015
Tele/Other Utilities	348,282	-	348,282
Transportation	1,210,427	78,445	1,288,872
Trans Offset	(814,406)	-	(814,406)
Operating Expense	28,770,762	18,720,500	47,491,262
Debt Service	8,595,909	-	8,595,909
Renewal & Replacement - Direct	4,071,482	-	4,071,482
Renewal & Replace - Indirect	590,000	-	590,000
Total Expense	42,028,153	18,720,500	60,748,653
Surplus (Deficit)	228,437	-	228,437

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, 2016. 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.



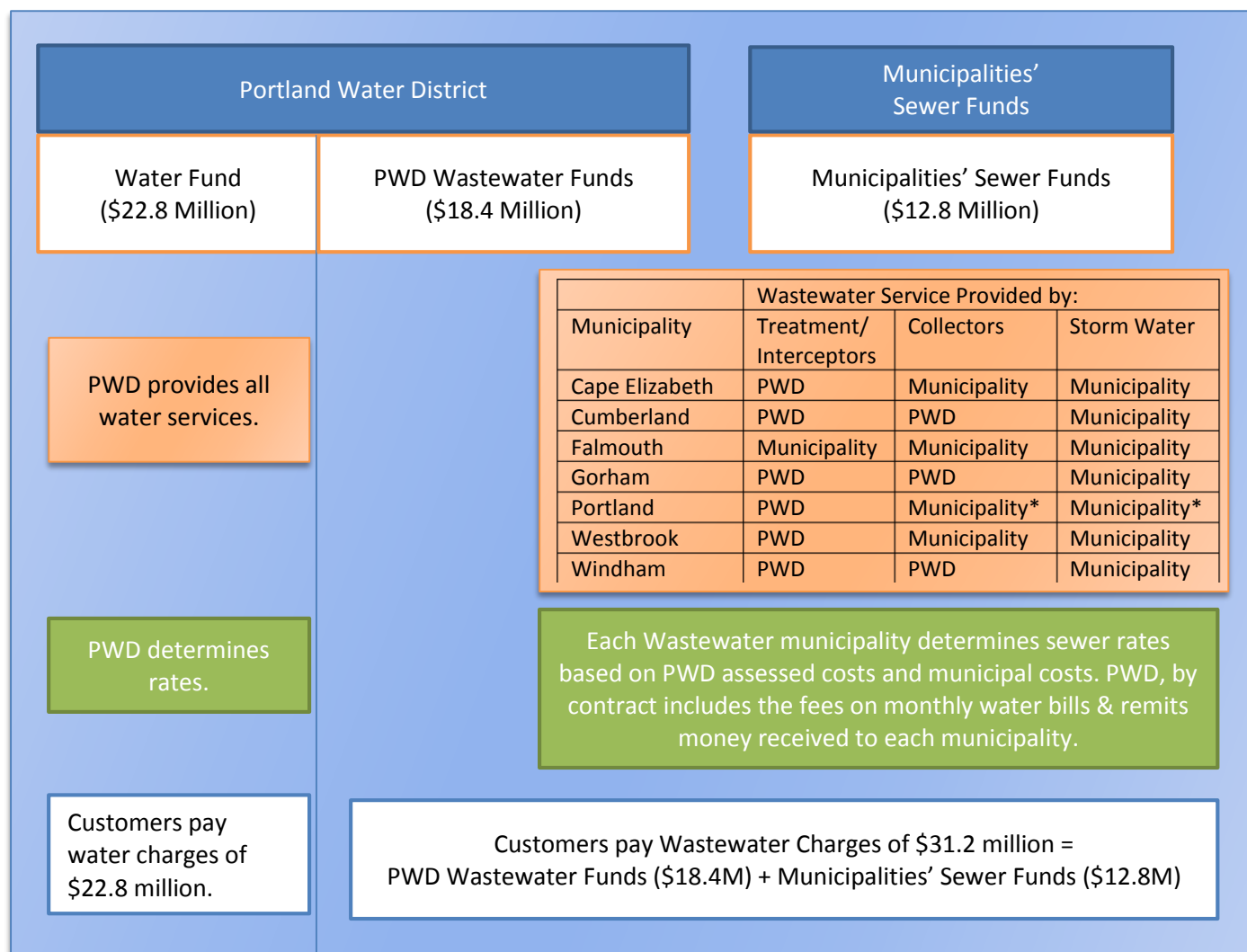
Introduction

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 cities of Portland, 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 service 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 billed mailed to the Ratepayers.



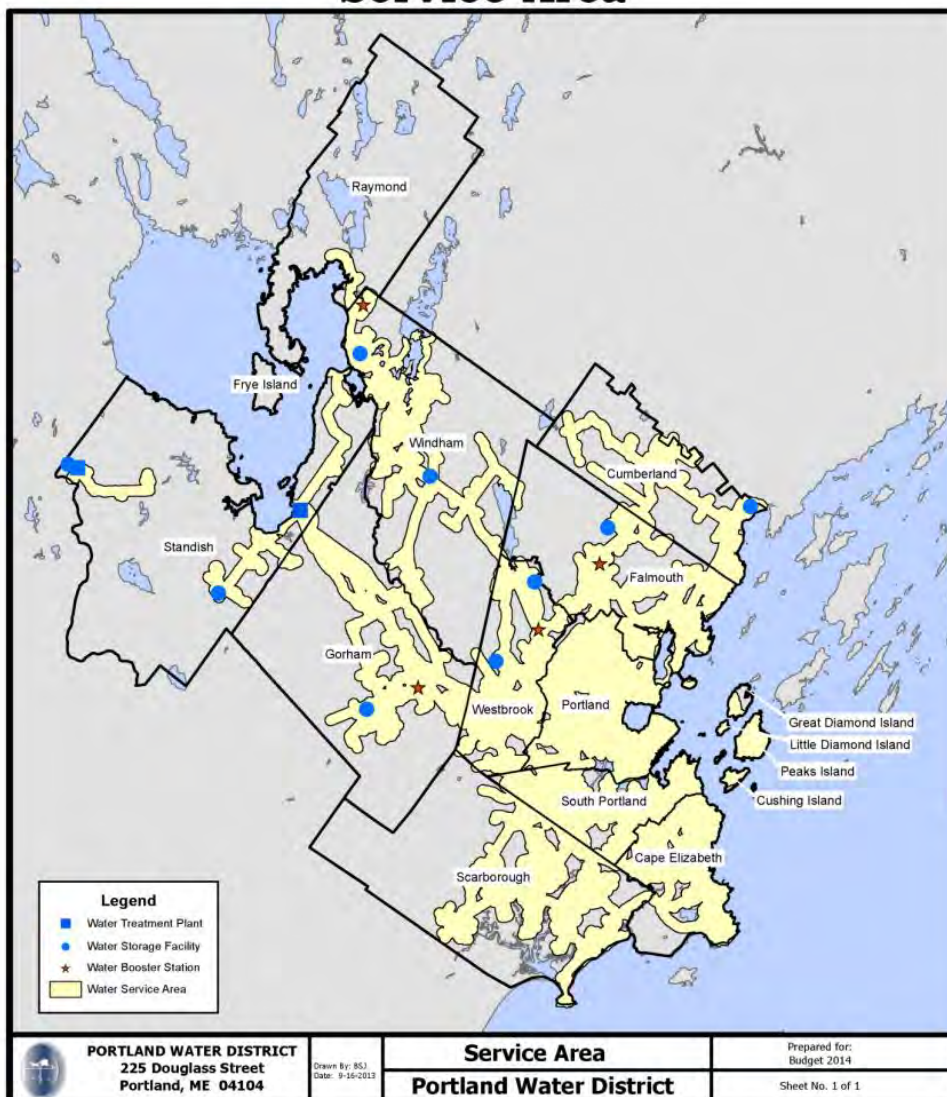
*By contract, the District maintains collectors and storm drain system on Peaks Island, a small part of Portland

Fund: Water

Background

The Portland Water District's charter authorizes the District to provide service to the inhabitants of 11 cities and towns. Approximately 200,000 inhabitants are served portable drinking water. In addition, water for public and private fire protection is provided. The District's water operation is regulated by the Department of Health and Human Services for water quality and 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

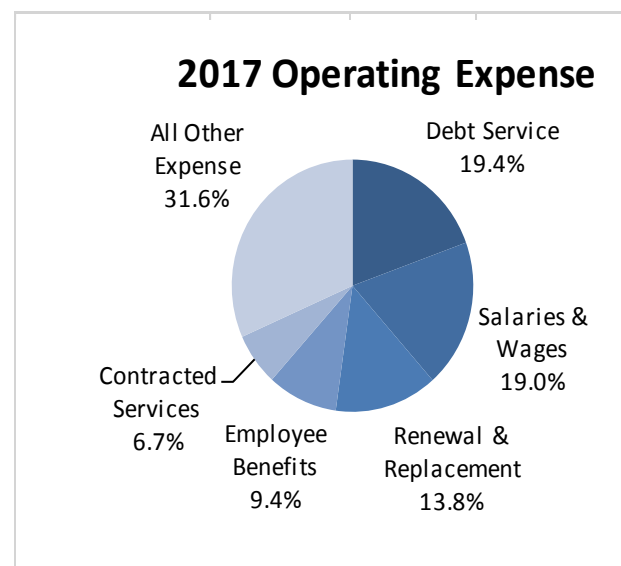
The Portland Water District operates two water systems; the Greater Portland System delivers 22 million gallons of water per day from Sebago Lake and the Steep Falls System which delivers 30,000 gallons per day from a single well in Standish. The quality of the water from Sebago Lake is exemplary, and 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.

2017 Financial Summary

The proposed 2017 Operating expense and Capital budgets are \$23,004,243 and \$11,783,500, respectively.

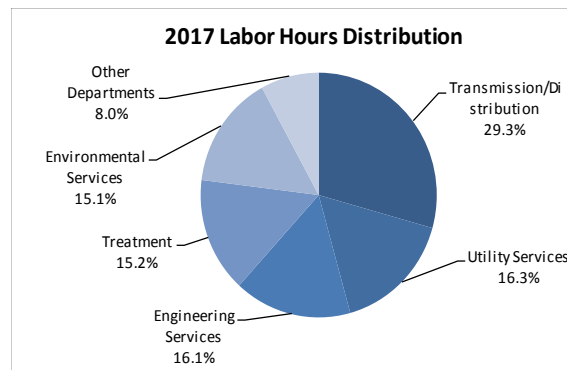
Operating Expense was \$620,485, or 2.8%, higher than the previous year. Departmental Expense was up 2.1% (\$309,362) and Renewal & Replacement (direct & indirect) was up \$101,333. Debt Service increased \$209,790 (4.9%) due to newly issued debt.

The Capital budget includes \$7 million for distribution main renewals. Additionally, \$4.8 million in capital work involving the District's other assets will be funded from a mix of bonds and the renewal and replacement fund.



2017 Operating Expense Highlights

Salaries/Wages – Wages rates increased an average of 2.5%. Regular wages increased (4.0%) but were offset by a decrease in overtime, standby and temp costs. The result was an overall increase of \$112,144 (2.6%).



Employee Benefits – Benefits, which are charged as a percentage of regular wages, increased 4.4%. The benefit rate increased 0.7% due to increases in pension costs.

Chemicals – Costs are budgeted to increase \$619 (0.2%). Chemical usage is based on historical usage and pricing based on current prices and predicted market trends.

Facilities – The cost of facilities utilized by the Water Fund increased 9.3% (\$10,651) due to higher costs for power (energy rates up 14%), maintenance and facility materials.

Heat/Fuel Oil – This expense decreased 29.9% (\$43,374) due to a drop in the per gallon cost of heating oil.

Other Expense – Other Expense decreased \$15,145 (11.5%) as the result of several small reductions including a \$6.6k reduction in Watershed Grants.

Purchased Power – The decrease in large energy for the treatment plant somewhat offset large increases in medium energy and large/medium delivery. Overall the budget was up \$23,807 or 5.9%.

Tele/Other Utilities – This expense is up \$12,778 (16.6%) due higher monthly costs associated with a new fiber data connection installed during 2016. This connection will greatly improve the data flow between the water treatment plant and the Douglass Street offices.

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 increased \$105,997 or 2.5%. Water Services declined due to reductions in large meter testing costs while Environmental Services increased due to an increase in laboratory testing for water due to a shift in budgeting to match prior year work efforts.

Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This expense will increase 4.9% (\$209,790) in 2017 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 \$101,333 to support continued capital work including the renewal of older water mains.

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Water Sales	21,788,861	10,560,238	22,213,173	22,800,978	\$587,805	2.6%
Interest Income	55,926	55,970	56,031	113,072	57,041	101.8%
<u>Other Income</u>	<u>368,825</u>	<u>187,244</u>	<u>265,370</u>	<u>317,900</u>	<u>52,530</u>	<u>19.8%</u>
Total Revenue	22,213,612	10,803,452	22,534,574	23,231,950	697,376	3.1%
Salaries & Wages	4,183,401	2,121,999	4,262,653	4,374,797	112,144	2.6%
Employee Benefits	1,915,833	1,043,646	2,073,725	2,164,003	90,278	4.4%
Chemicals	362,004	173,644	394,970	395,589	619	0.2%
Contracted Services	1,665,484	511,447	1,564,472	1,547,511	-16,961	-1.1%
Deferred Cost W/O	800	0	0	0	0	n/a
Facilities	98,443	55,317	114,107	124,758	10,651	9.3%
Heat/Fuel Oil	143,564	76,624	145,136	101,762	-43,374	-29.9%
Insurance	33,954	14,365	29,696	28,710	-986	-3.3%
Materials & Supplies	645,064	379,608	588,884	630,905	42,021	7.1%
Other Expense	424,839	99,142	131,225	116,080	-15,145	-11.5%
Purchased Power	449,835	158,773	402,186	425,993	23,807	5.9%
Regulatory/Taxes	202,669	180,995	214,896	218,015	3,119	1.5%
Tele/Other Utilities	73,668	34,866	76,905	89,683	12,778	16.6%
Transportation	772,260	364,560	813,913	798,330	-15,583	-1.9%
SS - Administration	3,081,581	1,630,562	3,276,686	3,379,833	103,147	3.1%
SS - Engineering Services	699,376	349,286	764,954	765,946	992	0.1%
SS - Environmental Services	94,370	37,313	71,813	80,417	8,604	12.0%
<u>SS - Water Services</u>	<u>72,019</u>	<u>47,784</u>	<u>129,755</u>	<u>123,006</u>	<u>-6,749</u>	<u>-5.2%</u>
Operating Expense	14,919,164	7,279,931	15,055,976	15,365,338	309,362	2.1%
Debt Service	3,590,559	2,108,952	4,264,479	4,474,269	209,790	4.9%
Renewal & Replace - Direct	2,600,000	1,350,000	2,700,000	2,800,000	100,000	3.7%
<u>Renewal & Replace - Indirect</u>	<u>297,863</u>	<u>181,652</u>	<u>363,303</u>	<u>364,636</u>	<u>1,333</u>	<u>0.4%</u>
Total Expense	21,407,586	10,920,535	22,383,758	23,004,243	620,485	2.8%
Current Year Surplus (Deficit)	806,026	-117,083	150,816	227,707		
Transfer to Capital Reserve	-69,434	-8,104	-16,208	-48,594		
Transfer to Land Reserve	-335,000	0	0	0		
Land Cash Reserve Expense	275,474	0	0	0		
<u>Prior Year Surplus</u>	<u>3,931,874</u>	<u>4,608,940</u>	<u>4,684,543</u>	<u>6,008,944</u>		
Accumulated Surplus	4,608,940	4,483,753	4,819,151	6,188,057		

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 the customer's homes. During the past few years, more efforts are being focused on the renewal of the older water mains in our system. In 2017, 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.

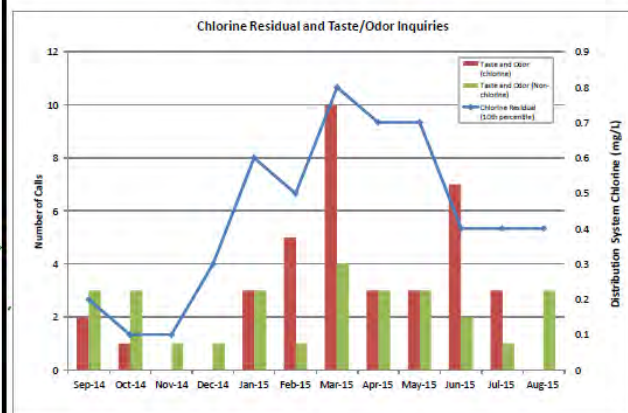
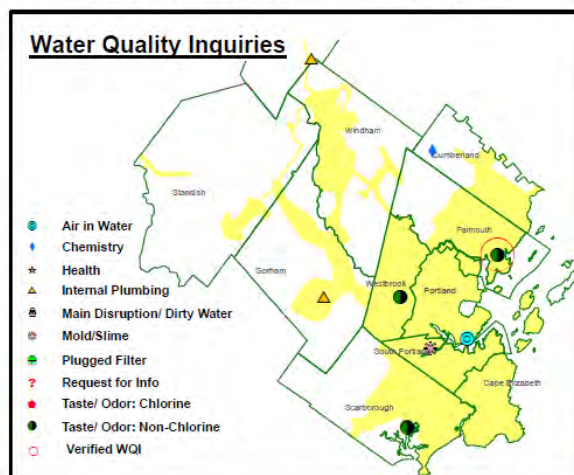
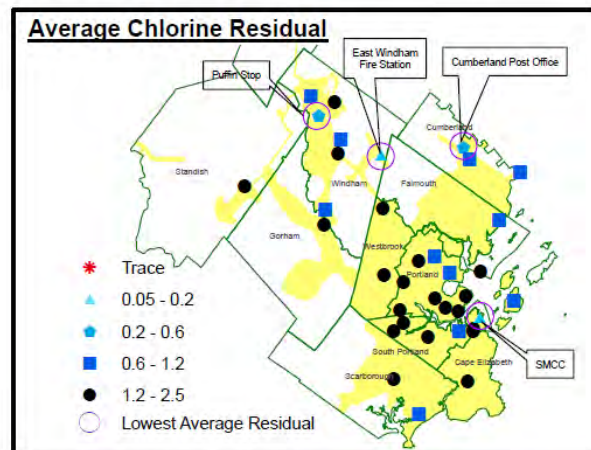
August 2015 Distribution System Water Quality Summary

Page 1 of 1

August Greater Portland:			
0 of 166 coliform samples were positive (0.00%, Limit = 5%)			
2015 Totals:			
0 of 1203 coliform samples were positive (0.00%)			
Distribution System Water Quality Data			
Parameter	August	Year to Date	Goal
Cl ₂ Residual			
10th Percentile	0.40 ppm	0.60 ppm	≥ 0.40 ppm
Mean	1.36 ppm	1.41 ppm	
pH Value			
10th Percentile	7.00	7.10	≥ 7.20
Median	7.50	7.50	

Lowest Average Chlorine Residual

SMCC Gym	0.15 mg/L
East Windham Fire Station	0.20 mg/L
Puffin Stop	0.43 mg/L
Cumberland Post Office	0.44 mg/L



Operation Summary (continued)

In an effort to improve system operation and prioritize activities, the District joined the Partnership for Safe Water. 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 is not eligible to join the Treatment Plant Optimization Program, because the District has a waiver from filtration. However, in 2016 the District joined the Partnership's Distribution System Optimization Program and began reporting distribution system data. 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 has been to help utilities to evaluate their own distribution system performance against regulatory requirements and industry Best Management practices. In areas where improvement is desired, the 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, customers complaints, Cross Connection Control Program, main renewal programs, staffing, and funding.

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.

Capital project expenditures are financed by issuance of bonds or renewal and replacement funds collected. The 2017 planned projects are listed below. A detailed description of the projects is listed in the capital improvement plan section of the budget book. In 2017, the district plans to issue \$8.1 million in bonds and fund renewal and replacement at \$3.6 million to fund the remaining capital projects.

2017 Projects:

	2015 Actual	2016 Projected	2017 Budget
Beginning of Year Fund Balance	\$3,784,541	\$5,103,305	\$6,618,305
Funding Sources:			
Bond Proceeds - Main Renewal	5,500,000	4,290,000	7,313,600
Bond Proceeds - 407 Zone	-	1,830,000	2,000,000
Bond Proceeds - Ozone Plant	500,000	-	-
Renewal & Replacement Contribution	<u>3,470,000</u>	<u>3,670,000</u>	<u>3,770,000</u>
	13,254,541	14,893,305	19,701,905
Expenditures:			
Scada & Technology	73,688	250,000	425,000
Vehicle/Equipment Replacement	272,038	400,000	350,000
Water Operations - General	1,375,653	860,000	250,000
Water Operations - Meters	237,865	250,000	263,500
Water Operations - Hydrants	449,815	200,000	200,000
Main Renewal Projects	4,997,594	3,640,000	7,870,000
Ozone Plant/UV Project	500,000	-	-
407 Zone Work		2,255,000	2,000,000
Water Facilities	192,054	395,000	400,000
Water Supply Security	<u>52,528</u>	<u>25,000</u>	<u>25,000</u>
	8,151,235	8,275,000	11,783,500
End of Year Fund Balance	5,103,305	6,618,305	7,918,405

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:

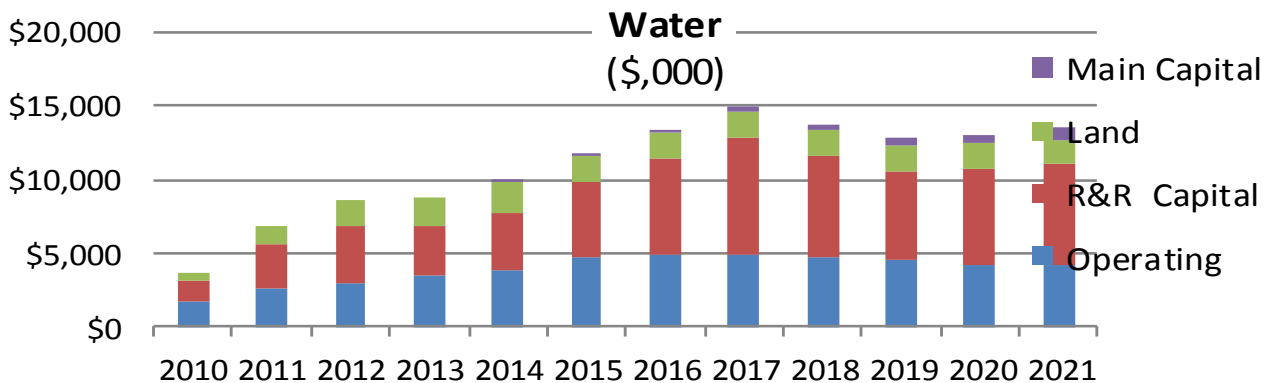
The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5 % per year and pension contribution increase 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new debt assumed a 20-year life at 5%; except for \$2M debt to fund the capital reserve which issued for 10 years). Significant projects include main renewal projects, 407 zone system upgrades, work order/customer service billing computer system, replacement of treatment plant intake screens.

Summary

Water Revenue is projected to increase to \$27,714,731 by 2021 with the most significant cost change related to debt service issued to finance capital projects. Operating Reserve balance is expected to be below target balance. Renewal and Replacement fund and debt ratio are expected to meet target.

Reserve Fund Balances



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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Water	17%	17%	20%	22%	25%	26%	26%	26%

(American Water Works Industry Benchmark – Median Quartile, 2012: 34%)

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Water	1.84	1.93	1.68	1.69	1.48	1.40	1.37	1.38

Projections for Rate-Making Purposes (continued)

Water Fund

Operating Fund:

	2017	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected	Projected
Water Revenue	\$22,800,978	\$23,941,027	\$25,138,078	\$26,394,982	\$27,714,731
Other Income	317,900	317,900	317,900	317,900	317,900
Interest Income	113,072	113,072	113,072	113,072	113,072
Total Revenue	23,231,950	24,371,999	25,569,050	26,825,954	28,145,703
Expense:					
Salaries/Wages	4,374,797	4,484,167	4,618,692	4,757,253	4,899,971
Employee Benefits	2,164,003	2,228,923	2,295,791	2,364,665	2,435,605
Contracted Svcs	1,547,511	1,586,199	1,641,716	1,699,176	1,758,647
Transportation	798,330	818,288	846,928	876,570	907,250
Materials/Supplies	630,905	646,678	669,312	692,738	716,984
Purchased Power	425,993	436,643	451,926	467,743	484,114
Chemicals	395,589	405,479	419,671	434,359	449,562
Regulatory/Taxes	218,015	223,465	231,286	239,381	247,759
Heat/Fuel Oil	101,762	104,306	107,957	111,735	115,646
Facilities	124,758	127,877	132,353	136,985	141,779
Other Expense	116,080	118,982	123,146	127,456	131,917
Tele/Oth Utilities	89,683	91,925	95,142	98,472	101,919
Insurance	28,710	29,428	30,458	31,524	32,627
Deferred Cost W/O	0	0	0	0	0
Support Services:					
Administration	3,379,833	3,464,329	3,585,581	3,711,076	3,840,964
Engineering Services	765,946	785,095	812,573	841,013	870,448
Water Services	123,006	126,081	130,494	135,061	139,788
Environmental Services	80,417	82,427	85,312	88,298	91,388
Capital:					
Debt Service	4,474,269	5,635,111	6,437,581	7,112,569	7,654,474
Renewal & Replacement	3,164,636	3,064,636	3,064,636	3,064,636	3,064,636
Total Expense	23,004,243	24,460,039	25,780,555	26,990,710	28,085,478
Annual Surplus (Deficit)	227,707	-88,040	-211,505	-164,756	60,225
Transfer to Cap Reserve	-48,594	-59,708	-97,133	-172,491	-287,807
Carryforward Surplus	6,008,944	6,188,057	6,040,309	5,731,671	5,394,424
Period End Surplus	6,188,057	6,040,309	5,731,671	5,394,424	5,166,842
Target	5,751,061	6,115,010	6,445,139	6,747,678	7,021,370
Below Target	\$436,996	-\$74,701	-\$713,468	-\$1,353,254	-\$1,854,528

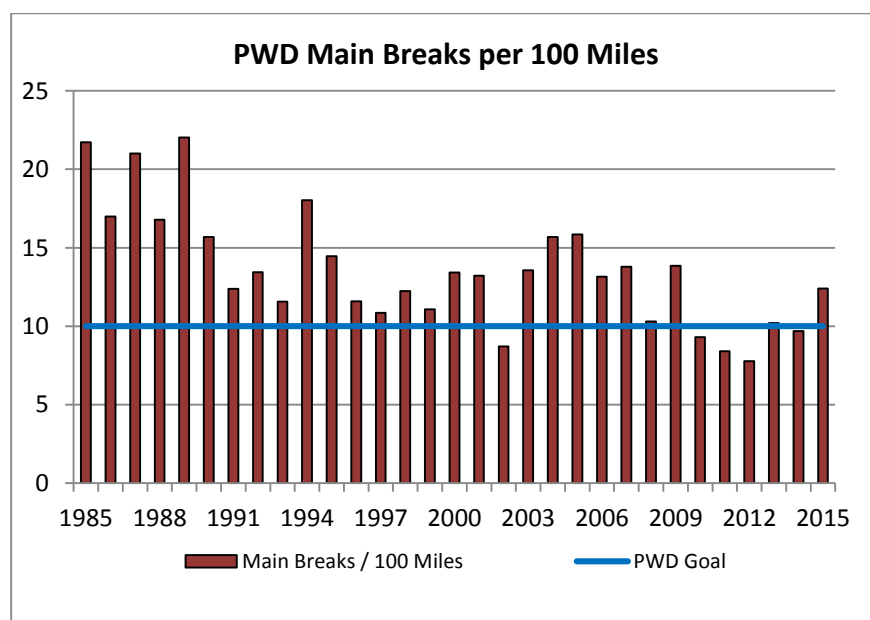
Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$2,833,000

Year	Beg Balance	R&R Contribution	Bond	Land Reserve	Expenditures	End Balance
2017	6,618,305	3,770,000	9,313,600	250,000	12,033,500	7,918,405
2018	7,918,405	3,770,000	7,500,000	0	12,350,000	6,838,405
2019	6,838,405	3,770,000	8,500,000	0	13,100,000	6,008,405
2020	6,008,405	3,770,000	7,000,000	0	10,404,000	6,374,405
2021	6,374,405	3,770,000	6,000,000	0	9,225,000	6,919,405

Water Main Renewals



Our commitment to maintain aging water infrastructure includes replacing water mains. The 2017 budget continues this commitment with planned projects totaling \$7.0 million dollars. The projects will be funded with current year's revenue (\$1 million) and bond proceeds (\$6.0 million). The increased investment in main renewal impacts the number of main breaks.

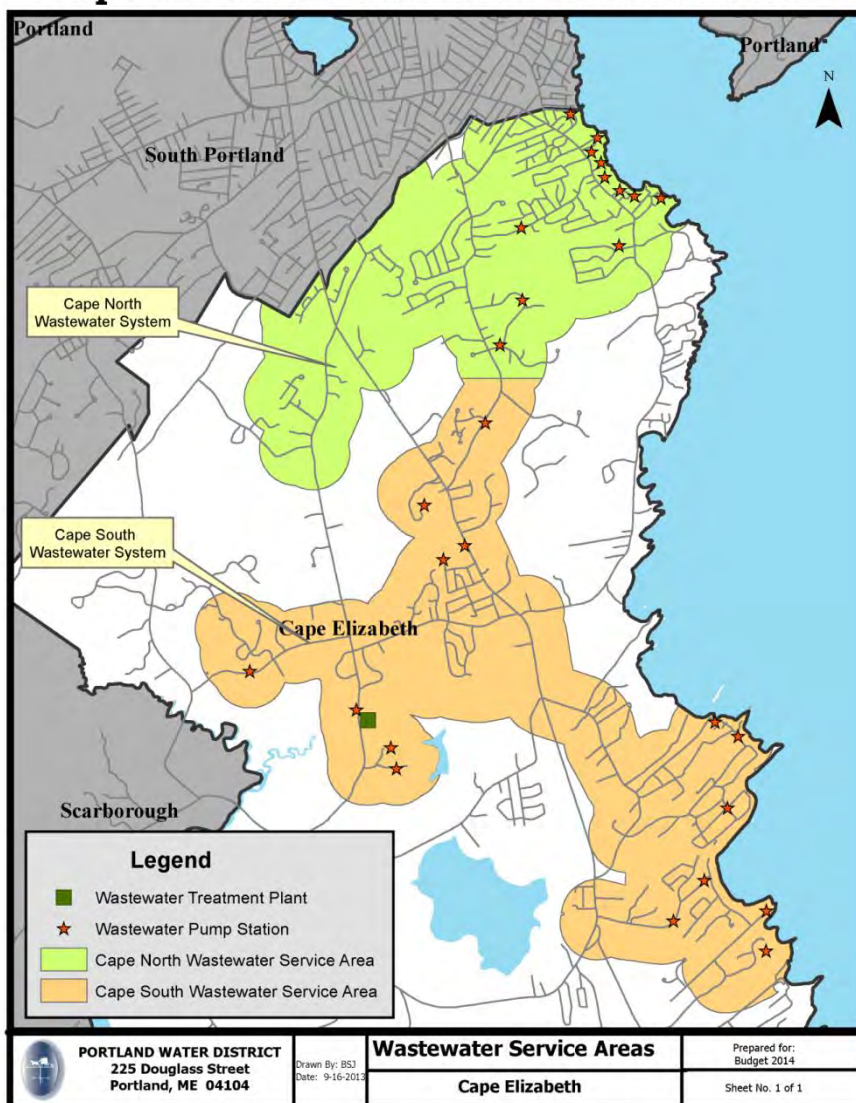


Fund: Wastewater - Cape Elizabeth

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 \$2,070,615 on 2,327

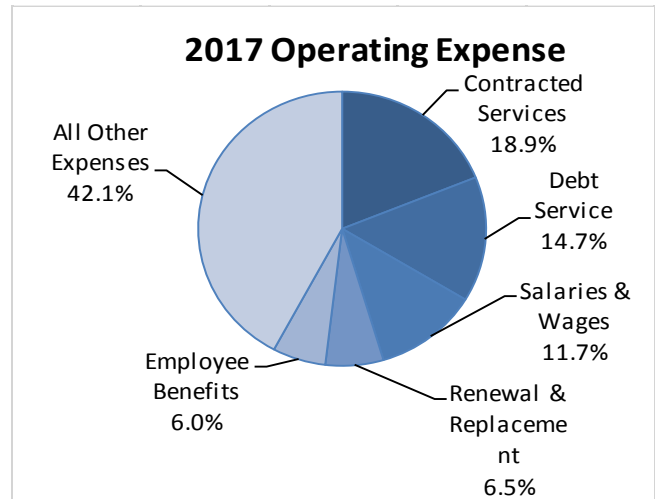
Fund: Wastewater - Cape Elizabeth

2017 Financial Summary

The proposed assessment of \$1,468,692 is a 1.8% increase. The assessment is lower than the forecasted assessment provided the town last year.

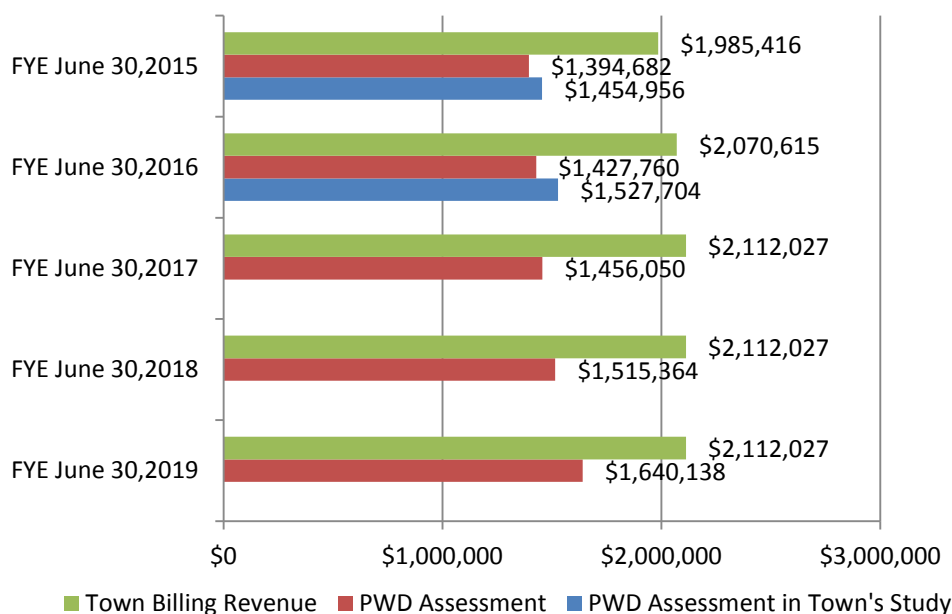
The proposed 2017 Operating Expense and Capital budgets are \$1,475,421 and \$175,000, respectively. The Operating Expense budget increased \$29,044 or 2.0%.

The 2017 Capital budget includes upgrades at the Mitchell Road Pump Station. Work will be financed by the renewal and replacement fund.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is year end. 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 whether or not to increase the sewer billing rates.



Revenue Assumptions:

- Consumption is the 12 months ending June 30, 2016

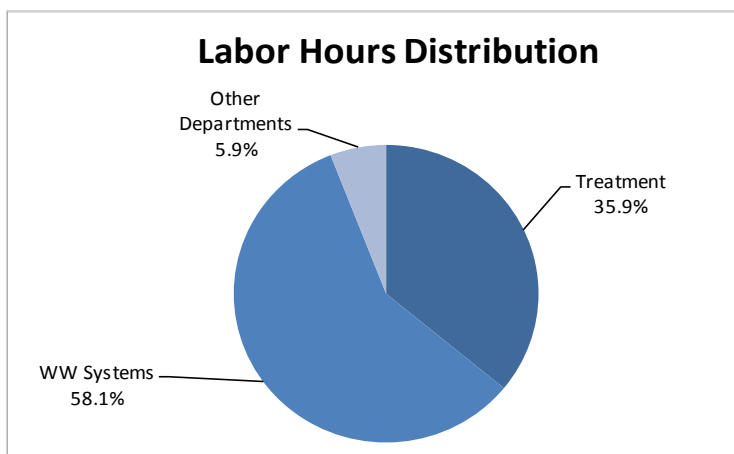
- Rates Assumed:

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

2017 Operating Expense Highlights

Salaries/Wages – Labor hours budgeted decreased 2.9% (209 hours). This combined with District labor rates increasing an average of 2.5% resulted in a marginal 0.1% (\$157) increase in Salaries/Wages. The labor reductions were in the treatment area and are based on actual usage in recent years.

Employee Benefits – Benefits, which are charged as a percentage of regular wages, increased 1.0% (\$850) to a total of \$88,067. The benefit rate increased 0.7% due to increases in pension costs.



Biosolids Disposal – The budget for Biosolids Disposal increased \$5,546 (43.2%) due to an increase in the budgeted amount of wet tons to be disposed from 196 to 280 wet tons. The 2017 Budget was based on the current rate of disposal so far this year which has been higher than in past years due to new operational procedures put in place with the goal to maintain more consistent sludge inventory volumes at the plant. The Budget in 2016 based on lower historical disposal levels.

Contracted Services – The budget increased 3.7 (\$10,020) due to the city of South Portland's increased assessment to treat Cape Elizabeth's flow at their plant.

Heat/Fuel Oil – The budget decreased 12.7% (\$1,844) due to the large drop in the budgeted cost per gallon of heating oil.

Materials & Supplies – The budget increased \$2,700 (7.6%) due to materials budgeted for maintenance work for 2017.

Purchased Power – The Purchased Power budget increased 8.8% (\$6,823) due to increases in both energy and delivery 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 decreased \$828 or 0.2%. Water Services declined due to reductions in large meter testing costs.

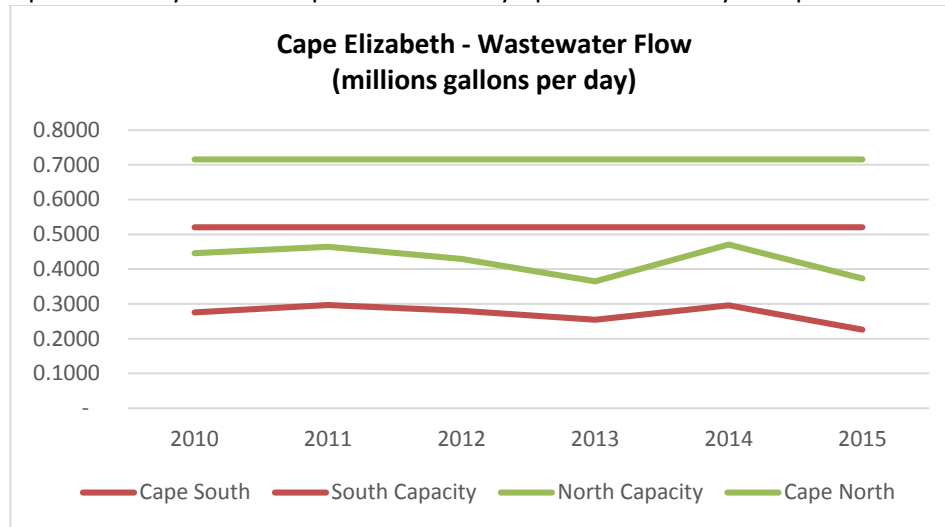
Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This cost increased \$3,521 (1.6%) from the prior year budget to \$219,252.

Renewal & Replacement - Dollars put aside to fund capital projects. A contribution of \$96,038 will be made in 2017.

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Assessment Income	1,412,112	721,704	1,443,408	1,468,692	\$25,284	1.8%
Interest Income	<u>2,798</u>	<u>3,426</u>	<u>2,969</u>	<u>6,729</u>	<u>3,760</u>	<u>126.6%</u>
Total Revenue	1,414,910	725,130	1,446,377	1,475,421	29,044	2.0%
Salaries & Wages	163,711	97,464	172,524	172,681	157	0.1%
Employee Benefits	79,237	46,704	87,217	88,067	850	1.0%
Biosolids Disposal	16,461	9,886	12,844	18,390	5,546	43.2%
Chemicals	11,061	4,517	11,686	12,522	836	7.2%
Contracted Services	230,535	151,089	268,410	278,430	10,020	3.7%
Heat/Fuel Oil	12,647	12,295	14,548	12,704	-1,844	-12.7%
Insurance	5,249	2,627	5,245	5,256	11	0.2%
Materials & Supplies	28,213	19,716	35,500	38,200	2,700	7.6%
Other Expense	4,016	3,953	4,150	4,150	0	0.0%
Purchased Power	71,090	40,617	77,133	83,956	6,823	8.8%
Tele/Other Utilities	8,589	6,011	13,180	13,103	-77	-0.6%
Transportation	37,724	22,492	38,805	40,479	1,674	4.3%
SS - Administration	161,107	86,294	175,025	176,822	1,797	1.0%
SS - Engineering Services	43,485	21,988	76,146	75,196	-950	-1.2%
SS - Environmental Services	33,446	18,345	40,156	40,575	419	1.0%
SS - Wastewater Services	95,158	54,289	98,012	96,102	-1,910	-1.9%
SS - Water Services	<u>2,076</u>	<u>1,294</u>	<u>3,682</u>	<u>3,498</u>	<u>-184</u>	<u>-5.0%</u>
Operating Expense	1,003,805	599,581	1,134,263	1,160,131	25,868	2.3%
Debt Service	188,813	102,868	215,731	219,252	3,521	1.6%
Renewal & Replacement - Direct	80,000	40,000	80,000	80,000	0	0.0%
Renewal & Replace - Indirect	<u>14,598</u>	<u>8,192</u>	<u>16,383</u>	<u>16,038</u>	<u>-345</u>	<u>-2.1%</u>
Total Expense	1,287,216	750,641	1,446,377	1,475,421	29,044	2.0%
Current Year Surplus (Deficit)	127,694	-25,511	0	0		
Transfer to R&R	-14,956	0	0	0		
Prior Year Surplus	<u>287,262</u>	<u>400,000</u>	<u>367,754</u>	<u>382,855</u>		
Accumulated Surplus	400,000	374,489	367,754	382,855		

Operation Summary

Wastewater Treatment: The Cape Elizabeth Wastewater System is divided into two general areas, North and South. Flow generated in the Northern area is ultimately pumped to South Portland for treatment while flow generated in South Cape is treated at the Cape Elizabeth WWTF. The Cape Elizabeth facility is designed to treat 520,000 gallons per day. PWD owns 715,400 gallons per day of capacity at South Portland's WWTF which is reserved for the treatment of flow from the northern area. The peak flow capacity of the Cape Elizabeth treatment plant was increased in 2011 to manage high flows during wet weather. This system has performed as designed during several "record" rain events and has continued to perform very well. The plant is currently operated in a way that provides some nitrogen removal.



In 2016, PWD replaced a 2,000' section of problematic PVC forcemain at the Peabbles Cove Pump Station. This section of forcemain had experienced an increasing number of leaks, apparently due to the frail nature of the PVD in the forcemain. The ductile iron forcemain that was installed should serve the station well into future years.

Effluent Permit Requirements:

Parameter	Discussion														
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 94% of the BOD; well above the required 85% removal.														
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater. The treatment plant removed 97% 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.														
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.														
<p style="text-align: center;">Permit Violations</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Violations</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>4</td> </tr> <tr> <td>2011</td> <td>3</td> </tr> <tr> <td>2012</td> <td>9</td> </tr> <tr> <td>2013</td> <td>0</td> </tr> <tr> <td>2014</td> <td>2</td> </tr> <tr> <td>2015</td> <td>5</td> </tr> </tbody> </table>	Year	Violations	2010	4	2011	3	2012	9	2013	0	2014	2	2015	5	<p>The current Discharge Permit will expire on December 2, 2016. PWD applied for a renewed permit and a draft permit is expected in the Fall of 2016.</p>
Year	Violations														
2010	4														
2011	3														
2012	9														
2013	0														
2014	2														
2015	5														

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 project will mitigate the frequency and volume of overflow during extreme wet weather events by addressing private sources of infiltration and inflow in the collection system 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 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. 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 crew is shown in the table below.

Parameter	2016 Actual to Sep.	2016 Projected
Preventative Work Orders	181	300
Corrective	53	50
Wet wells cleaned	29	40
Debris removed (ton)	44.4	40
Dry Weather Overflows	2	0

2016 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 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 preventative work schedule and the creation of additional preventative work orders.
- Weekend sampling during the summer is now handled by staff from the East End WWTF, reducing routine overtime work.
- The replacement of a 2,000' section of the Peabbles Cove forcemain was completed to address increasingly frequent rates of failure associated with the line. The forcemain issues were responsible for nearly all the permit violation in 2015.

2017 Work Plan

- The Town will continue to implement many of the recommendations of their inflow/infiltration assessment in the Ottawa Rd. area. PWD will continue to assist the Town as needed. PWD will also review the performance of the Ottawa Rd. pump station and the design of a future upgrade. While the ability to increase capacity will be considered, site limitations and the capacity of the downstream sewer system will likely limit any capacity increases.
- Mitchell Road PS will be upgrade, Peabbles Point Shed replaced and Little John Pump Station fuel tank will be removed.
- A feasibility study related to the installation of a UV disinfection system at the treatment plant will continue. This project is currently being considered alongside several other possible projects at the plant. The possible UV system will likely address many of the issues and challenges associated with the needed upgrade of the remote dechlorination system at the Peabbles Cover Pump Station.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability.

Capital project expenditures are financed by issuance of bonds or distribution from the renewal and replacement (R&R) fund. Wastewater bonds are usually issued through the Maine Municipal Bond Bank and utilize the state revolving loan fund (SRF) for eligible projects, which provides a 2% below market interest rate. The renewal and replacement fund is appropriated \$80,000 from the annual assessment in 2017. The planned projects are listed below and for a full description of projects please see the CIP section.

Pump Stations – 52: Routine and equipment renewal and replacements (\$100,000) will be financed through the renewal and replacement fund. Scheduled projects include Mitchell Road PS will be upgrade, Peabbles Point Shed replaced and Little John Pump Station fuel tank will be removed.

Pump Stations – 407: The Peabbles Cove Main (\$275,000) and other treatment plant projects totaling \$500,000 will be financed by a bond in May 2017. These projects were started in 2016.

Treatment Plant – 418: The design of the heating and ventilation system upgrade will be funded by a future bond (\$25,000).

Treatment Plant – 424: Routine and equipment renewal and replacements (\$20,000) and Security upgrades (\$30,000). These projects will be financed through the renewal and replacement fund.

Capital Fund:	2015 Actual	2016 Projected	2017 Budget
Beginning of Year Fund Balance	\$201,832	\$234,302	\$183,454
Source of Funds:			
Bond Proceeds - prior year(s)	240,000	-	-
2017 Bond Proceeds, 2016 CIP	-	500,000	-
Bond Proceeds - future years	-	-	25,000
Renewal and Replacement Contribution	80,000	80,000	80,000
Transfer from Operating Fund	-	93,152	-
Capital Funding	320,000	673,152	105,000
Capital Expenditures:			
Pump Station R&R – 52	275,967	149,000	100,000
SCADA System Controls (prorated) - 177	10,119	-	-
Cape CSO / Pump Station Capital Program - 407	1,444	500,000	-
Treatment Plant Capital Program – 418	-	30,000	25,000
Treatment Plant R&R – 424	-	45,000	50,000
Capital Expenditures	287,530	724,000	175,000
End of Year Fund Balance	234,302	183,454	113,454

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

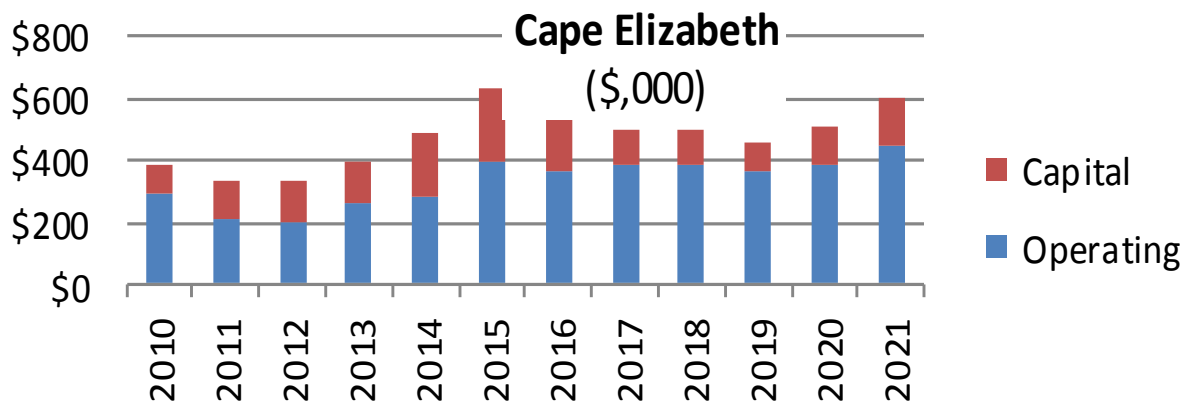
Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5 % per year and pension contribution increase 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new debt assumed a 20-year life at 3%). Significant projects include \$1.5 million upgrades at the treatment facility in 2018 and upgrades at 5 pump stations including Family Field and Maiden Cove.

Assessment is projected to increase to \$1,912,444 with the most significant cost change related to debt service issued to finance capital projects. Reserve balances are expected to be below target balances.

Reserve Fund Balances



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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Cape Elizabeth	14%	15%	15%	15%	18%	24%	25%	25%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Cape Elizabeth	1.66	2.18	1.45	1.44	1.36	1.17	1.25	1.36

Projections for Rate-Making Purposes (continued)

Operating Fund:

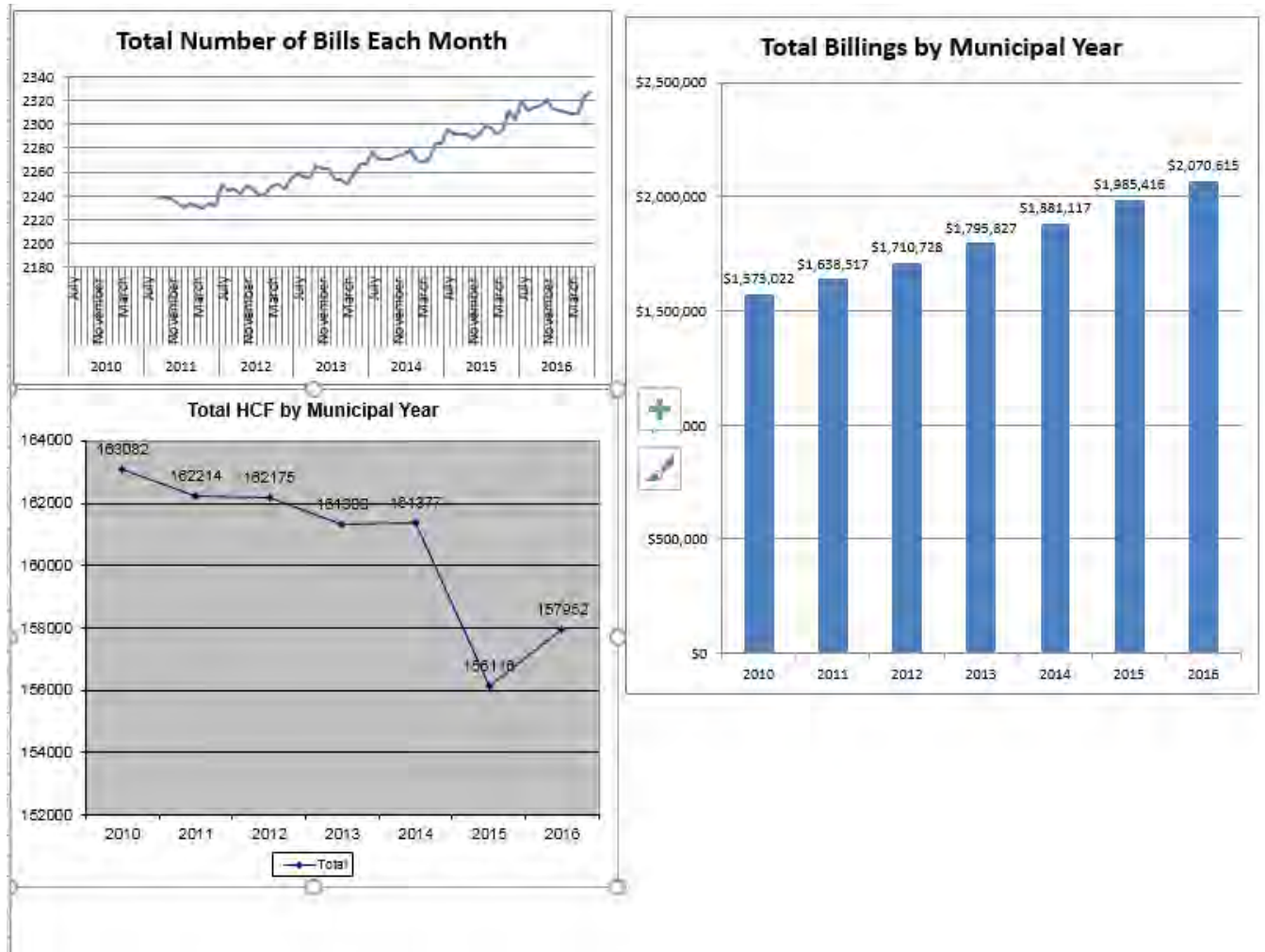
Wastewater Cape Elizabeth	2017	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected	Projected
Assessment Income	\$1,468,692	\$1,562,036	\$1,718,240	\$1,812,743	\$1,912,444
Interest Income	6,729	6,721	6,721	6,721	6,721
FEMA Reimbursement	0	0	0	0	0
Total Revenue	1,475,421	1,568,757	1,724,961	1,819,464	1,919,165
Expense:					
Contracted Svcs	278,430	283,416	289,626	295,810	301,967
Salaries/Wages	172,681	176,998	182,308	187,777	193,410
Employee Benefits	88,067	90,709	93,430	96,233	99,120
Purchased Power	83,956	86,055	89,067	92,184	95,410
Transportation	40,479	41,491	42,943	44,446	46,002
Materials/Supplies	38,200	39,155	40,525	41,943	43,411
Heat/Fuel Oil	12,704	13,022	13,478	13,950	14,438
Biosolids Disposal	18,390	18,850	19,510	20,193	20,900
Tele/Oth Utilities	13,103	13,431	13,901	14,388	14,892
Chemicals	12,522	12,835	13,284	13,749	14,230
Other Expense	4,150	4,254	4,403	4,557	4,716
Insurance	5,256	5,387	5,576	5,771	5,973
Support Services:					
Administration	176,822	181,243	187,587	194,153	200,948
Wastewater Services	96,102	98,505	101,953	105,521	109,214
Engineering Services	75,196	77,076	79,774	82,566	85,456
Environmental Services	40,575	41,589	43,045	44,552	46,111
Water Services	3,498	3,585	3,710	3,840	3,974
Capital:					
Debt Service	219,252	279,873	428,365	445,134	453,717
Renewal & Replacement	96,038	96,038	96,038	96,038	96,038
Total Expense	1,475,421	1,563,512	1,748,523	1,802,805	1,849,927
Annual Surplus (Deficit)	0	5,245	-23,562	16,659	69,238
Carryforward Surplus	382,855	382,855	388,100	364,538	381,197
Period Ending Surplus	382,855	388,100	364,538	381,197	450,435
Target	368,855	390,878	437,131	450,701	462,482
Above/(Below)	\$14,000	-\$2,778	-\$72,593	-\$69,504	-\$12,047

Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$477,250

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2017	183,454	80,000	25,000	175,000	113,454
2018	113,454	80,000	2,250,000	2,330,000	113,454
2019	113,454	80,000	200,000	300,000	93,454
2020	93,454	80,000	300,000	350,000	123,454
2021	123,454	80,000	0	50,000	153,454

Sewer Billing Statistics

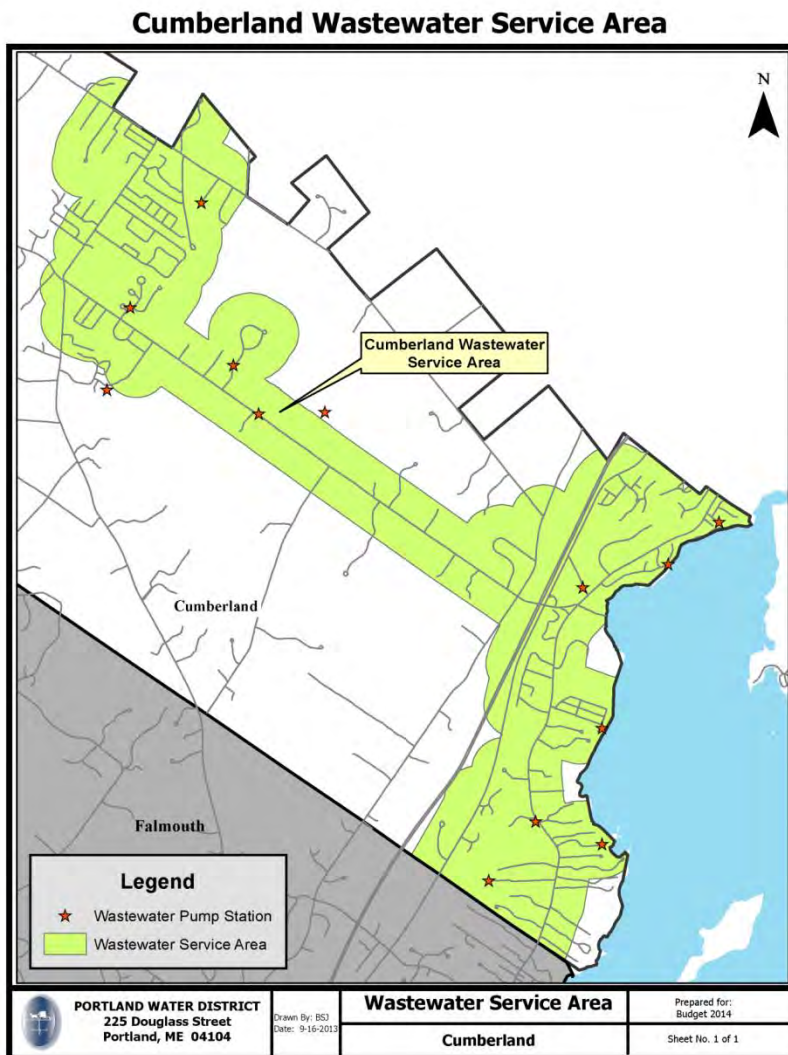
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.



Fund: Wastewater - Cumberland

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. 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
29.2miles of pipe*

Utility Billing Services:

*Annual Billings of
\$930,751 on 1,116
Customers (avg.
\$69.50/month)*

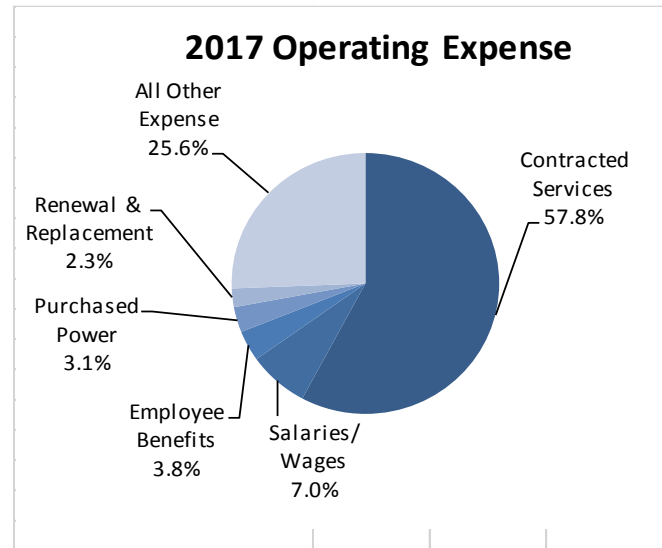
Fund: Wastewater - Cumberland

2017 Financial Summary

The proposed assessment of \$844,584 is a 12.6% (\$94,512) increase from the previous year and is below the forecasted assessment provided the town last year. Much of the increase is related to Falmouth's Mill Creek Pump Station upgrade.

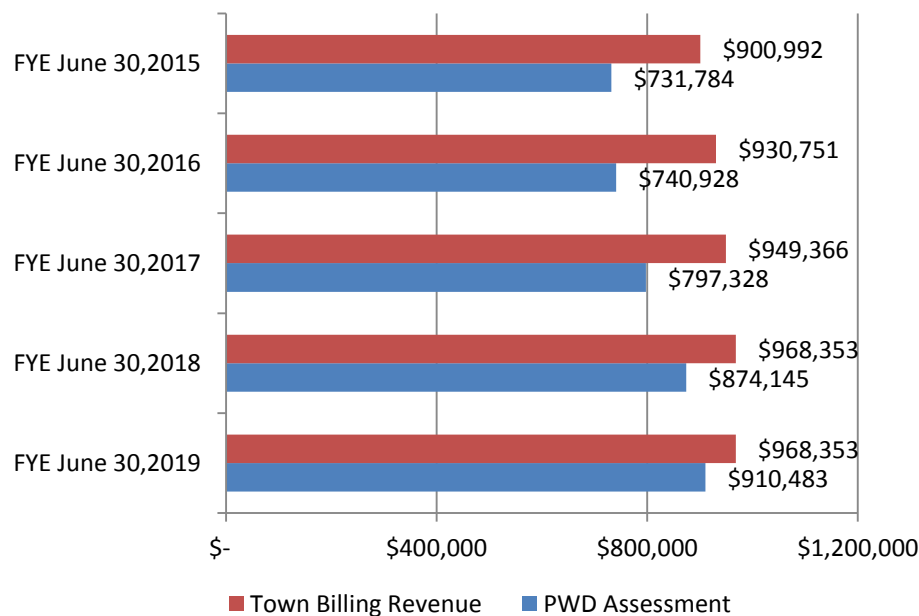
The proposed 2017 Operating Expense and Capital budgets are \$850,372 and \$62,000, respectively. The Operating Expense budget increased \$96,888 or 12.9% mostly due to debt service costs related to the Mill Creek pump station project.

Capital work scheduled for 2017 include upgrades at Ocean Terrace Pump Station. The work will be funded by a withdrawal of \$62,000 from the renewal and replacement fund.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is year end. 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, 2016

- Rates Assumed:

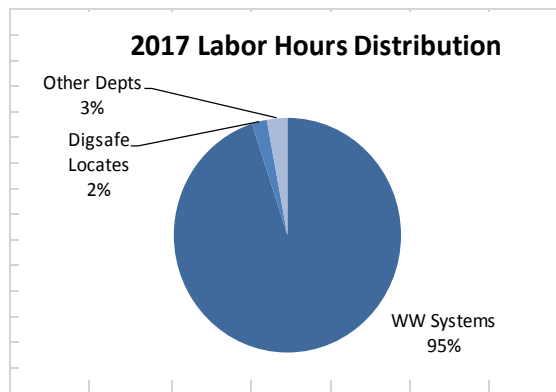
Effective Date:	Base/Per HCF
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Jul 2013	\$34.25/\$4.96
Sep 2013	\$34.25/\$5.29
Sep 2015	\$35.58/\$5.29
Sep 2016	\$36.92/\$5.29
Sep 2017	\$38.26/\$5.29

2017 Operating Expense Highlights

Salaries/Wages – This expense is budgeted to increase 1.1% or \$678 to \$62,335. District labor rates increased an average of 2.5% and hours for this fund increased 1.4% (37 hours).

Employee Benefits – Benefits, which are charged as a percentage of regular wages, increased 1.7% (\$548) to a total of \$32,205. The benefit rate increased 0.7% due to increases in pension costs.



Contracted Services – This category involves payments to the Town of Falmouth for wastewater treatment and pumping services, overall Contracted Services increased 22.8% (\$91,159) to a total of \$491,711. Most of that increase represented Cumberland's portion of the debt service on the upgrades to the Mill Creek wastewater pump station and associated forcemain.

Purchased Power – Average projected power usage and rates were fairly unchanged from the previous budget, overall the budget decreased \$113 (0.4%).

Transportation – Transportation costs increased slightly by 0.7% (\$183), this is in line with the increased labor hours noted above.

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 \$4,825 or 3.2%. Water Services declined due to reductions in large meter testing costs. The increase for Wastewater Services is offset by the lower direct charges for labor/benefits. Administration increased due to the transfer of an employee into this cost pool.

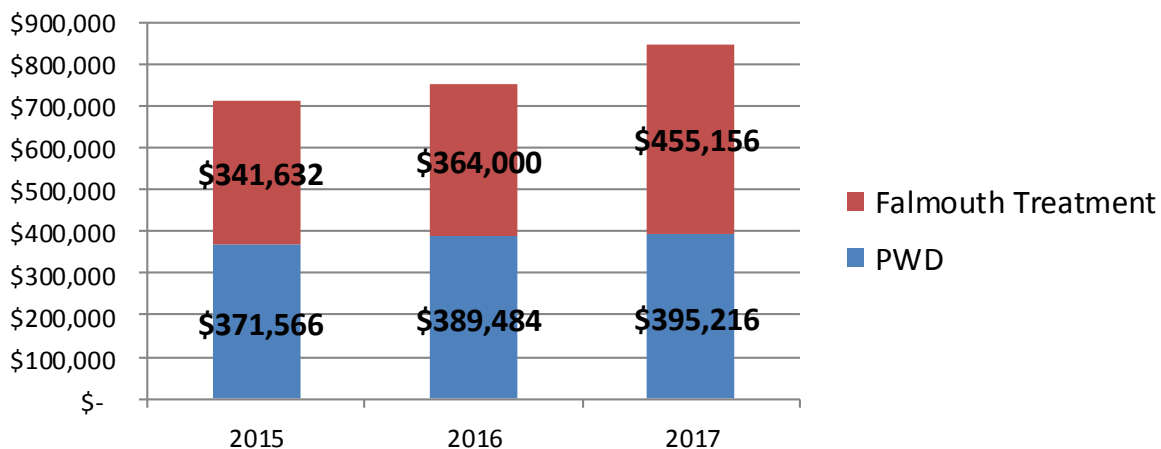
Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. No new debt is expected to be issued in 2017 and the expense will decline 3.8% (\$557).

Renewal and Replacement – This is the annual contribution to a fund to finance smaller capital projects. A contribution of \$27,997 will be made in 2017.

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$731,784	\$375,036	\$750,072	\$844,584	\$94,512	12.6%
Interest Income	3,072	2,952	3,412	5,788	2,376	69.6%
Total Revenue	734,856	377,988	753,484	850,372	96,888	12.9%
Salaries & Wages	61,274	31,634	61,657	62,335	678	1.1%
Employee Benefits	31,197	16,964	31,657	32,205	548	1.7%
Contracted Services	378,922	188,332	400,552	491,711	91,159	22.8%
Heat/Fuel Oil	72	0	140	150	10	7.1%
Insurance	3,244	2,805	3,244	3,336	92	2.8%
Materials & Supplies	15,086	1,953	7,850	7,850	0	0.0%
Other Expense	50	0	0	0	0	n/a
Purchased Power	25,462	13,747	26,819	26,706	-113	-0.4%
Tele/Other Utilities	353	336	425	420	-5	-1.2%
Transportation	21,333	12,316	26,099	26,282	183	0.7%
SS - Administration	85,643	44,898	91,045	95,352	4,307	4.7%
SS - Engineering Services	20,118	10,138	34,849	34,155	-694	-2.0%
SS - Wastewater Services	27,332	13,548	24,641	25,906	1,265	5.1%
SS - Water Services	1,028	650	1,825	1,772	-53	-2.9%
Operating Expense	671,114	337,321	710,803	808,180	97,377	13.7%
Debt Service	14,990	7,219	14,752	14,195	-557	-3.8%
Renewal & Replacement - Direct	19,628	9,814	19,628	19,628	0	0.0%
Renewal & Replace - Indirect	7,466	4,151	8,301	8,369	68	0.8%
Total Expense	713,198	358,505	753,484	850,372	96,888	12.9%
Current Year Surplus (Deficit)	21,658	19,483	0	0		
Transfer to R&R	0	0	0	0		
Prior Year Surplus	307,020	328,678	322,128	360,053		
Accumulated Surplus	328,678	348,161	322,128	360,053		

Contracted Services – Treatment Services from Town of Falmouth

Over half of the annual budget relates to the costs assessed by the town of Falmouth for the use of the treatment facility in Falmouth and costs associated with the upgrade of the Mill Creek pump station and associated force main.

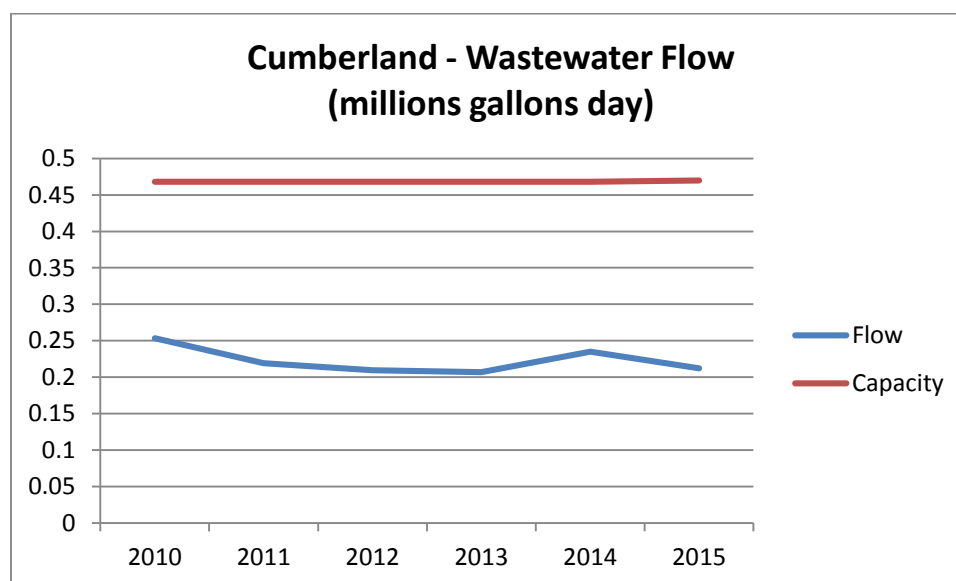


Operation Summary

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 design treatment plant capacity, or the ability to provide 468,000 gallons of wastewater each 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
2015	211,973 gal/day	867,808 gal/day	24.4 %

FWWTF Capacity	Cumberland Cap (30%)	% Capacity Used	Capacity Remaining
1,560,000 gal/day	468,000 gal/day	45.3 %	256,027 gal/day



Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2015 Actual to Sep.	2016 Projected
Preventative Work Orders	100	180
Corrective Work Orders	16	15
Wet wells cleaned	22	30
Debris removed (tons)	49.11	30
Dry Weather Overflows	0	0

Operation Summary (continued)

2016 Other Highlights

- The Town of Falmouth began construction on the Mill Creek Pump Station and forcemain. This work will continue into 2017. This pump station conveys the Town of Cumberland's flow to the Falmouth WWTF.
- 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 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.
- A generator will be installed at the Ledge Road Pump Station.

2017 Work Plan

- The Town and PWD will continue to work with Falmouth during the construction of the upgrade to the Mill Creek Pump Station in Falmouth.
- 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 Ocean Terrace Pump Station will be upgraded.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability.

Capital project expenditures are financed by issuance of bonds or distribution from the renewal and replacement (R&R) fund. Wastewater bonds are usually issued through the Maine Municipal Bond Bank and utilize the state revolving loan fund (SRF) for eligible projects, which provides a 2% below market interest rate. The renewal and replacement fund is appropriated \$19,628 from the annual assessment in 2017. For certain projects within the town's tax increment finance (TIF) area, the town may contribute funds to pay for capital projects.

The planned projects are listed below. Additional information can also be found in the CIP section.

Cumberland Pump Stations – 41: Ocean Terrace Pump Station upgrades (\$42,000) as well as routine renewal and replacements (\$20,000) for a total of \$62,000. These projects will be financed through the renewal and replacement fund.

Capital Fund:	2015 Actual	2016 Projected	2017 Budget
Beginning of Year Fund Balance	\$262,203	\$281,831	\$197,617
Source of Funds:			
Renewal and Replacement	19,628	19,628	19,628
Operating Surplus Transfer	-	26,158	-
Capital Funding	19,628	45,786	19,628
Capital Expenditures:			
Pump Station R&R – 41	-	130,000	62,000
SCADA Systems Controls (prorated) - 177	-	-	-
Capital Expenditures	-	130,000	62,000
End of Year Fund Balance	281,831	197,617	155,245

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:

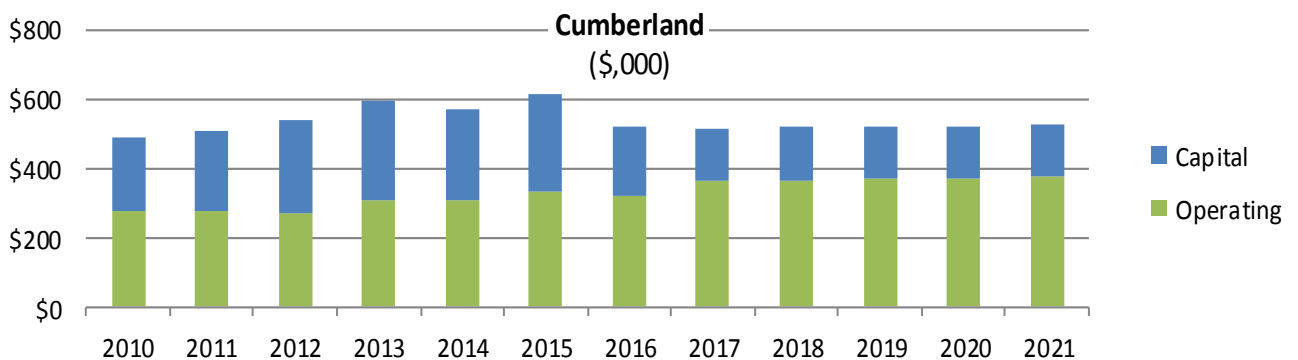
The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5 % per year and pension contribution increase 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan including financing upgrades to 6 pump stations in 2019 and 2021.

Summary

Assessment is projected to increase to \$944,985 by 2021 with the most significant cost change related to Town of Falmouth's assessment increase due to the Mill Creek pump station upgrade. The projection assumes the project will cost \$6M and will be financed with a 20 year bond at an interest rate of 1.5% through the state revolving loan fund. Operating Reserve balance and debt ratios are expected to better than target.

Reserve Fund Balance



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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Cumberland	2%	2%	2%	2%	2%	2%	3%	3%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Cumberland	2.68	4.25	2.89	2.97	3.12	2.94	2.08	2.13

Projections for Rate-Making Purposes (continued)

Operating Fund:

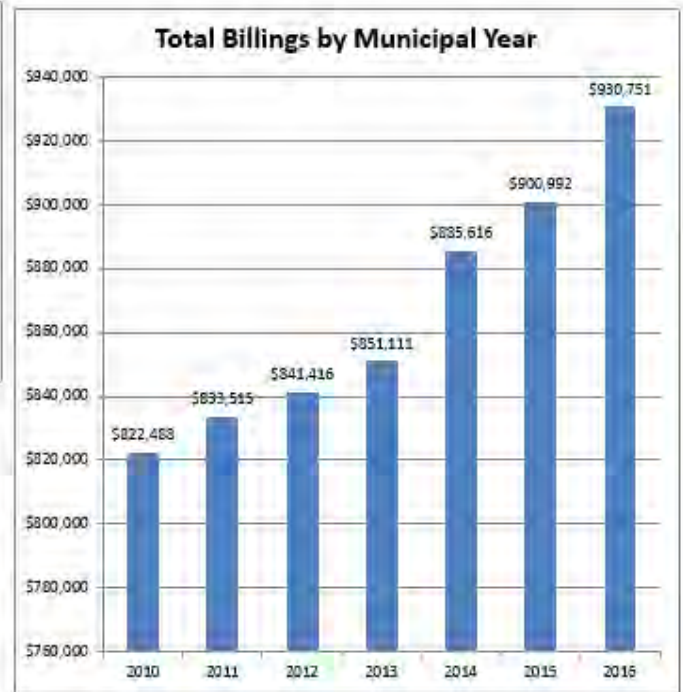
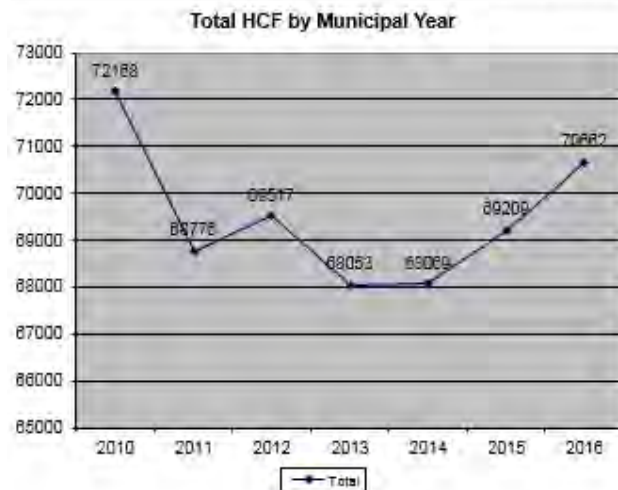
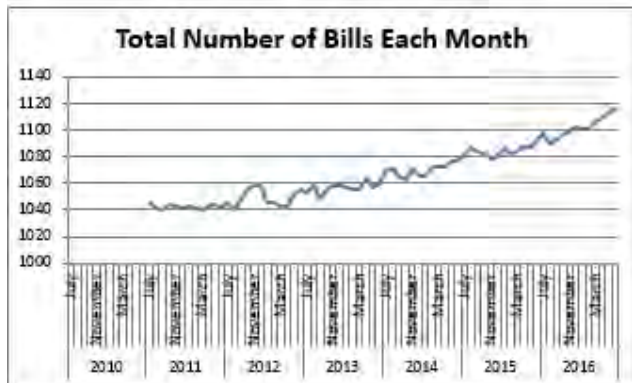
Wastewater Cumberland	2017	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected	Projected
Assessment Income	\$844,584	\$903,705	\$917,261	\$931,020	\$944,985
Interest Income	5,788	5,788	5,788	5,788	5,788
FEMA Reimbursement	0	0	0	0	0
Total Revenue	850,372	909,493	923,049	936,808	950,773
Expense:					
Falmouth Treatment	455,159	507,897	509,887	512,035	514,362
Salaries/Wages	62,335	63,893	65,810	67,784	69,818
Employee Benefits	32,205	33,171	34,166	35,191	36,247
Contracted Srvs	36,552	37,466	38,403	39,363	40,347
Transportation	26,282	26,939	27,612	28,302	29,010
Purchased Power	26,706	26,939	27,612	28,302	29,010
Materials/Supplies	7,850	8,046	8,247	8,453	8,664
Insurance	3,336	3,419	3,504	3,592	3,682
Tele/Oth Utilities	420	431	442	453	464
Heat/Fuel Oil	150	154	158	162	166
Support Services:					
Administration	95,352	95,352	95,352	95,352	95,352
Engineering Services	34,155	34,155	34,155	34,155	34,155
Wastewater Services	25,906	25,906	25,906	25,906	25,906
Water Services	1,772	1,772	1,772	1,772	1,772
Capital:					
Debt Service	14,195	14,102	17,009	26,915	28,997
Renewal & Replacement	27,997	27,997	27,997	27,997	27,997
Total Expense	850,372	907,639	918,032	935,734	945,949
Annual Surplus (Deficit)	0	1,854	5,017	1,074	4,824
Transfer to R&R					
Carryforward Surplus	360,053	360,053	361,907	366,924	367,998
Period Ending Surplus	360,053	361,907	366,924	367,998	372,822
Target	212,593	226,910	229,508	233,934	236,487
Above/(Below) Target	147,460	134,997	137,416	134,065	136,335

Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$232,560

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2017	197,617	19,628	0	62,000	155,245
2018	155,245	19,628	0	20,000	154,873
2019	154,873	19,628	200,000	220,000	154,501
2020	154,501	19,628	0	20,000	154,129
2021	154,129	19,628	135,000	155,000	153,757

Sewer Billing Statistics

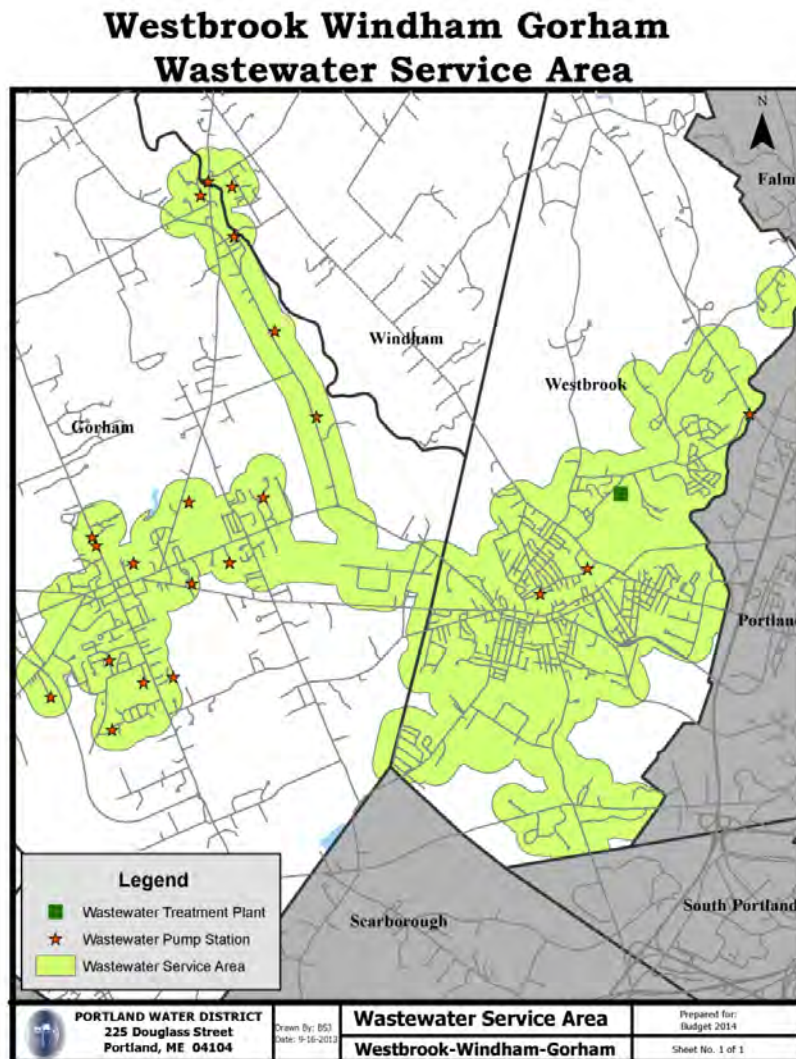
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.



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
\$1,073,556 on 1,783
Customers (avg.
\$50.18/month)*

Fund: Wastewater - Gorham

2017 Financial Summary

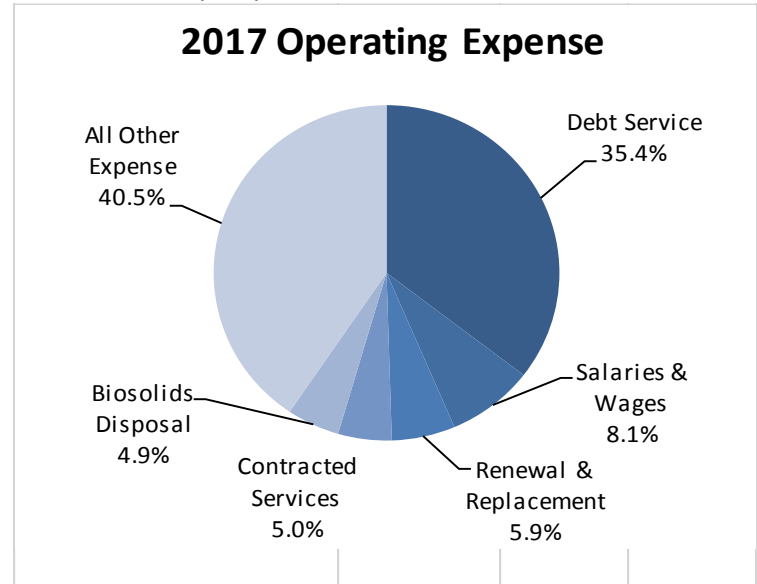
The proposed assessment is \$1,106,148; this is the same assessment as the prior year and was the forecasted assessment provided the town last year.

The proposed 2017 Operating Expense and Capital budgets are \$1,131,713 and \$91,050, respectively.

The Operating Expense budget increase is \$770 or 0.1%. Departmental expense increased due to higher flows at the Westbrook Regional WWTF, this increase was mostly offset by reductions in Debt Service and Renewal & Replacement.

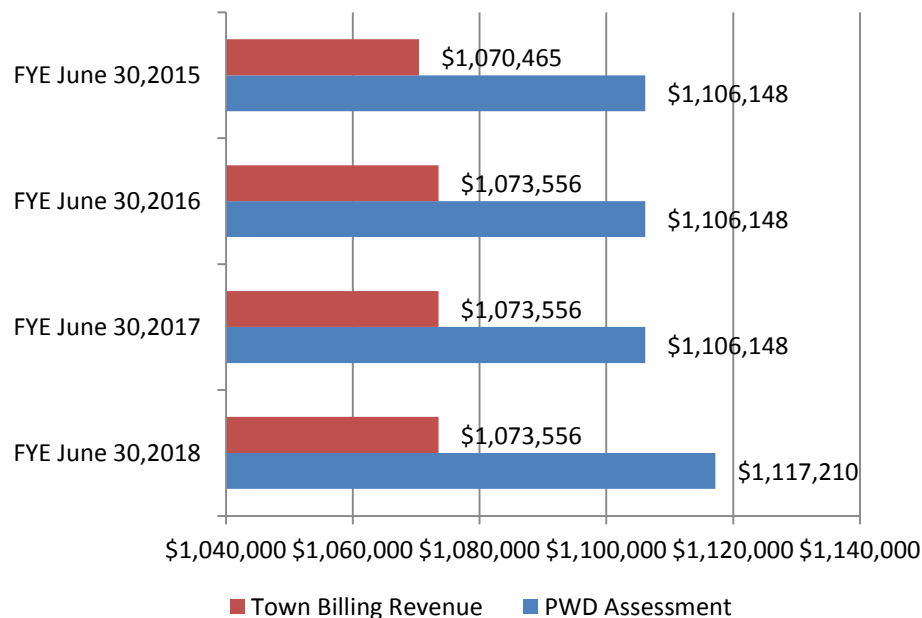
The Capital projects in 2017 include sludge dewatering upgrade at the regional wastewater treatment plant as well as Gateway Commons

and Little River pump stations.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is year end. 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, 2014

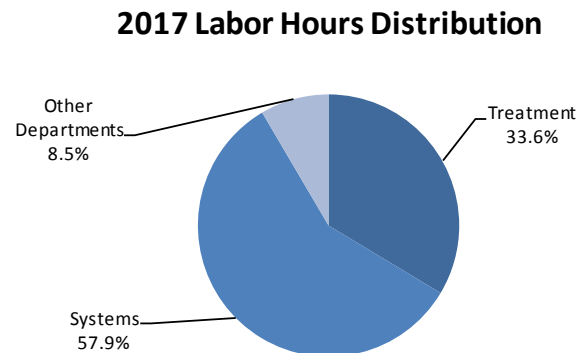
- Rates Assumed:

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

No change in rates since 11/1/2006.

2017 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 \$3,469 (3.9%) to \$92,186. The District's wage rate increased an average of 2.5% and labor hours increased 1.8% (64 hours). A total of 3,680 hours (1.77 full time equivalents) were budgeted (see graph for distribution).



Employee Benefits – Benefit expense increased 3.9% or \$1,795. This cost is charged as a percentage of regular wages.

Biosolids Disposal – The budget assumed a net increase in the costs of disposal at the Westbrook Regional WWTF of 1.2%. However, due to an increase in wastewater flow, Gorham's share of treatment costs increased from 15.0% in 2016 to 16.5% in 2017. The result was an 11.3% (\$5,694) increase in expense.

Materials & Supplies – This item is up \$1,551 (6.7%), with the majority of increase is for materials and chemicals related to odor control efforts at pump stations.

Purchased Power – The budget for power is expected to increase by 17.0% or \$7,656 to \$52,755. This increase was due to increases in rates for both medium and small accounts. Those increases were compounded by the increase in Gorham's flow percentage.

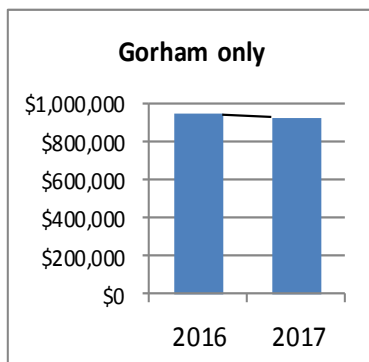
Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$6,805 or 2.5%. Decreases in Water Services are due to reductions in large meter testing. Environmental Services increased in large part due to the increase in the percentage of Gorham's flow at the treatment plant.

Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This item decreased 0.2% (\$731) as older bond issues were retired. Debt Service costs related to connecting the Little Falls area to the regional treatment facility are \$290,191. The balance (\$110,735) relates to costs related to the regional treatment and pump stations facilities and meters.

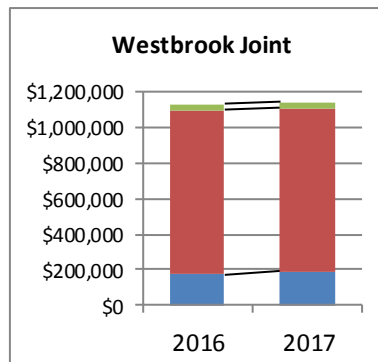
Renewal & Replacement - Dollars put aside to fund smaller capital projects. A contribution of \$67,198 will be made in 2017.

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,106,148	\$553,074	\$1,106,148	\$1,106,148	\$0	0.0%
Interest Income	5,598	5,312	5,995	10,365	4,370	72.9%
<u>Other Income</u>	<u>15,161</u>	<u>4,230</u>	<u>18,800</u>	<u>15,200</u>	<u>-3,600</u>	<u>-19.1%</u>
Total Revenue	1,126,907	562,616	1,130,943	1,131,713	770	0.1%
Salaries & Wages	75,247	35,889	88,717	92,186	3,469	3.9%
Employee Benefits	36,890	18,752	45,793	47,588	1,795	3.9%
Biosolids Disposal	43,470	28,306	50,248	55,942	5,694	11.3%
Chemicals	8,145	5,388	10,638	11,758	1,120	10.5%
Contracted Services	43,130	19,068	52,512	56,795	4,283	8.2%
Heat/Fuel Oil	4,899	3,486	6,405	4,885	-1,520	-23.7%
Insurance	1,513	813	1,621	1,680	59	3.6%
Materials & Supplies	19,872	8,287	23,314	24,865	1,551	6.7%
Other Expense	768	717	903	976	73	8.1%
Purchased Power	39,175	24,150	45,099	52,755	7,656	17.0%
Tele/Other Utilities	1,984	1,449	3,279	3,423	144	4.4%
Transportation	17,667	8,635	29,442	29,471	29	0.1%
SS - Administration	124,070	66,281	134,762	138,198	3,436	2.5%
SS - Engineering Services	44,369	21,055	71,651	70,646	-1,005	-1.4%
SS - Environmental Services	13,525	7,376	15,813	20,049	4,236	26.8%
SS - Wastewater Services	41,848	27,133	49,174	49,390	216	0.4%
<u>SS - Water Services</u>	<u>1,705</u>	<u>1,095</u>	<u>3,060</u>	<u>2,982</u>	<u>-78</u>	<u>-2.5%</u>
Operating Expense	518,277	277,880	632,431	663,589	31,158	4.9%
Debt Service	398,802	194,104	401,657	400,926	-731	-0.2%
Renewal & Replacement - Direct	127,947	41,907	83,815	54,202	-29,613	-35.3%
<u>Renewal & Replace - Indirect</u>	<u>11,595</u>	<u>6,520</u>	<u>13,040</u>	<u>12,996</u>	<u>-44</u>	<u>-0.3%</u>
Total Expense	1,056,621	520,411	1,130,943	1,131,713	770	0.1%
Current Year Surplus (Deficit)	70,286	42,205	0	0		
Transfer to R&R	-177,370	0	0	0		
Prior Year Surplus	<u>417,084</u>	<u>310,000</u>	<u>476,416</u>	<u>389,688</u>		
Accumulated Surplus	310,000	352,205	476,416	389,688		

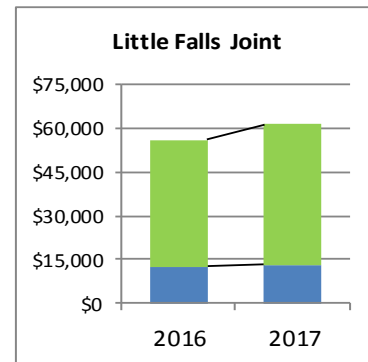
Note: In graphs below Gorham's costs are in blue.



Gorham Only – Down 2.0% or \$19.0k.



Westbrook JT – Up 1.1%, Gorham % up (15.0% to 16.5%), Gorham share up \$19.1k (11.2%).



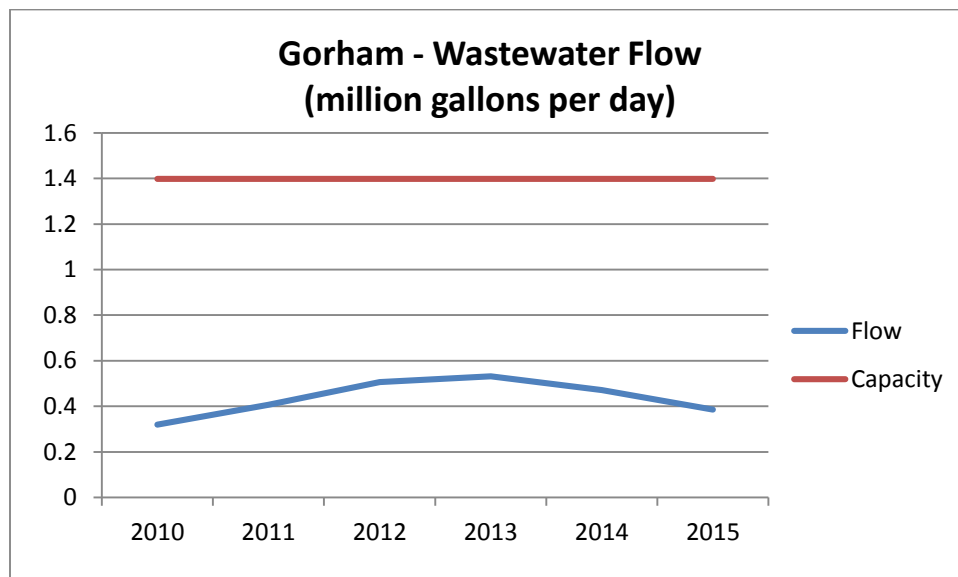
Little Falls JT – Up \$5.4k, Gorham % down (22.5% to 21.5%). Gorham share up \$605 (4.8%).

Operation Summary

Wastewater Treatment: All wastewater generated in Gorham is being treated at the Westbrook/ Gorham/Windham Regional WWTF. The table below depicts flow from Gorham to the regional facility and from the 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	2015 Gorham Flow	Westbrook WWTF Flow	% Gorham Flow
Total Gorham Flow	386,082 gal/day	2,539,808 gal/day	15.2%

WGWWTF Capacity	Gorham Capacity (30.8%)	2015 - % Capacity Used	Capacity Remaining
4,540,000 gal/day	1,398,320 gal/day	27.6%	1,012,238 gal/day



Wastewater Conveyance – interceptors and pumping stations

Parameter	2015 Actual to Sept	2016 Projected
Preventative Work Orders	200	190
Corrective Work Orders	24	20
Wet wells cleaned	18	30
Debris removed (tons)	31.15	35
Dry Weather Overflows	0	0

Operation Summary (continued)

2016 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.
- 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 has 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.

2017 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.
- Sludge Dewatering Upgrades – In 2015 the district piloted a number of dewatering technologies, including the FKC screw press. In 2016, we will seek proposals from several dewatering manufacturers for installation of the selected equipment in 2017.
- The Gateway Commons and Little River Pump Stations will be upgraded in 2017. An odor control system similar to the one successfully installed at the Mallison Rd. Pump Station will be installed at the Little River Pump Station.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability.

Capital project expenditures are financed by issuance of bonds or distribution from the renewal and replacement (R&R) fund. Wastewater bonds are usually issued through the Maine Municipal Bond Bank and utilize the state revolving loan fund (SRF) for eligible projects, which provides a 2% below market interest rate. The renewal and replacement fund is appropriated \$54,202 from the annual assessment in 2017.

The planned projects are listed below. Additional information can also be found in the CIP section.

Regional Treatment Plant Capital – 167: The Westbrook Treatment Facility's sludge dewatering upgrades will be completed in 2017. This project will be bonded (\$1,000,000) and Gorham will pay a prorated share of the costs (\$308,000 or 30.8%). This project was previously approved in 2016.

Regional Treatment Plant R&R – 416: Routine and equipment renewal and replacements (\$50,000) as well as security upgrades (\$50,000) will be financed through the renewal and replacement fund. Gorham will pay a prorated share of the costs (\$30,800).

Gorham Pump Station Repair – 60: Routine and equipment renewal and replacements (\$90,000). These projects will be financed through the R&R fund for Gateway Commons' pump replacement (\$25,000) and the manhole raising on Main Street (\$20,000). The pump repair at Little River, which is part of Little Falls, will be financed by R&R (\$35,000 – Gorham's share is \$5,250), otherwise, the rest are Gorham only who will pay 100% of the repair costs.

Capital Fund:	2015 Actual	2016 Projected	2017 Budget
Beginning of Year Fund Balance	\$522,545	\$661,209	\$784,063
Source of Funds:			
2017 Bond Proceeds, 2016 CIP	-	308,000	-
Renewal and Replacement Contribution	127,947	83,815	54,202
Operating Surplus Transfer	73,406	177,370	-
Capital Funding	201,353	569,185	54,202
Capital Expenditures:			
Gorham Pump Station R&R – 60	-	115,000	60,250
Laboratory Equipment R&R (prorated) – 95	-	-	-
Treatment Plant Flow Splitting & Secondary Clarifier Carry-Forward Project (prorated) – 167	-	-	-
WWTF Sludge Dewatering (prorated) – 167	55,639	331,331	-
SCADA System Controls @ WWTF(prorated) -177	-	-	-
Little Falls R&R - 180	-	-	-
Treatment Plant R&R (prorated) – 416	7,050	-	30,800
Capital Expenditures	62,689	446,331	91,050
End of Year Fund Balance	661,209	784,063	747,215

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:

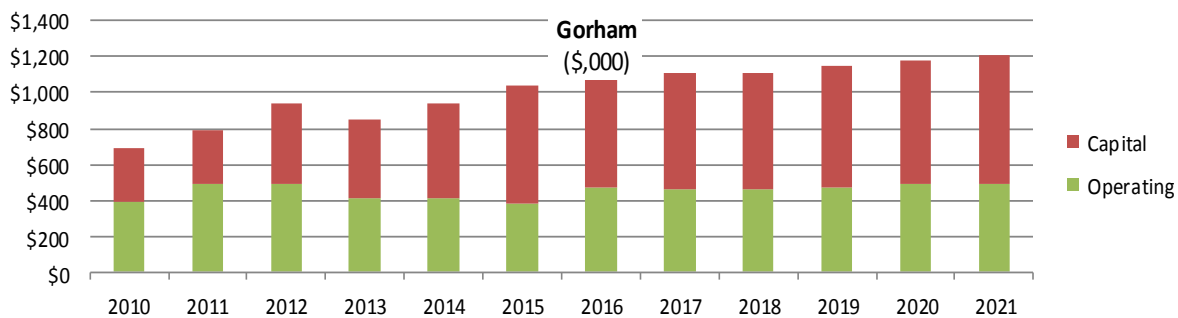
The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5 % per year and pension contribution increase 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new debt assumed a 20-year life at 3%). Significant projects include \$2.3 million secondary clarifier upgrade at the treatment facility in 2020

Summary

Assessment is projected to increase to \$1,200,265 by 2021. Reserves balance and debt ratios are expected to better than target.

Reserve Fund Balances



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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Gorham	39%	38%	36%	35%	35%	34%	33%	33%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Gorham	1.37	1.53	1.24	1.17	1.18	1.21	1.21	1.16

Projections for Rate-Making Purposes (continued)

Operating Fund:

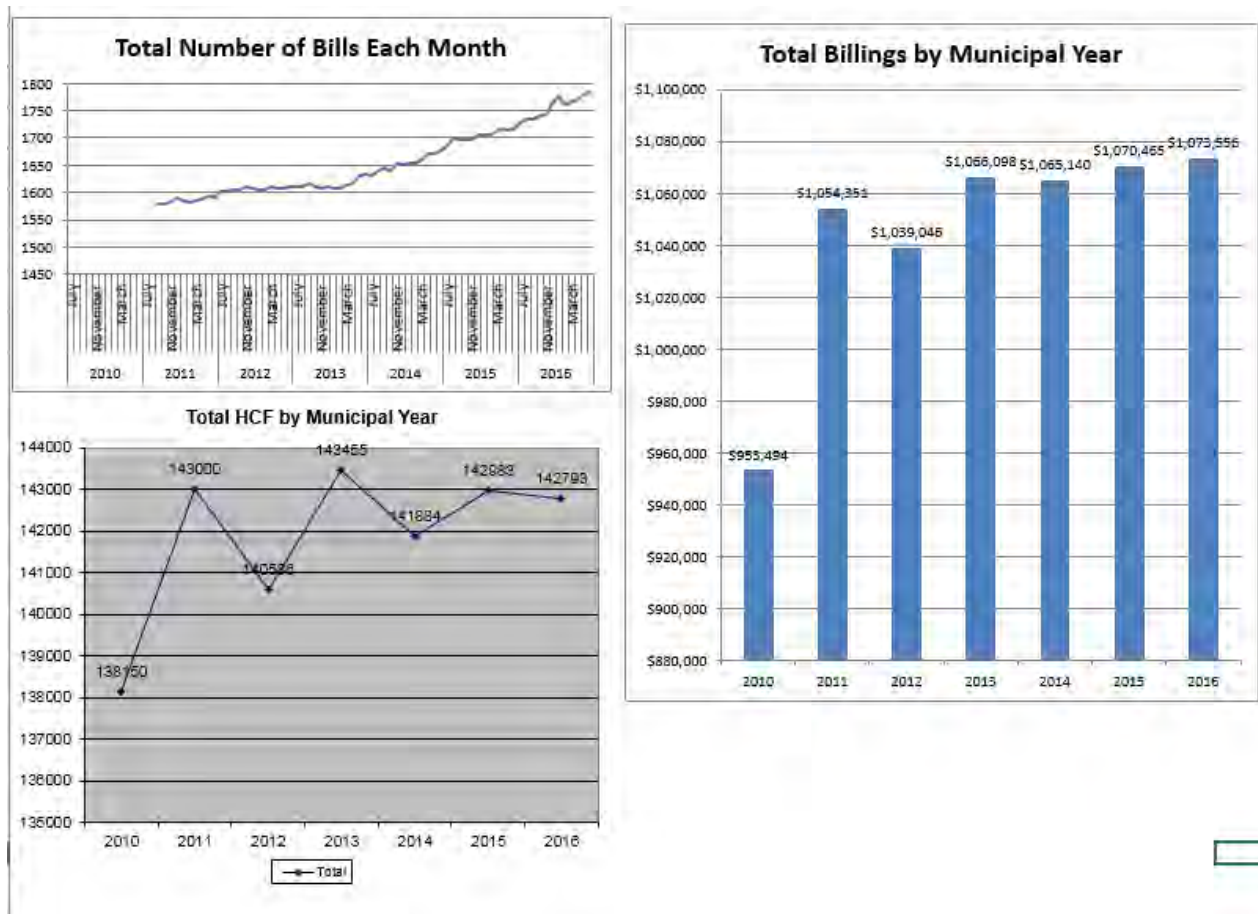
Wastewater Gorham	2017	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected	Projected
Assessment Income	\$1,106,148	\$1,128,271	\$1,150,836	\$1,173,853	\$1,200,265
Other Income	15,200	15,200	15,200	15,200	15,200
Interest Income	10,365	10,365	10,365	10,365	10,365
Total Revenue	1,131,713	1,153,836	1,176,401	1,199,418	1,225,830
Expense:					
Contracted Svcs	56,795	58,215	60,253	62,362	64,545
Salaries/Wages	92,186	94,491	97,326	100,246	103,253
Employee Benefits	47,588	49,016	50,486	52,001	53,561
Purchased Power	52,755	52,755	54,601	56,512	58,490
Biosolids Disposal	55,942	57,341	59,348	61,425	63,575
Transportation	29,471	30,208	31,265	32,359	33,492
Chemicals	11,758	12,052	12,474	12,911	13,363
Materials/Supplies	24,865	25,487	26,379	27,302	28,258
Heat/Fuel Oil	4,885	5,007	5,182	5,363	5,551
Tele/Oth Utilities	3,423	3,509	3,632	3,759	3,891
Insurance	1,680	1,722	1,782	1,844	1,909
Other Expense	976	1,000	1,035	1,071	1,108
Support Services:					
Administration	138,198	141,653	145,194	148,824	152,545
Engineering Services	70,646	78,812	80,782	82,802	84,872
Environmental Services	20,049	20,550	21,064	21,591	22,131
Wastewater Services	49,390	50,625	51,891	53,188	54,518
Water Services	2,982	3,057	3,133	3,211	3,291
Capital:					
Debt Service	400,926	396,870	390,218	391,968	409,283
Renewal & Replacement	67,198	67,198	67,198	67,198	67,198
Total Expense	1,131,713	1,149,568	1,163,243	1,185,937	1,224,834
Annual Surplus (Deficit)	0	4,268	13,158	13,481	996
Transfer to R&R					
Carryforward Surplus	459,974	459,974	464,242	477,400	490,881
Period Ending Surplus	459,974	464,242	477,400	490,881	491,877
Target	282,928	287,392	290,811	296,484	306,209
Above Target	\$177,046	\$176,850	\$186,589	\$194,397	\$185,669

Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$528,139

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2017	682,478	54,202	0	91,050	645,631
2018	645,631	54,202	0	53,500	646,334
2019	646,334	54,202	77,000	103,632	673,905
2020	673,905	54,202	708,400	744,580	691,928
2021	691,928	54,202	0	25,400	720,731

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.

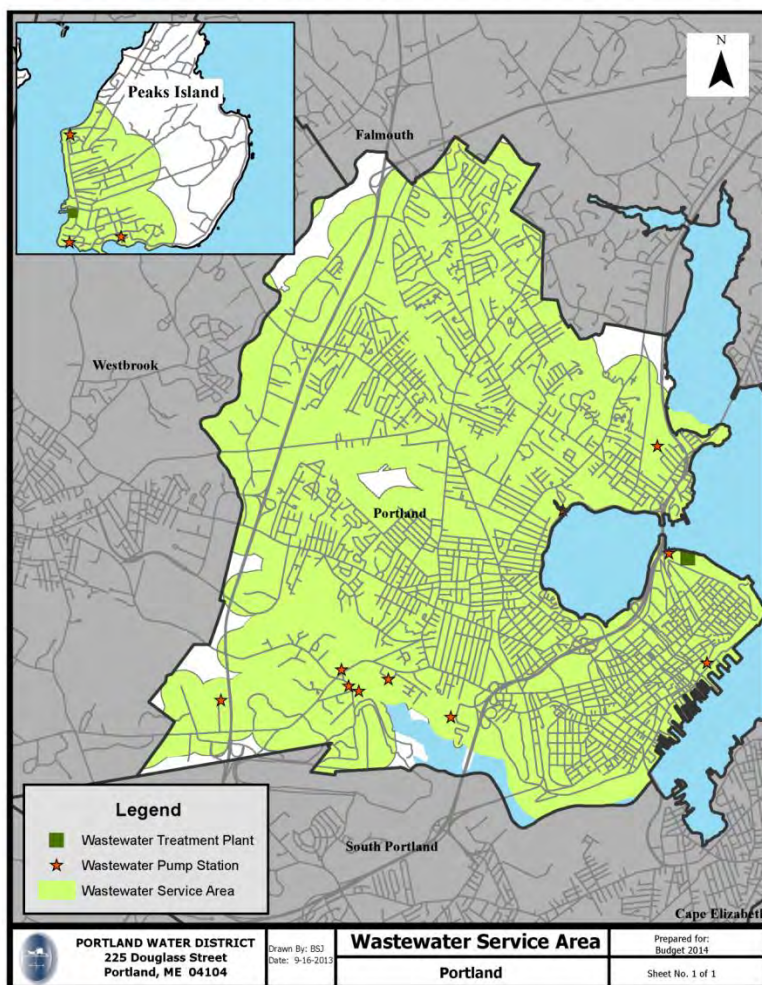


Fund: Wastewater - Portland

Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system-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 \$20,886,113 on 17,036 Customers (avg. \$102.16/month)

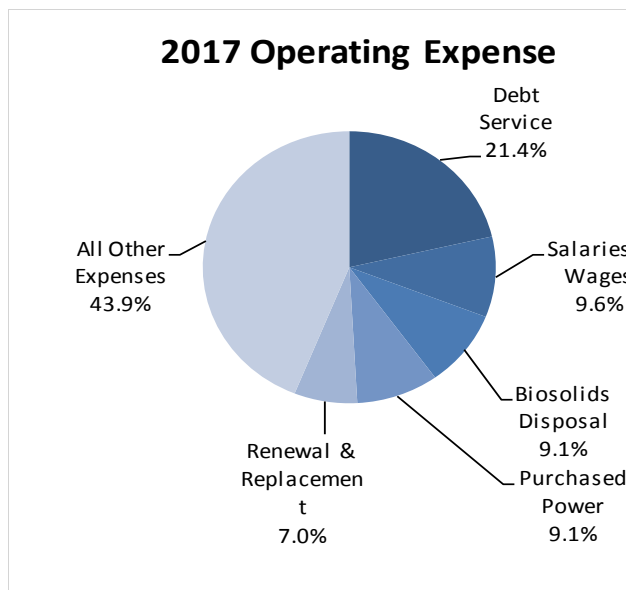
Fund: Wastewater - Portland

2017 Financial Summary

The city's assessment will increase 4.7% or \$533,232 to \$11,841,972. The assessment is less than the forecasted assessment provided to the city last year.

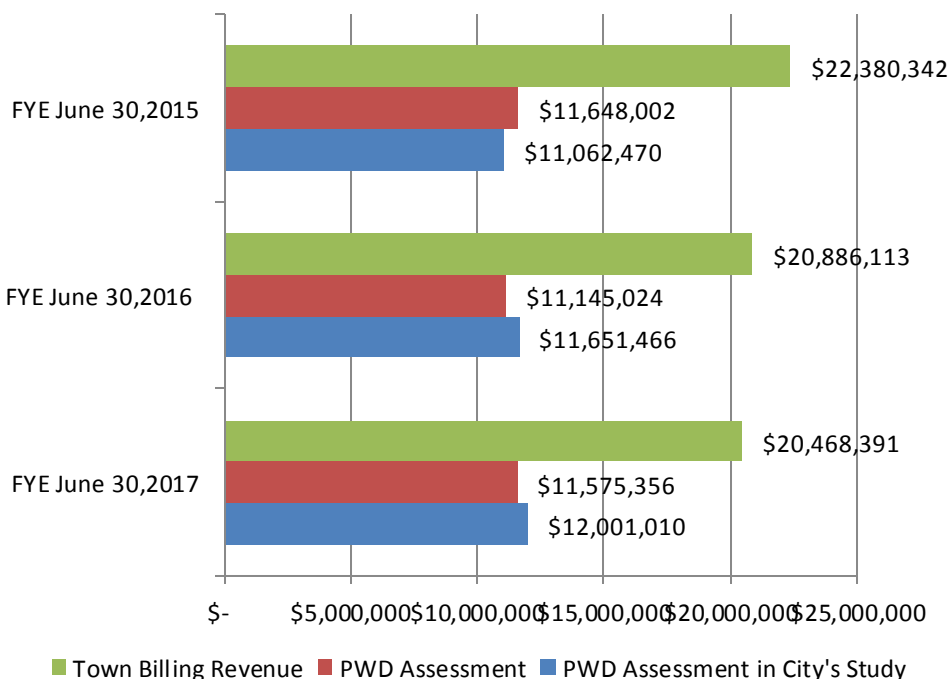
The proposed 2017 Operating Expense and Capital budgets are \$12,025,881 and \$3,935,000, respectively.

The Operating Expense budget is \$601,348, or 5.3%, higher than the previous year. Departmental expense increased by 2.5% or \$206,435. Debt service increased \$395,557 (18.4%) and renewal & replacement (direct and indirect) will be \$857,202.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is year end. 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, 2014

- 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

Per study:

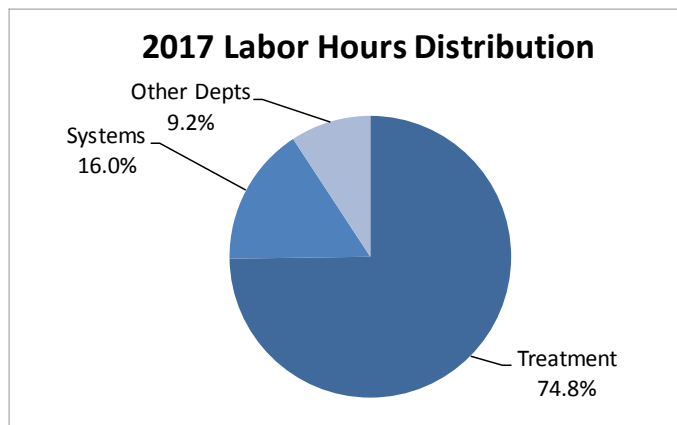
Jul 1 2016 \$9.35
(delayed to Jan 1 2017)

Jul 1 2017 \$10.25

2017 Operating Expense Highlights

Salaries/Wages – Budgeted expenses increased 3.4% or \$38,257 to \$1,151,367. The increase was primarily due to the wage rate increase of 2.5% and the number of hours budgeted to this account. A total of 45,754 hours (22.0 full time equivalents) were budgeted for 2017.

Employee Benefits – This cost is charged as a percentage of regular wages. It increased 4.2% or \$23,399 to a total of \$579,216. The benefit rate increased 0.7% due to increases in pension costs.



Biosolids Disposal – The budget for this item was increased 5.0% (\$51,967). The budget assumes an increase in volume (wet tons) of 4.7% based on the three-year average for the facility and a small per tons (0.2%) cost increase.

Chemicals – Overall this category is down \$113,389 or 18.2%. Polymer price has been reduced 32% due to the market as well as a new vendor. Additionally, volume budgeted has been reduced 21% based on actual usage over the past 3 years. All other chemical budgets are relatively unchanged.

Heat/Fuel Oil – The majority of the expense in this category involves pipeline delivered natural gas at the East End WWTF. The budget, a reduction of \$29,334, assumes a decrease in the per unit price from the previous budget while anticipating similar usage.

Purchased Power – Decreases in large energy expense for the EEWWTF and India St WWPS somewhat offset large increases in medium energy and large/medium delivery expense. The result was an increase of 13.8% (\$132,615).

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 2.8% (\$81,157). Reductions in Water Services (due to reductions in large meter testing) and Environmental Services (due to reductions in required laboratory testing) mostly offset the increase in Wastewater Services. That increase was due to an increase labor and benefits dollars allocated; this change was result of the consolidation of treatment personnel into one organizational unit.

Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. The expense will increase \$400,557 (18.6%) in the 2017 budget for bonds to be issued for the East End WWTF aeration and Fore River WWPS projects.

Renewal and Replacement – This is the fund's annual contribution to a fund to finance smaller capital projects. A contribution of \$832,202 will be made in 2017.

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$10,981,308	\$5,654,370	\$11,308,740	\$11,841,972	\$533,232	4.7%
Interest Income	28,372	21,711	16,093	43,909	27,816	172.8%
Other Income	<u>140,678</u>	<u>39,354</u>	<u>99,700</u>	<u>140,000</u>	<u>40,300</u>	<u>40.4%</u>
Total Revenue	11,150,358	5,715,435	11,424,533	12,025,881	601,348	5.3%
Salaries & Wages	1,093,446	558,606	1,113,110	1,151,367	38,257	3.4%
Employee Benefits	512,985	275,332	555,817	579,216	23,399	4.2%
Biosolids Disposal	1,167,784	579,407	1,042,419	1,094,386	51,967	5.0%
Chemicals	555,817	321,493	622,957	509,568	-113,389	-18.2%
Contracted Services	521,060	187,260	570,392	610,548	40,156	7.0%
Heat/Fuel Oil	153,361	61,241	138,294	108,960	-29,334	-21.2%
Insurance	26,145	13,093	26,133	26,247	114	0.4%
Materials & Supplies	216,190	132,585	286,629	282,559	-4,070	-1.4%
Other Expense	11,587	-7,722	16,082	16,950	868	5.4%
Purchased Power	899,040	456,011	960,652	1,093,267	132,615	13.8%
Tele/Other Utilities	102,246	54,928	119,197	110,096	-9,101	-7.6%
Transportation	76,373	37,804	100,070	93,866	-6,204	-6.2%
SS - Administration	1,223,303	651,579	1,328,833	1,375,975	47,142	3.5%
SS - Engineering Services	277,157	141,309	487,984	483,536	-4,448	-0.9%
SS - Environmental Services	255,784	138,219	300,918	255,122	-45,796	-15.2%
SS - Wastewater Services	806,212	402,643	708,247	794,378	86,131	12.2%
SS - Water Services	<u>20,009</u>	<u>12,692</u>	<u>35,538</u>	<u>33,666</u>	<u>-1,872</u>	<u>-5.3%</u>
Operating Expense	7,918,499	4,016,480	8,413,272	8,619,707	206,435	2.5%
Debt Service	1,969,743	1,047,792	2,153,415	2,553,972	400,557	18.6%
Renewal & Replacement - Direct	728,196	362,500	725,000	720,000	-5,000	-0.7%
Renewal & Replace - Indirect	<u>115,061</u>	<u>66,423</u>	<u>132,846</u>	<u>132,202</u>	<u>-644</u>	<u>-0.5%</u>
Total Expense	10,731,499	5,493,195	11,424,533	12,025,881	601,348	5.3%
Current Year Surplus (Deficit)	418,859	222,240	0	0		
Transfer to R&R	-174,967	0	0	0		
Prior Year Surplus	<u>3,324,976</u>	<u>3,568,868</u>	<u>3,503,647</u>	<u>3,983,753</u>		
Accumulated Surplus	3,568,868	3,791,108	3,503,647	3,983,753		

Operation Summary

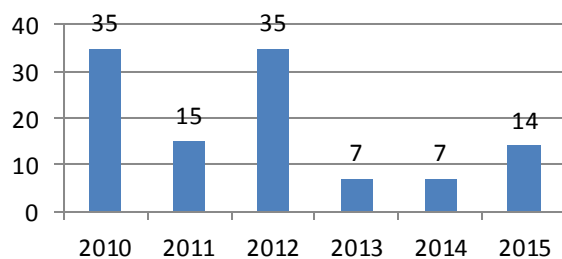
Wastewater Treatment: The Portland Water District owns, operates and maintains the treatment facilities in the City of Portland. The largest facility, the East End WWTF is located off of the Eastern Promenade while the Peaks Island facility is located by the ferry dock on the island. As shown below, permit compliance has improved steadily over the past five years due to continued investment on operational enhancements.

EEWTF Parameter	DEP Limit	2015 Facility Avg	2014 - % Capacity Used
Flow (million gallons per day)	19.8 mgd	16.38 mgd	82.7 %
Biosolids Removed (wet tons/month)	N/A	1,529 wt/month	

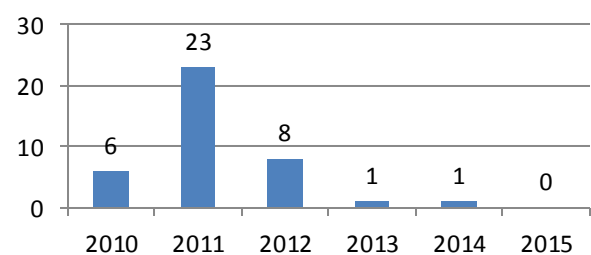
Effluent Permit Requirements:

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. 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.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.

EEWWTF License Exceedences



Peaks Island WWTF License Exceedences

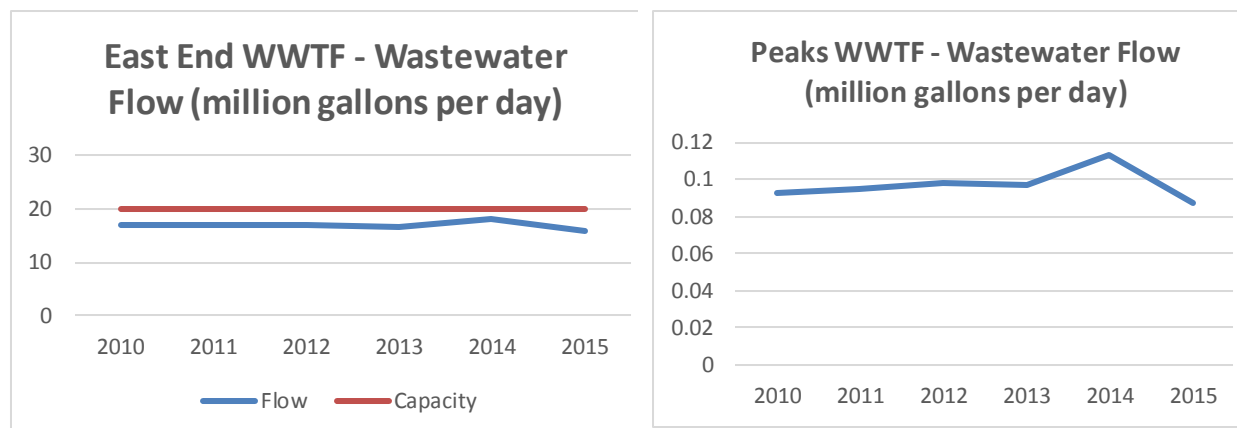


Operation Summary (continued)

The current Discharge Permit for the East End facility expired on August 17, 2016. PWD applied for a new permit in a timely manner and a draft permit was issued. Several parties, including EPA, have commented on the draft permit with an interest in the establishment of effluent nitrogen limits. As of September, negotiations between DEP, PWD, and these parties continued.

The current Discharge Permit for the Peaks Island facility will expire on June 4, 2017. The renewal process will begin in the early part of 2017. The possible inclusion of an effluent nitrogen limit will be reviewed during the permit renewal process.

The treatment facility on Peaks Island provides wastewater treatment to the residents and business on Peaks Island. Waste solids generated on the island are hauled to the mainland and generally processed at the EEWTF. With the completion of the Island Ave. 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 2017, an analysis of the current capacity, along with suggested upgrades or opportunities for capacity improvements will be completed.



Wastewater Conveyance – interceptors and pumping stations

Parameter	2016 Actual to Sept	2017 Projected
Preventative Work Orders	140	150
Corrective Work Orders	51	50
Wet wells cleaned	10	15
Debris removed (tons)	14.5	15
Dry Weather Overflows	1	0

Operation Summary (continued)

2016 Other Highlights

- Monthly CSO activities continue to be monitored and reported by PWD for regular distribution to stakeholders. Sites are continuously monitored by web base software. In 2016, many of these decade-old units have reached the end of their service life and are being 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 \$11.4 million aeration project at the East End plant continues. The first of 3 upgraded aeration tanks was placed into service in August 2016. The second tank is expected to be completed by December 2016. Following this, the third and final tank will be upgraded and placed into service by summer of 2017.
- The aeration construction project, coupled with a failure of equipment in an existing aeration tank, resulted in a significant increase in odors from the plant and effluent compliance issues in the month of July. The start-up of the first aeration basin has nearly eliminated these compliance issues and greatly reduced the intensity and frequency of odors. The aeration system upgrade should prevent a reoccurrence of the types of odors experienced in 2016. The design and installation of an odor control system for the Northeast Pump Station has been included in the 2017 Capital Improvements Plan.
- The Peaks Island Facility continued to operate well through the summer due to operational changes implemented by staff to accommodate the high seasonal loadings. The installation of an ultraviolet disinfection system has improved plant performance and reduced the need for regularly scheduled weekend visits to the facility. Staff did complete additional monitoring of weekend loadings in order to document the effect of increased weekend visitors on the treatment plant. The facility is monitored through the SCADA control system at the East End WWTF.
- Through a cooperative effort with Engineering Services all the equipment at the Peaks Island treatment plant was reviewed and the information in the asset management system was updated. Work will continue at the East End plant in the coming years.
- The Fore River Pump Station Upgrade began in 2015 and will continue in 2017. This project will replace the pumps, which are original pumps included to the 1979 pump station.

2017 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 will both be completed in 2017. These assessments will result in a long-range plan for the replacement and refurbishment of these critical support systems.
- A number of manholes along Baxter Blvd. will be refurbished or replaced in 2017. This will help eliminate some of the inflow and infiltration of seawater experienced during high tides.
- An odor control system at the North East Pump Station will be designed and construction will begin in 2017. This should help alleviate odors from the entrance to the East End WWTF.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. Projects are financed by issuance of bonds or distribution from the renewal and replacement (R&R) fund. The planned projects are listed below and a detailed list can be found in the CIP section:

Pump Stations R&R – 70: Baxter Boulevard manhole replacement (\$50,000) and routine and equipment renewal and replacements (\$50,000), financed from the renewal and replacement fund totaling \$100,000.

Portland CSO Mitigation – 131: India and Northeast Pump station upgrades financed from the renewal and replacement fund totaling \$20,000.

East End Treatment Plant R&R – 409: Numerous projects including grit removal system, meter replacement totaling \$485,000, will be financed from the renewal and replacement fund.

Portland WW Pump Station – 420: Phase 3-5 upgrades at the Fore River Pump Station as well as Odor Control at Northeast pump station totaling \$3,050,000 will be bonded.

Peaks Island R&R – 423 / 118: Peaks Island WWTF pump replacement and catch basin repairs, financed from the renewal and replacement fund (\$185,000).

Capital Fund:	2015 Actual	2016 Projected	2017 Budget
Beginning of Year Fund Balance	\$2,402,587	\$2,562,558	\$2,463,172
Source of Funds:			
Bond Proceeds - prior year(s)	-	11,200,000	-
Bond Proceeds - current year	2,000,000	-	3,050,000
Bond Proceeds - future year	-	-	35,000
Renewal and Replacement Contribution	728,196	725,000	720,000
Operating Surplus Transfer	410,702	418,859	-
Other Sources	-	-	-
Capital Funding	3,138,898	12,343,859	3,805,000
Capital Expenditures:			
Pump Station R&R – 70	158,578	215,000	100,000
Pump Station Capital Program – 420	2,000,000	1,200,000	3,050,000
CSO Program R&R – 131	105,627	200,000	20,000
East End Treatment Facility R&R – 409	341,206	500,128	485,000
East End Treatment Facility Capital Program – 21		10,000,000	35,000
Peaks Island R&R – 423	304,127	235,000	185,000
Peaks Island Capital Program – 118	6,728		
Laboratory – 95			
SCADA / Process Control Program – 177	62,661	93,116	60,000
Capital Expenditures	2,978,927	12,443,244	3,935,000
End of Year Fund Balance	2,562,558	2,463,172	2,333,172

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:

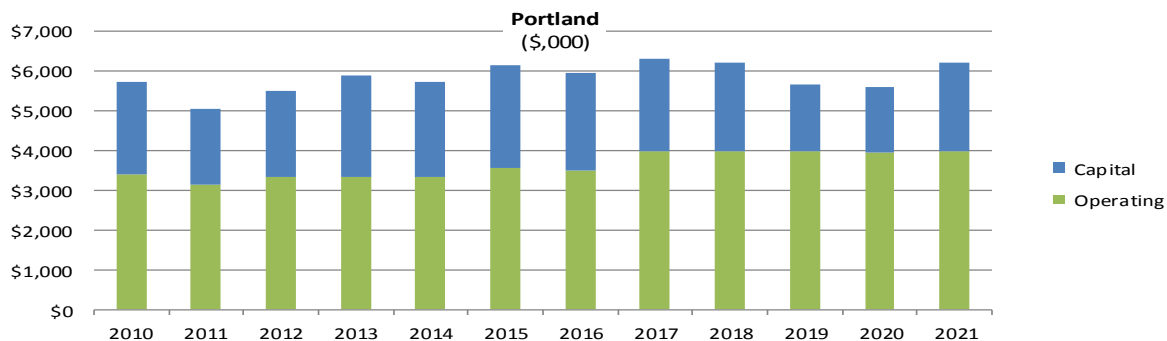
The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5% per year and pension contribution increase 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new debt assumed a 20-year life at 3%). Significant projects include the completion of the aeration system upgrade at the East end plant and Fore River Pump Station upgrade.

Summary

Assessment is projected to increase to \$13,414,6797 by 2021. Operating Reserves balance and debt ratios are expected to be better than target. Capital Reserve balance is expected to be below target.

Reserve Fund Balances



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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Portland	19%	18%	19%	21%	24%	24%	24%	23%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Portland	1.63	1.64	1.40	1.33	1.28	1.26	1.25	1.27

Projections for Rate-Making Purposes (continued)

Operating Fund:

Wastewater Portland	2017	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected	Projected
Assessment Income	\$11,841,972	\$12,457,755	\$12,831,488	\$13,216,433	\$13,414,679
Other Income	140,000	140,000	140,000	140,000	140,000
Interest Income	43,909	43,909	43,909	43,909	43,909
Total Revenue	12,025,881	12,641,664	13,015,397	13,400,342	13,598,588
Expense:					
Biosolids Disposal	1,094,386	1,116,274	1,155,344	1,195,781	1,237,633
Salaries/Wages	1,151,367	1,180,151	1,215,556	1,252,023	1,289,584
Employee Benefits	579,216	596,592	614,490	632,925	651,913
Purchased Power	1,093,267	1,115,132	1,154,162	1,194,558	1,236,368
Chemicals	509,568	519,759	537,951	556,779	576,266
Contracted Srvs	610,548	622,759	644,556	667,115	690,464
Heat/Fuel Oil	108,960	111,139	115,029	119,055	123,222
Materials/Supplies	282,559	288,210	298,297	308,737	319,543
Transportation	93,866	95,743	99,094	102,562	106,152
Tele/Oth Utilities	110,096	112,298	116,228	120,296	124,506
Insurance	26,247	26,772	27,709	28,679	29,683
Other Expense	16,950	17,289	17,894	18,520	19,168
Support Services:					
Administration	1,375,975	1,403,495	1,431,565	1,460,196	1,489,400
Wastewater Services	794,378	810,266	826,471	843,000	859,860
Engineering Services	483,536	493,207	503,071	513,132	523,395
Environmental Services	255,122	260,224	265,428	270,737	276,152
Water Services	33,666	34,339	35,026	35,727	36,442
Capital:					
Debt Service	2,553,972	2,972,816	3,129,966	3,242,271	3,142,792
Renewal & Replacement	852,202	852,202	852,202	852,202	852,202
Total Expense	12,025,881	12,628,667	13,040,039	13,414,295	13,584,745
Annual Surplus (Deficit)	0	12,997	-24,642	-13,953	13,844
Carryforward Surplus	3,983,753	3,983,753	3,996,750	3,972,108	3,958,155
Period Ending Surplus	3,983,753	3,996,750	3,972,108	3,958,155	3,971,999
Target	3,006,470	3,157,167	3,260,010	3,353,574	3,396,186
Above/(Below) Target	\$977,283	\$839,583	\$712,098	\$604,581	\$575,812

Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$2,988,446

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2017	2,463,172	720,000	3,085,000	3,935,000	2,333,172
2018	2,333,172	720,000	1,000,000	1,840,000	2,213,172
2019	2,213,172	720,000	2,750,000	4,014,000	1,669,172
2020	1,669,172	720,000	0	775,000	1,614,172
2021	1,614,172	720,000	1,800,000	1,925,000	2,209,172

Storm Water Fee

The City of Portland implemented a storm water fee effective January 1, 2016. Both residential and commercial properties will pay the same rate - \$6.00 per month per 1,200 square feet of impervious area (see figure 1). The City will bill the customers directly. The City has requested the District reduce the amount we bill customers for sewer from \$8.81 to \$8.20 in 2016 (see figure 2).

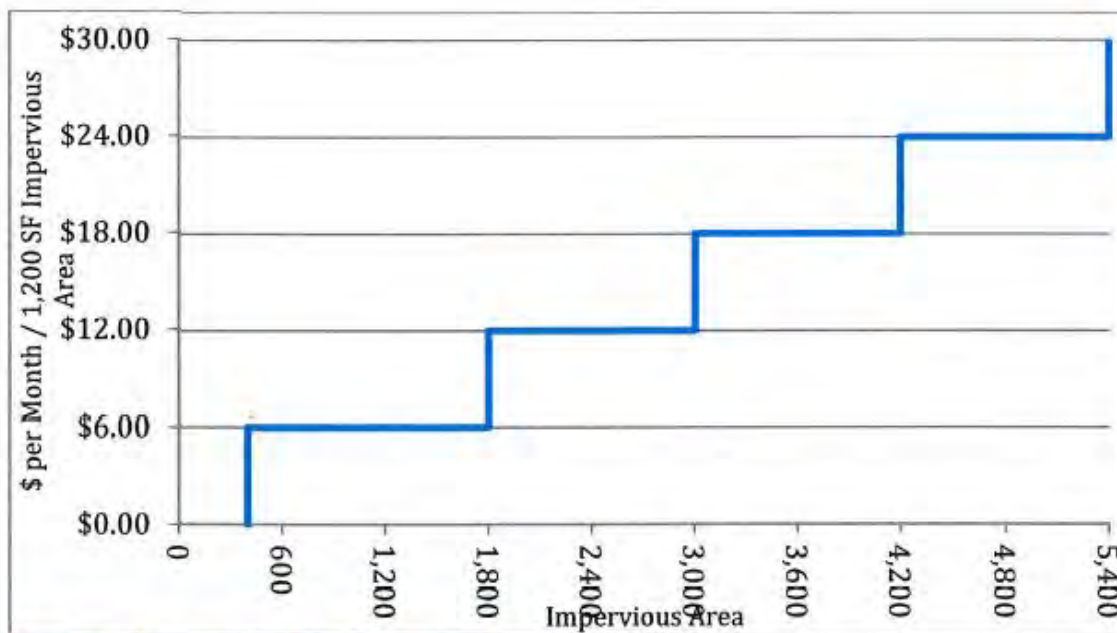


Figure 1: Stormwater Service Charge Rate

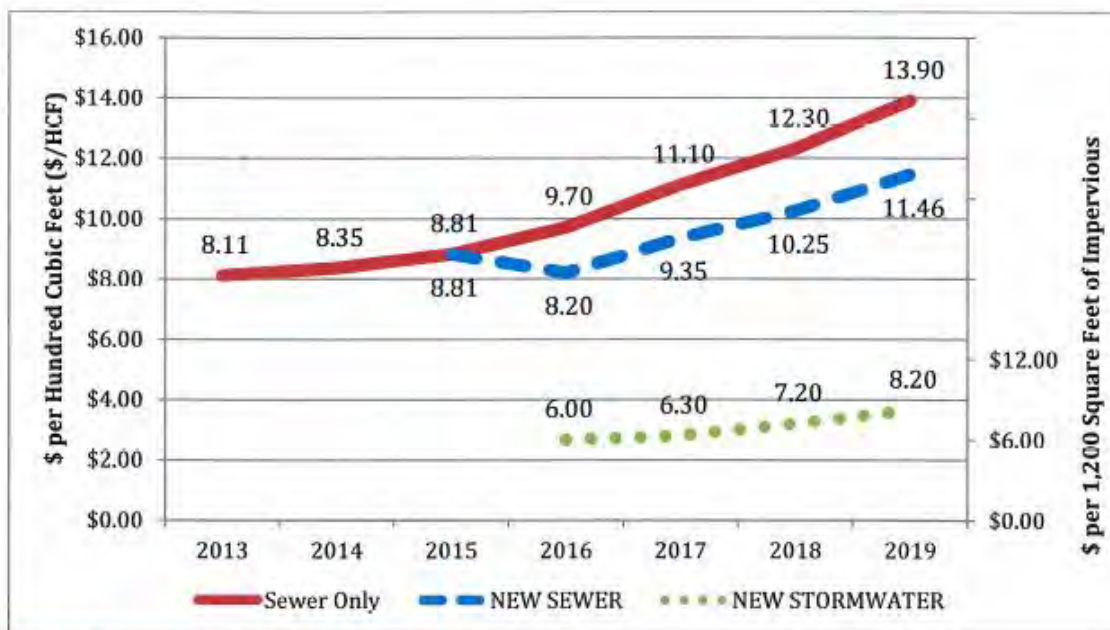
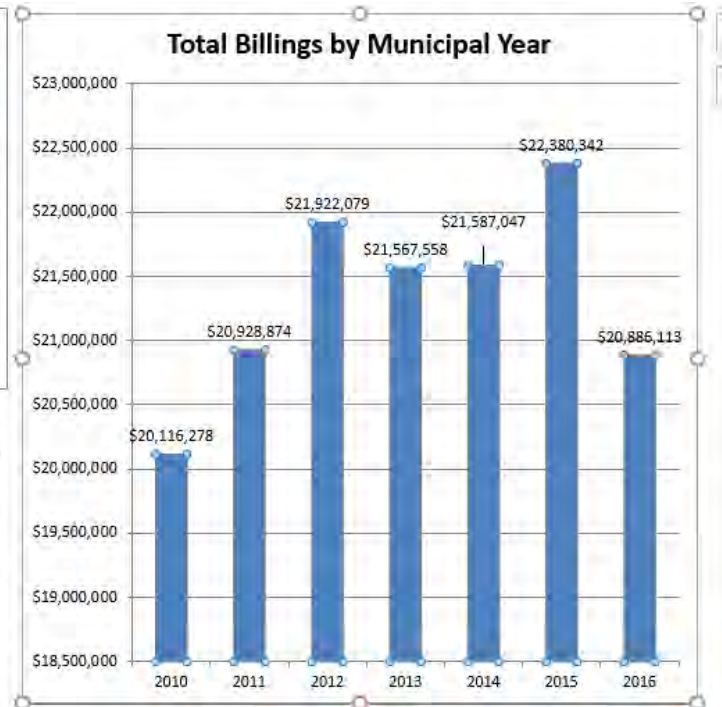
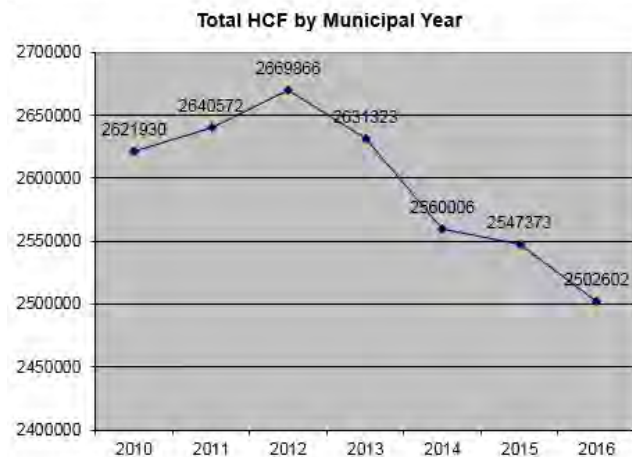
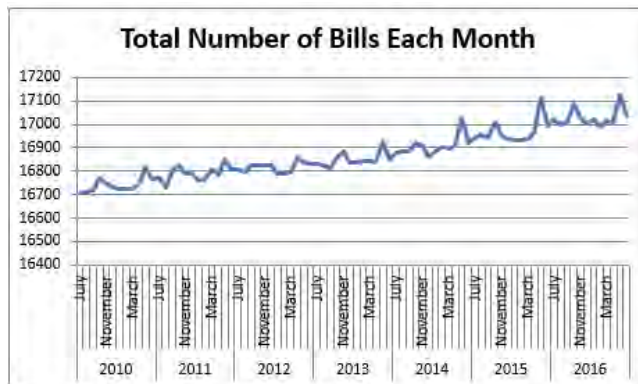


Figure 2: Projected Sewer Rate and Stormwater Rate.

Graphs are from City of Portland's Stormwater Service Charge Program report, August 2014.

Sewer Billing Statistics

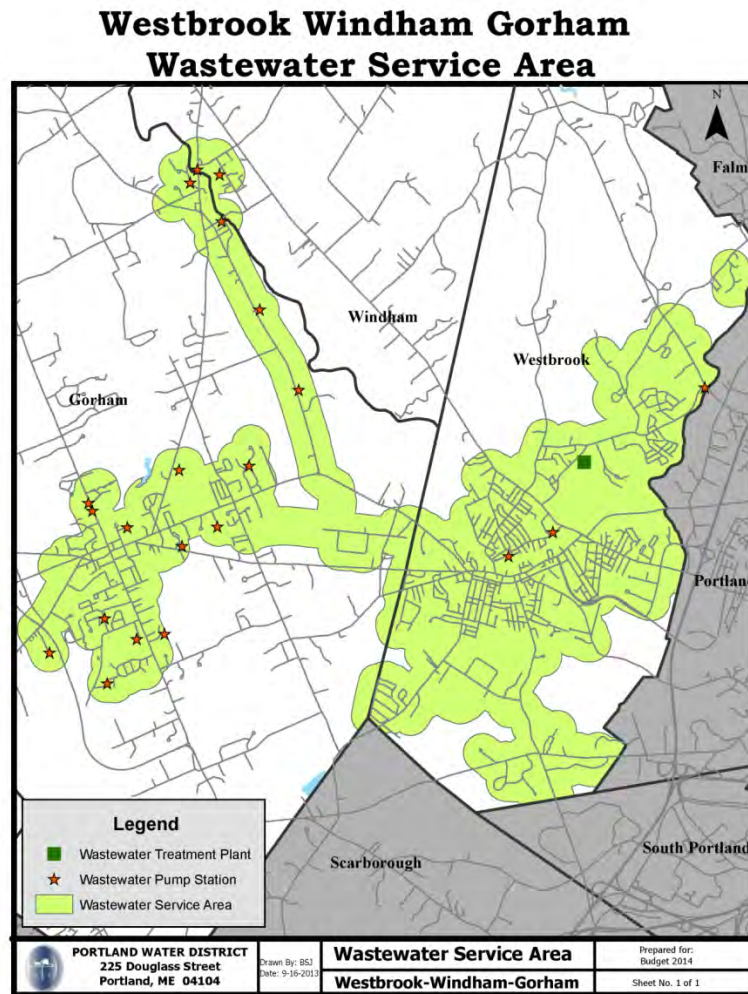
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly. The total billing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



Fund: Wastewater - Westbrook

Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system-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
\$4,291,935 on 4,510
Customers (avg.
\$76.30/month)

Fund: Wastewater - Westbrook

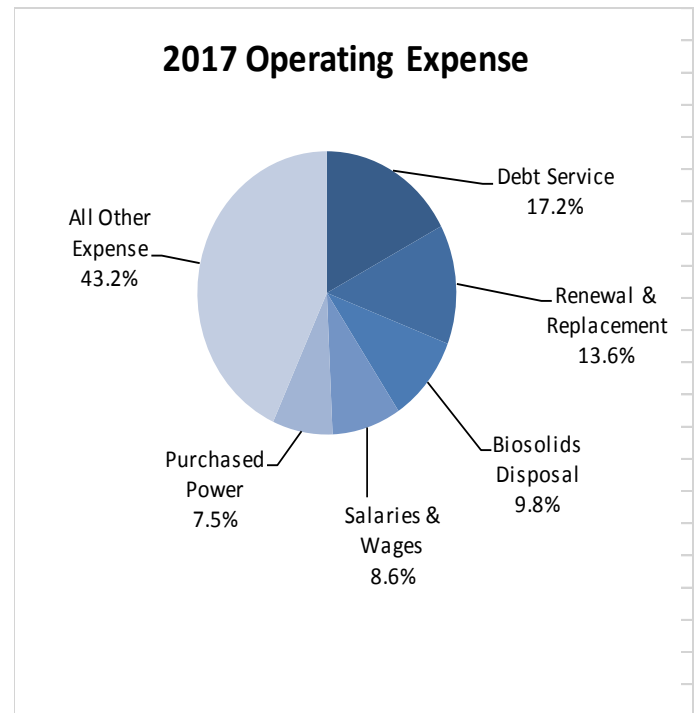
2017 Financial Summary

No increase in the city's assessment is proposed (\$2,533,176).

The proposed 2017 Operating Expense and Capital budgets are \$2,706,664 and \$2,321,600 respectively.

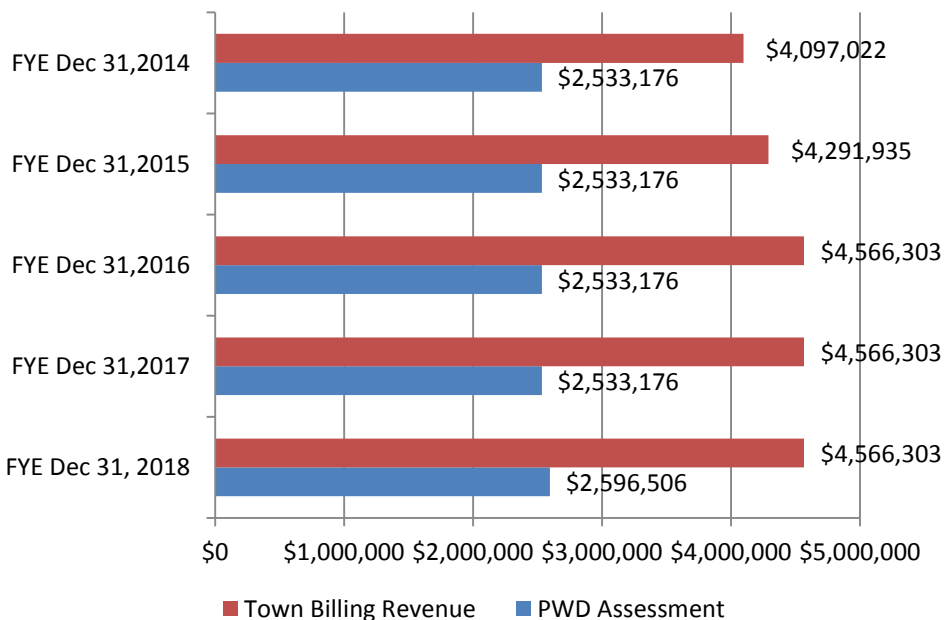
The Operating Expense budget is \$61,512 lower (2.2%) than the previous year. Departmental Expense decreased by \$8,483 or 0.5%, Debt Service dropped 7.4% to \$377,652 while Renewal & Replacement (direct and indirect) funding decreased \$30,752 to \$407,982.

The major capital project in 2017 includes Dana Court sewer construction as well as the completion of sludge dewatering upgrades.



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 is the 12 months ending Sep 30, 2016

- Rates Assumed:
Effective Base/Per HCF
Date:

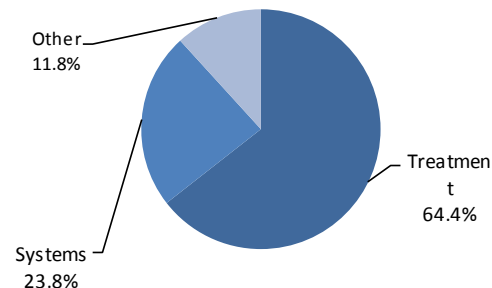
Jan 2013 \$11.13/\$6.13

2017 Operating Expense Highlights

Salaries/Wages – The expense decrease of 2.5% (\$6,145) has resulted in a budget amount of \$238,704. District labor rates increased an average of 2.5% while hours for this fund declined 4.7% in large part due to lower flows from Westbrook. A total of 9,330 hours (4.5 full time equivalents) were budgeted for 2017.

Employee Benefits – Benefits, which are charged as a percentage of regular wages, decreased 2.2% (\$2,775) to a total of \$125,392. The benefit rate increased 0.7% due to increases in pension costs.

2017 Labor Hours Distribution



Biosolids Disposal – The budget assumed a net increase in the costs of disposal at the Westbrook Regional WWTF of 1.2%. However, due to a decrease in flows, Westbrook's share of treatment costs decreased from 82.0% in 2016 to 80.25% in 2017. The result was a 1.0% (\$2,611) increase in expense.

Contracted Services – This expense is down \$6,333 (4.7%). Majority of decrease due to lower laboratory analysis costs, last year required additional testing as it was the last year of the plant's license.

Heat/Fuel Oil – The decrease, of \$5,386 or 24.1%, was due to the large drop in the contracted cost per gallon of heating oil and the lower flows for Westbrook noted above.

Purchased Power – The budget for power is expected to increase by 12.7% or \$23,401. This increase was due to increases in rates for both medium and small accounts. Those increases were somewhat offset by the decrease in Westbrook's flow percentage.

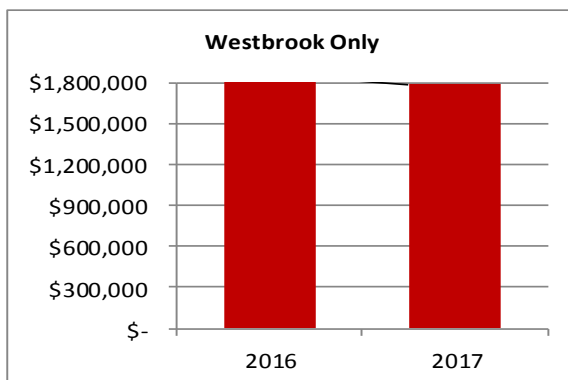
Support Services – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services decreased \$9,001 or 1.3%. The increase in Environmental Services, due changes in the work done in the wastewater laboratory that increased overhead costs for this fund, were more than offset by reductions in Water Services (due to reductions in large meter testing) and Wastewater Services (due to lower labor costs at the treatment plant).

Debt Service – The annual principal and interest payments on bonds issued to finance capital projects, this item decreased 4.5% (\$22,275).

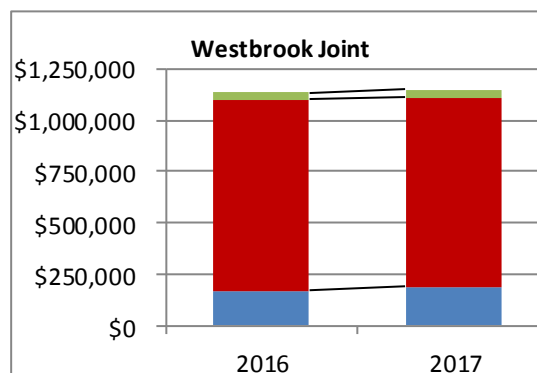
Renewal & Replacement – Dollars put aside to fund capital projects, the 2017 contribution is \$407,982.

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$2,533,176	\$1,266,588	\$2,533,176	\$2,533,176	\$0	0.0%
Interest Income	21,153	20,444	21,356	32,488	11,132	52.1%
Other Income	<u>140,928</u>	<u>28,960</u>	<u>128,900</u>	<u>141,000</u>	<u>12,100</u>	<u>9.4%</u>
Total Revenue	2,695,257	1,315,992	2,683,432	2,706,664	23,232	0.9%
Salaries & Wages	243,554	111,167	244,849	238,704	-6,145	-2.5%
Employee Benefits	119,582	57,866	128,167	125,392	-2,775	-2.2%
Biosolids Disposal	283,227	154,738	274,691	272,080	-2,611	-1.0%
Chemicals	53,348	29,661	58,484	57,576	-908	-1.6%
Contracted Services	86,142	48,674	133,801	127,468	-6,333	-4.7%
Deferred Cost W/O	18,602	6,662	14,400	14,400	0	0.0%
Heat/Fuel Oil	23,820	13,403	22,330	16,944	-5,386	-24.1%
Insurance	6,051	2,971	5,930	5,864	-66	-1.1%
Materials & Supplies	91,559	16,060	40,477	40,652	175	0.4%
Other Expense	5,309	3,946	4,517	4,383	-134	-3.0%
Purchased Power	182,751	101,326	184,683	208,084	23,401	12.7%
Tele/Other Utilities	10,654	6,959	14,332	13,817	-515	-3.6%
Transportation	11,167	6,760	11,449	13,264	1,815	15.9%
SS - Administration	289,484	154,527	315,293	319,281	3,988	1.3%
SS - Engineering Services	57,151	27,960	99,520	99,970	450	0.5%
SS - Environmental Services	86,820	44,019	95,200	101,242	6,042	6.3%
SS - Wastewater Services	172,185	96,445	174,451	155,371	-19,080	-10.9%
SS - Water Services	<u>4,720</u>	<u>3,015</u>	<u>8,425</u>	<u>8,024</u>	<u>-401</u>	<u>-4.8%</u>
Operating Expense	1,746,126	886,159	1,830,999	1,822,516	-8,483	-0.5%
Debt Service	389,896	243,622	498,441	476,166	-22,275	-4.5%
Renewal & Replacement - Direct	407,904	203,952	407,904	377,652	-30,252	-7.4%
Renewal & Replace - Indirect	<u>26,822</u>	<u>15,416</u>	<u>30,832</u>	<u>30,330</u>	<u>-502</u>	<u>-1.6%</u>
Total Expense	2,570,748	1,349,149	2,768,176	2,706,664	-61,512	-2.2%
Current Year Surplus (Deficit)	124,509	-33,157	-84,744	0		
Transfer to R&R	-683,921	0	0	0		
Prior Year Surplus	<u>1,404,156</u>	<u>844,744</u>	<u>1,495,024</u>	<u>859,410</u>		
Accumulated Surplus	844,744	811,587	1,410,280	859,410		

Note: In the graphs below Westbrook's expenses are in red.



Westbrook Only – Westbrook Only expenses were down \$51.8k (2.8%).

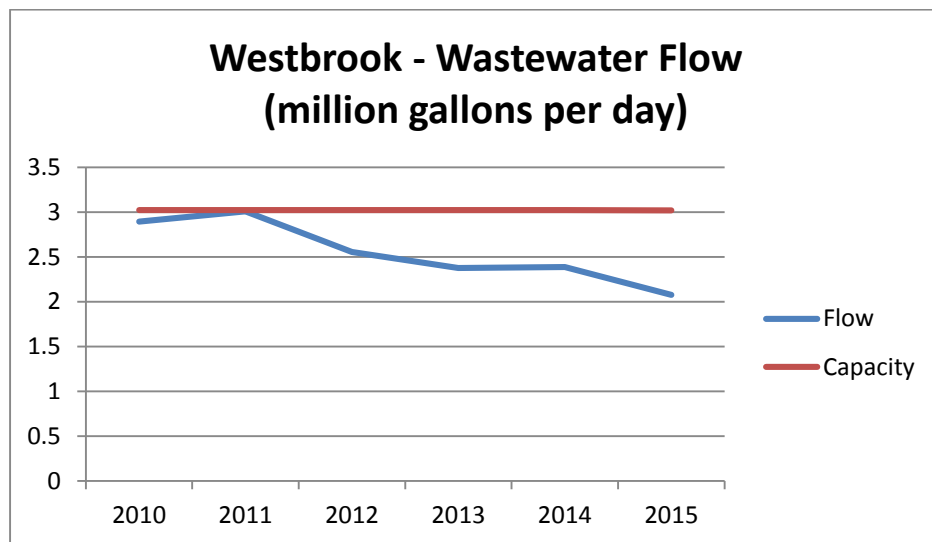


Westbrook JT – Up 1.1%, Westbrook % down (82.0% to 80.25%), Westbrook share down \$9.7k.

Operation Summary

Wastewater Treatment: The wastewater generated in the City of Westbrook is pumped to the Westbrook/Gorham/Windham Regional WWTF on Park Road. Flows from the Little Falls section of Gorham and the Town of Windham, including the Maine Correctional Center, are conveyed to this facility. The table below depicts flows from each contributing community. The chart illustrates capacity used for each community and total plant capacity being used based on the treatment plant capacity of 4.54 MGD.

Municipality (Design Flow)	2015 Flow (gallons per day)	% of 2015 WWTF Flow	Reserved Capacity (gallons per day)	% of Capacity Used
Westbrook (66.6%)	2,075,890	81.7 %	3,023,640	68.7 %
Gorham (30.8%)	386,082	15.2 %	1,398,320	33.7%
Windham (2.6%)	77,918	3.1 %	118,040	66 %
Total Plant Flow	2,539,890		4,540,000	55.9 %



Various projects at this facility, which began operation in 1979, have been completed to maintain operational efficiency. The following tables depict some of the key parameters that are monitored at the facility.

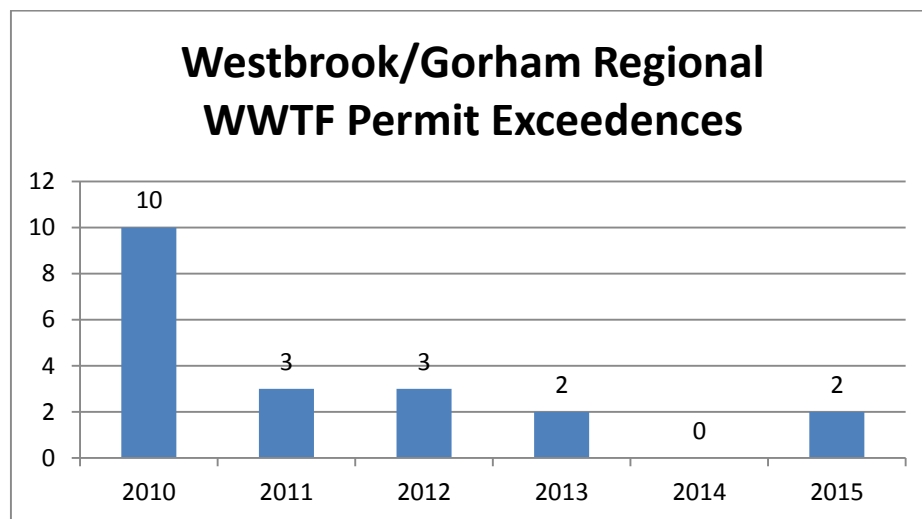
WGWTF Parameter	DEP Limit	2015 Facility Average
Biosolids Removed (wet tons/month)	N/A	433 wet ton/month

Operation Summary (continued)

Effluent Permit Requirements:

Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 96% of the BOD; well above the required 85% removal.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater. The treatment plant removed 96% 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.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.

The current Discharge Permit for the Westbrook/Gorham Regional facility will expire on March 5, 2017. The renewal process will begin in the later part of 2016. The permit renewal may include a review of effluent phosphorus and nitrogen levels and possible permit limits for these nutrients. A 2014 study of the facility identified a range of projects that might be required, with the ultimate scope and cost dependent upon how stringent DEP makes any effluent permit limits.



Wastewater Conveyance – interceptors and pumping stations

Parameter	2016 Actual to Oct	201 Projected
Preventative Work Orders	59	50
Corrective Work Orders	19	20
Wet wells cleaned	1	3
Debris removed (tons)	1.6	3
Dry Weather Overflows	0	0

Operation Summary (continued)

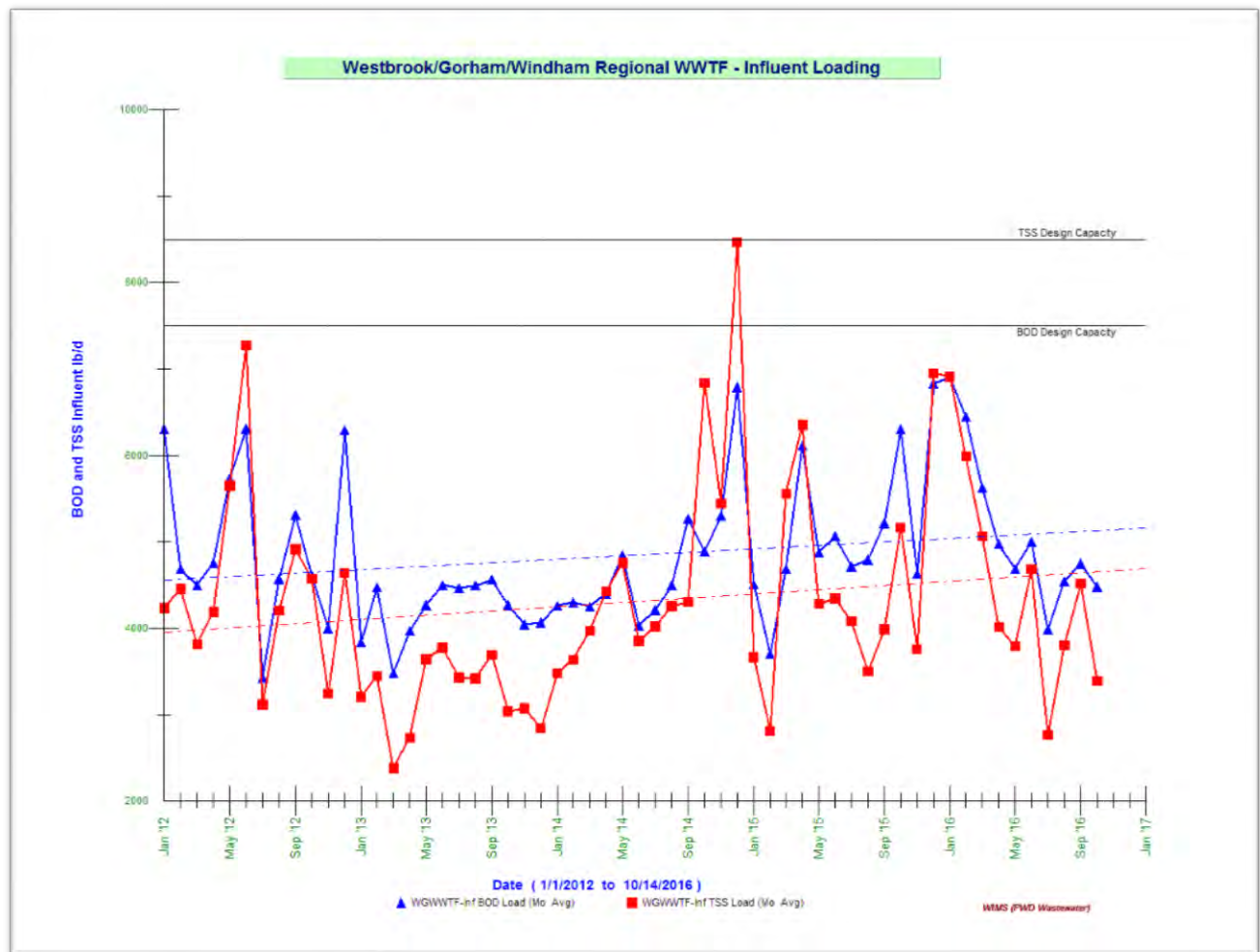
2016 Other Highlights

- CSO monitoring continues at the Westbrook CSO outfalls.
- A major PWD CSO project was completed in the Dana Ct. area. The interceptor and force main were replaced with larger pipe to increase the flow capacity. PWD continues to meet its obligations under the CSO Long Term Control Plan, which also outlines the city's obligations. In 2016, the Department of Environmental protection issued a Consent Decree for delays in the completion of required CSO related projects.
- The controls upgrade has improved the operation and monitoring of the treatment facility. These upgrades, followed by the installation of an effluent residual chlorine meter, have eliminated the need to regularly visit the treatment plant on weekends.
- The aeration system was evaluated in 2015. It meets the current needs, but will require replacement in the future as loadings to the plant increase or if stringent effluent phosphorus limits are included in future permits.
- Through a cooperative effort with the Engineering Services, all the equipment at the treatment plant was reviewed and the information in the asset management system was updated. Staff is working to create a preventative maintenance program for each of the assets identified.
- Dewatering equipment trials were completed in 2015 and will serve as the basis for the design of a 2016 upgrade. The new equipment will likely be installed in 2017.

2017 Work Plan

- Support of the City of Westbrook's ongoing CSO Long-Term Control Plan (LTCP) will continue based on the draft LTCP plan submitted to Maine Department of Environmental Protection. The 5-year update to the plan was submitted to MEDEP in December 2014 and approved in August 2016.
- Preventative maintenance will continue to be the focus for operations personal during 2017.
- The sludge dewatering system will be upgraded in 2017. The upgrade will replace aging equipment, increase throughput capacity, and increase the consistency and solids content of hauled sludge.
- The Dana Ct. Pump Station design will continue into 2017. This project will ultimately replace pumps and aging equipment and increase the peak capacity of the pump station to help manage wet weather conditions.

Operation Summary (continued)



The graph above shows the influent BOD and TSS loadings to the Westbrook Treatment plant over the past few years. As the general trend indicates, the loadings have increased over time. As the pollutant loading to the treatment plant increases and approach the design capacity, operational issues occur, or as the system ages beyond its useful life, the aeration system upgrade will become necessary. The aeration system was evaluated in a study completed in 2015. Future permit requirements, particularly any phosphorus discharge limits imposed in future effluent permits, will dictate the scope and cost of the project. The Capital Improvement Plan includes a possible aeration project with a cost of up to \$6 million.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. Capital project expenditures are financed by issuance of bonds or distribution from the renewal and replacement (R&R) fund. Wastewater bonds are usually issued through the Maine Municipal Bond Bank and utilize the state revolving loan fund (SRF) for eligible projects, which provides a 2% below market interest rate. The renewal and replacement fund is appropriated \$364,412 from the annual assessment in 2017. The planned projects are listed below with a more detailed description in the CIP section.

Regional Treatment Plant Capital – 167: The Westbrook Treatment Facility's sludge dewatering upgrades (\$1,000,000) will be completed and bonded in 2017. Westbrook's prorated share is \$666,000. This is a 2016 project.

Westbrook CSO Program R&R – 29: Dana Court construction (\$2,220,000), Warren Ave and Dunn Street design (\$20,000) will be part of a 2018 bond.

Westbrook only System Projects R&R – 411: Routine and equipment renewal and replacements (\$10,000) will be financed through the renewal and replacement fund. Westbrook pays 100% of the Westbrook only projects.

Regional Treatment Plant R&R – 416: Routine and equipment renewal and replacements (\$50,000) as well as security upgrades (\$50,000) will be financed through the renewal and replacement fund. Westbrook will pay a prorated share of the costs (\$66,600).

Capital Fund:	2015 Actual	2016 Projected	2017 Budget
Beginning of Year Fund Balance	\$1,655,997	\$1,984,405	\$2,807,781
Source of Funds:			
2017 Bond Proceeds, 2016 CIP	-	666,000	-
Bond Proceeds - current year	1,000,000	-	2,220,000
Renewal and Replacement	407,904	407,904	377,652
Operating Surplus Transfer	97,929	683,921	-
Capital Funding	1,505,833	1,757,825	2,597,652
Capital Expenditures:			
SCADA/ Process Controls R&R (prorated) - 177	-	-	-
Westbrook CSO program R&R - 29	1,041,869	218,000	2,245,000
Treatment Plant Capital Program (prorated) – 167	120,311	666,000	-
Westbrook only System Projects R&R - 411	-	-	10,000
Treatment Plant R&R (prorated) - 416	15,246	50,450	66,600
Capital Expenditures:	1,177,425	934,450	2,321,600
End of Year Fund Balance	\$1,984,405	\$2,807,781	\$3,083,833

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:

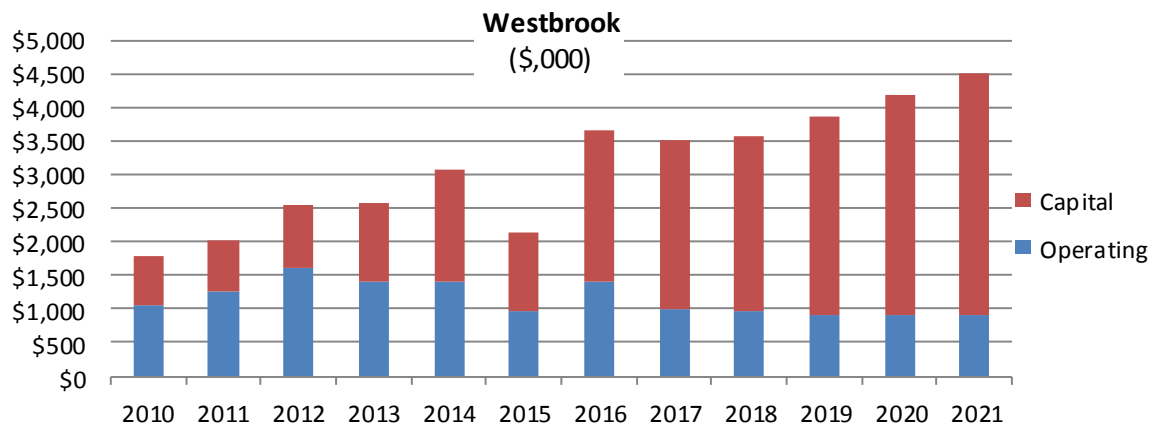
The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5 % per year and pension contribution increase 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new debt assumed a 20-year life at 3%). Significant projects include \$2.3 million secondary clarifier upgrade at the treatment facility in 2020 and \$2.4 million combined sewer overflow projects.

Summary

Assessment is projected to increase to \$2,948,388 by 2021. Reserve balances and debt ratios are expected to be better than target.

Reserve Fund Balances



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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Westbrook	16%	15%	18%	18%	20%	23%	22%	22%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Westbrook	2.24	2.43	1.71	1.86	1.68	1.51	1.60	1.61

Projections for Rate-Making Purposes (continued)

Operating Fund:

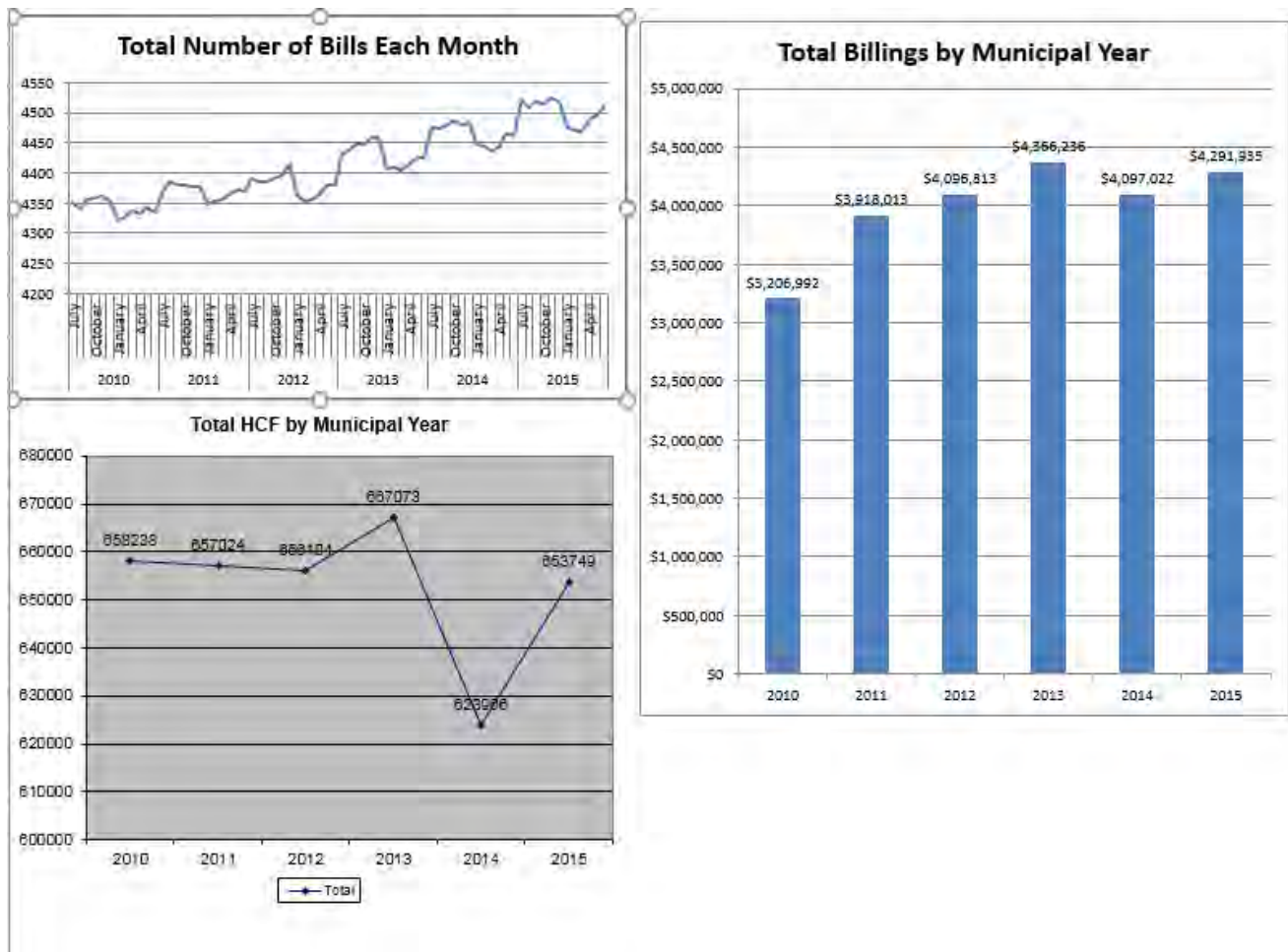
Wastewater Westbrook	2017	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected	Projected
Assessment Income	\$2,533,176	\$2,659,835	\$2,792,827	\$2,890,576	\$2,948,388
Other Income	141,000	141,000	141,000	141,000	141,000
Interest Income	32,488	32,488	32,488	32,488	32,488
Total Revenue	2,706,664	2,833,323	2,966,315	3,064,064	3,121,876
Expense:					
Contracted Svcs	127,468	130,655	135,228	139,961	144,860
Salaries/Wages	238,704	244,672	252,012	259,572	267,359
Employee Benefits	125,392	129,154	133,029	137,020	141,131
Purchased Power	208,084	208,084	215,367	222,905	230,707
Biosolids Disposal	272,080	278,882	288,643	298,746	309,202
Transportation	13,264	13,596	14,072	14,565	15,075
Chemicals	57,576	59,015	61,081	63,219	65,432
Materials/Supplies	40,652	41,668	43,126	44,635	46,197
Heat/Fuel Oil	16,944	17,368	17,976	18,605	19,256
Tele/Oth Utilities	13,817	14,162	14,658	15,171	15,702
Insurance	5,864	6,011	6,221	6,439	6,664
Other Expense	18,783	18,893	19,050	19,213	19,381
Administration	319,281	327,263	335,445	343,831	352,427
Engineering Services	99,970	102,469	105,031	107,657	110,348
Environmental Services	101,242	103,773	106,367	109,026	111,752
Wastewater Services	155,371	159,255	163,236	167,317	171,500
Water Services	8,024	8,225	8,431	8,642	8,858
Capital:					
Debt Service	476,166	577,432	691,849	678,084	672,464
Renewal & Replacement	407,982	407,982	407,982	407,982	407,982
Total Expense	2,706,664	2,848,559	3,018,804	3,062,590	3,116,297
Annual Surplus (Deficit)	0	-15,236	-52,489	1,475	5,579
Transfer to R&R					
Carryforward Surplus	983,919	983,919	968,683	916,194	917,669
Period Ending Surplus	983,919	968,683	916,194	917,669	923,248
Target	676,666	712,140	754,701	765,647	779,074
Above Target	\$307,253	\$256,543	\$161,493	\$152,021	\$144,173

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

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2017	2,250,744	\$377,652	2,220,000	2,321,600	2,526,796
2018	2,526,796	\$377,652	0	293,250	2,611,198
2019	2,611,198	\$377,652	166,500	212,464	2,942,886
2020	2,942,886	\$377,652	1,531,800	1,598,410	3,253,928
2021	3,253,928	\$377,652	300,000	343,300	3,588,280

Sewer Billing Statistics

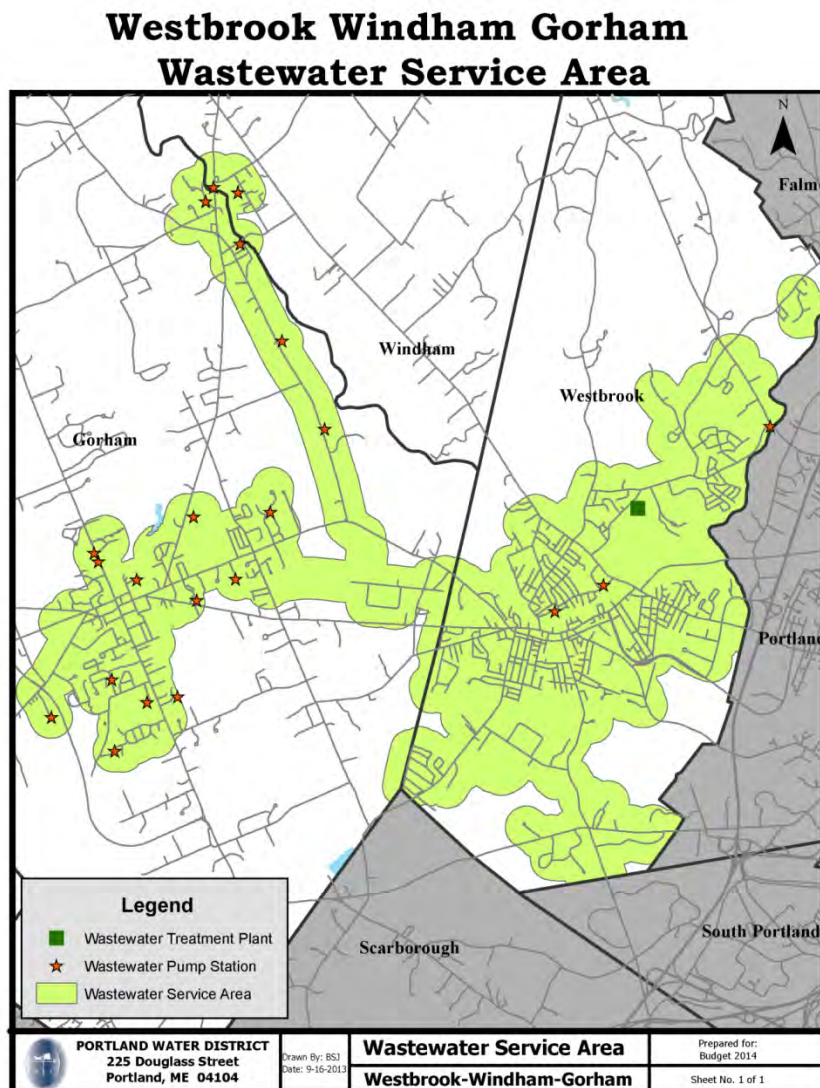
The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District's water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.



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
\$326,232 with 54
Customers

Fund: Wastewater - Windham

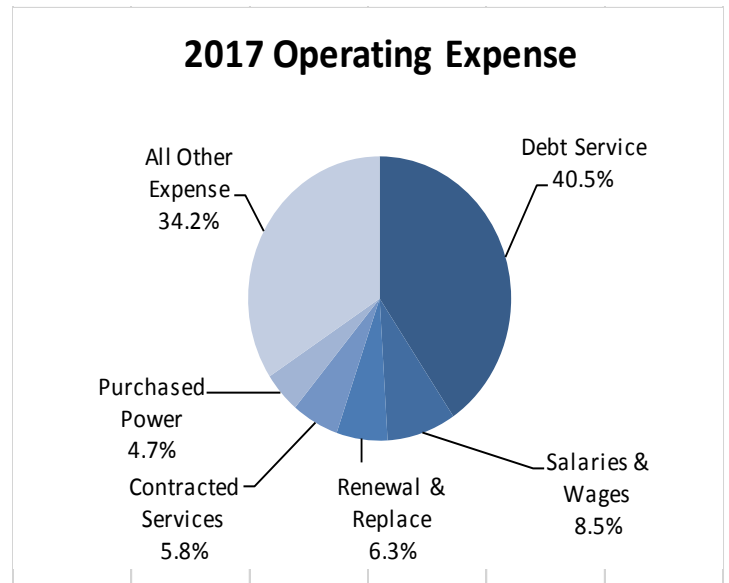
2017 Financial Summary

The town's proposed assessment of \$360,528 is a 2.5% increase and just below last year's forecast.

The proposed 2017 Operating Expense and Capital budgets are \$366,468 and \$128,350, respectively.

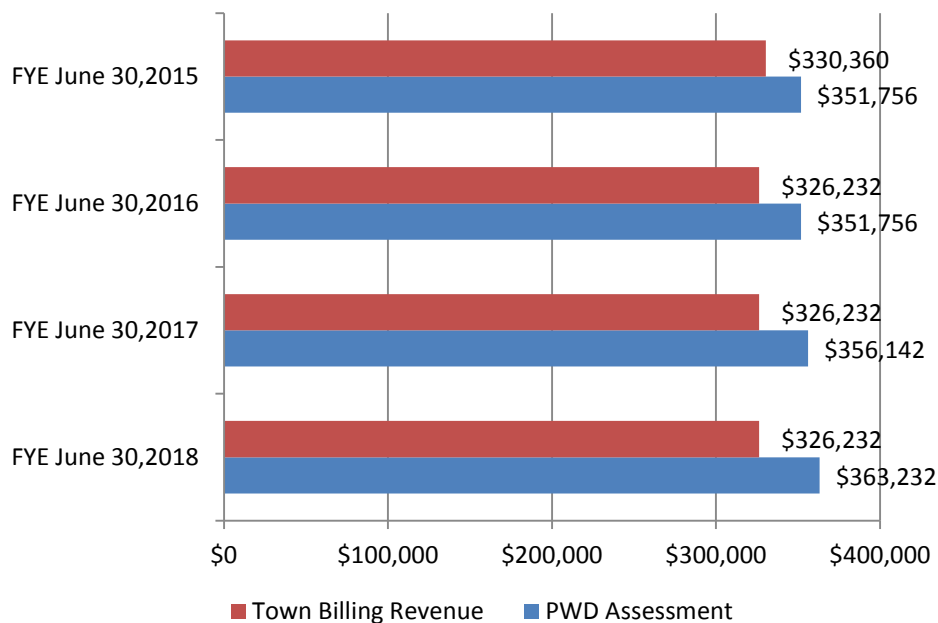
Operating Expense was up 0.1%. Windham flows rose at both the Westbrook Region WWTF (3.0% to 3.25%) and in Little Falls (77.5% to 78.5%). Costs were relatively flat the WWTF while Little Falls costs rose 9.7%.

The Capital projects in 2017 include the continuation of upgrades at the regional wastewater treatment plant of the Sludge Dewatering upgrades. This work will be funded by renewal and replacement funds and bonds.



Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is year end. 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, 2016

- Rates Assumed:

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

No change since 4/1/2009

2017 Operating Expense Highlights

Salaries/Wages – Wages were budgeted to increase 6.8% (\$1,985). District labor rates increased an average of 2.5% (due to an increase in the amount of time required to regularly inspect the siphon inlet structure to prevent overflows) but this was offset by the 3.8% (46 hour) increase in hours budgeted. A total of 1,261 hours (0.61 full time equivalents) were budgeted for 2017.

Employee Benefits – Benefits, which are charged as a percentage of regular wages, increased 7.6% (\$1,157) to a total of \$16,330. The benefit rate increased 0.7% due to increases in pension costs.

Biosolids Disposal – The budget assumed a net increase in the costs of disposal at the Westbrook/Gorham/Windham Regional WWTF of 1.2%. However, due to an increase in flows, Windham's share of treatment costs increased from 3.00% in 2016 to 3.25% in 2017. The result was a 9.6% (\$969) increase in expense.

Contracted Services – The budget for this item increased \$1,458 (7.4%) primarily due to increases in maintenance costs related to flow meters.

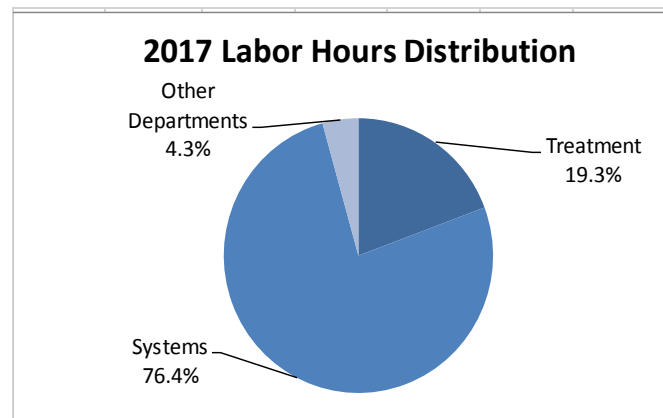
Materials & Supplies – This item is up \$2,920; the majority of increase is for materials related to odor control efforts at pump station.

Purchased Power – The budget for power is expected to increase by 11.9% or \$1,817 to \$17,117. This increase was due to increases in rates for both medium and small accounts. Those increases were compounded by the increase in Windham's flow percentage.

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 \$4,423 or 6.6%. The \$936 (34.3%) increase in Environmental Services was due the increase in the percentage of Windham's flow at the treatment plant from 3.00 % to 3.25%. Direct labor hours for Windham, on which Wastewater is based, increased from 1.77% to 1.86%. Net totals expenses, on which Administration is based, increased from 0.91% to 0.92%.

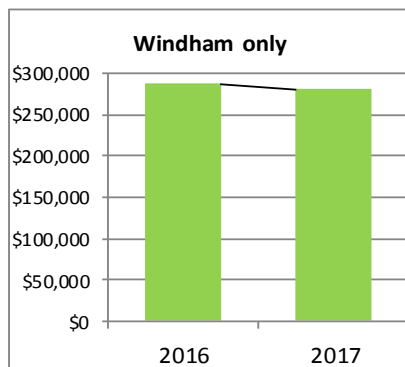
Debt Service - The annual principal and interest payments on bonds issued to finance capital projects. This item decreased 1.3% (\$1,881) as older bond issues were retired.

Renewal & Replacement - Dollars put aside to fund capital projects. A contribution of \$22,962 will be made in 2017.

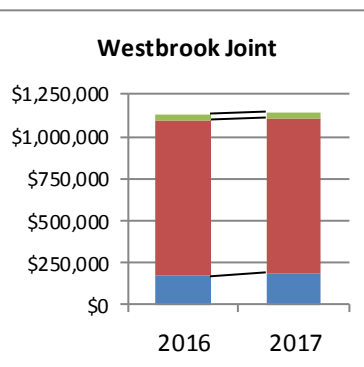


	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$351,756	\$175,878	\$351,756	\$360,528	\$8,772	2.5%
Interest Income	1,907	1,651	1,972	3,240	1,268	64.3%
Other Income	<u>2,682</u>	<u>846</u>	<u>3,200</u>	<u>2,700</u>	<u>-500</u>	<u>-15.6%</u>
Total Revenue	356,345	178,375	356,928	366,468	9,540	2.7%
Salaries & Wages	26,709	11,557	29,144	31,129	1,985	6.8%
Employee Benefits	13,349	6,070	15,173	16,330	1,157	7.6%
Biosolids Disposal	7,691	5,661	10,050	11,019	969	9.6%
Chemicals	1,441	1,078	2,127	2,317	190	8.9%
Contracted Services	16,920	5,525	19,828	21,286	1,458	7.4%
Heat/Fuel Oil	2,099	779	1,794	1,848	54	3.0%
Insurance	795	404	805	825	20	2.5%
Materials & Supplies	7,915	1,558	5,925	8,845	2,920	49.3%
Other Expense	136	143	161	172	11	6.8%
Purchased Power	14,145	8,330	15,300	17,117	1,817	11.9%
Tele/Other Utilities	256	198	453	475	22	4.9%
Transportation	10,503	4,273	12,151	12,599	448	3.7%
SS - Administration	33,727	17,415	35,278	38,005	2,727	7.7%
SS - Engineering Services	7,878	3,801	13,649	13,652	3	0.0%
SS - Environmental Services	2,039	1,266	2,732	3,668	936	34.3%
SS - Wastewater Services	14,560	8,104	14,707	15,470	763	5.2%
SS - Water Services	<u>111</u>	<u>58</u>	<u>189</u>	<u>183</u>	<u>-6</u>	<u>-3.2%</u>
Operating Expense	160,274	76,220	179,466	194,940	15,474	8.6%
Debt Service	151,956	73,002	150,447	148,566	-1,881	-1.3%
Renewal & Replacement - Direct	32,687	16,344	32,687	20,000	-12,687	-38.8%
Renewal & Replace - Indirect	<u>2,947</u>	<u>1,464</u>	<u>2,927</u>	<u>2,962</u>	<u>35</u>	<u>1.2%</u>
Total Expense	347,864	167,030	365,527	366,468	941	0.3%
Current Year Surplus (Deficit)	8,481	11,345	-8,599	0		
Transfer to R&R	-70,550	0	0	0		
Prior Year Surplus	<u>171,168</u>	<u>109,099</u>	<u>183,332</u>	<u>126,184</u>		
Accumulated Surplus	109,099	120,444	174,733	126,184		

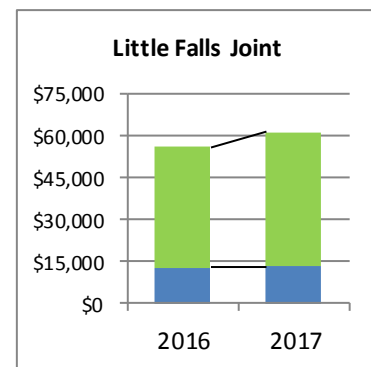
Note: In the graph's below, Windham's numbers are in green.



Windham Only – Expense down \$7.1k (2.0%).



Westbrook JT – Costs up 1.1%
Windham % up 3.0% to 3.25%,
Windham share up \$3.2k.



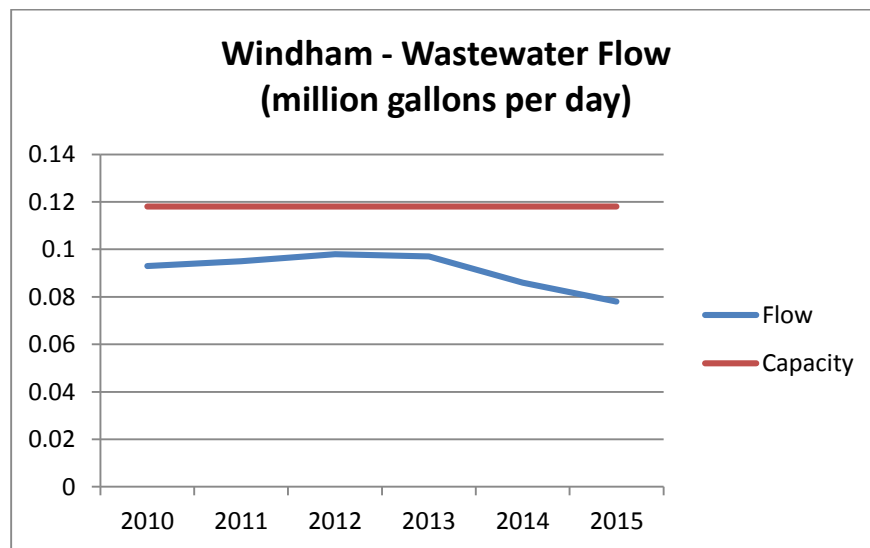
Little Falls JT – Up \$5.4k (9.7%),
Windham% up (77.5% to 78.5%),
Windham share up \$4.8k.

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	2015 Windham Flow	Westbrook WWTF Flow	% Windham Flow
Windham	77,918 gal/day	2,539,890 gal/day	3.1%
WGWWTF Capacity	Windham Capacity (2.6%)	% Capacity Used	Capacity Remaining
4,540,000 gal/day	118,040 gal/day	66%	40,122 gal/day



Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2016 Actual to Sept	2017 Projected
Preventative Work Orders	28	25
Corrective Work Orders	0	5
Wet wells cleaned	16	15
Debris removed (tons)	18.6	15
Dry Weather Overflows	1	0

Operation Summary (continued)

2016 Other Highlights

- Preventative 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 unit 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.

2017 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.
- Wet wells 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 addition of an odor control unit at the Little River Pump Station (which is jointly used by Windham and Gorham) will be completed in 2017.
- The Routine Renewal and Replacement capital account will be used to address any unanticipated equipment issues.

Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. Capital project expenditures are financed by issuance of bonds or distribution from the renewal and replacement (R&R) fund. Wastewater bonds are usually issued through the Maine Municipal Bond Bank and utilize the state revolving loan fund (SRF) for eligible projects, which provides a 2% below market interest rate. The renewal and replacement fund is appropriated \$20,000 from the annual assessment in 2017.

The planned projects are listed below with a more detailed description in the CIP section.

Gorham WW Pump Stations R&R – 60: The Little River Pump Station, located in Little Falls, repairs will come from R&R. Windham's portion is 85% of \$35,000 or \$29,750.

Regional Treatment Plant Capital – 167: A sludge dewatering upgrade for the Westbrook Treatment Facility. Windham will pay a prorated share of the costs (\$26,000). This project was previously approved in 2016.

Regional Treatment Plant R&R – 416: Routine and equipment renewal and replacements (\$50,000) as well as security upgrades (\$50,000) will be financed through the renewal and replacement fund. Windham will pay a prorated share of the costs (\$2,600).

Windham System Pumping R&R – 180 / 181: Routine and equipment renewal and replacements (\$20,000). Windham pays 100% of Windham only projects. Redesign of the Depot Street sewer for \$50,000 will be bonded.

Capital Fund:	2015 Actual	2016 Projected	2017 Budget
Beginning of Year Fund Balance	\$211,944	\$230,014	\$301,281
Source of Funds:			
Bond Proceeds - prior year			
Bond Proceeds - current year	-	-	76,000
Renewal and Replacement Contribution	32,687	32,687	20,000
Operating Surplus Transfer	27,435	70,550	-
Capital Funding	60,122	103,237	96,000
Capital Expenditures:			
Gorham Pump Station R&R (Little River and Mallison) - 60			29,750
Treatment Plant Sludge Dewatering (prorated) – 167	4,697		26,000
Treatment Plant R&R (prorated) – 416	595	1,970	2,600
Windham Systems Pumping R&R - 180	36,760	30,000	20,000
Windham Systems Pumping Capital - 181	-	-	50,000
Capital Expenditures	42,052	31,970	128,350
End of Year Fund Balance	230,014	301,281	268,931

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.

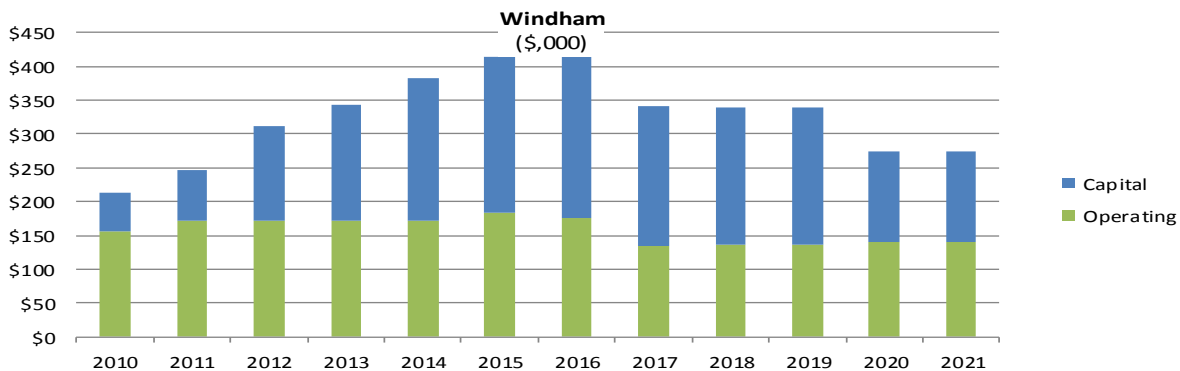
Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5 % per year and pension contribution increase 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new debt assumed a 20-year life at 3%). Significant projects include \$2.3 million secondary clarifier upgrade at the treatment facility in 2020

Summary

Assessment is projected to increase to \$377,024 by 2021, a 8%. Reserve balances are better than target balances. The percent of debt service of budget is higher than target due to financing the connection of the Little Falls area to the Westbrook Regional Treatment facility. The project was requested by the Town.



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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Windham	47%	44%	41%	41%	40%	39%	37%	37%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Windham	1.40	1.29	1.18	1.15	1.16	1.17	1.19	1.16

Projections for Rate-Making Purposes (continued)

Operating Fund:

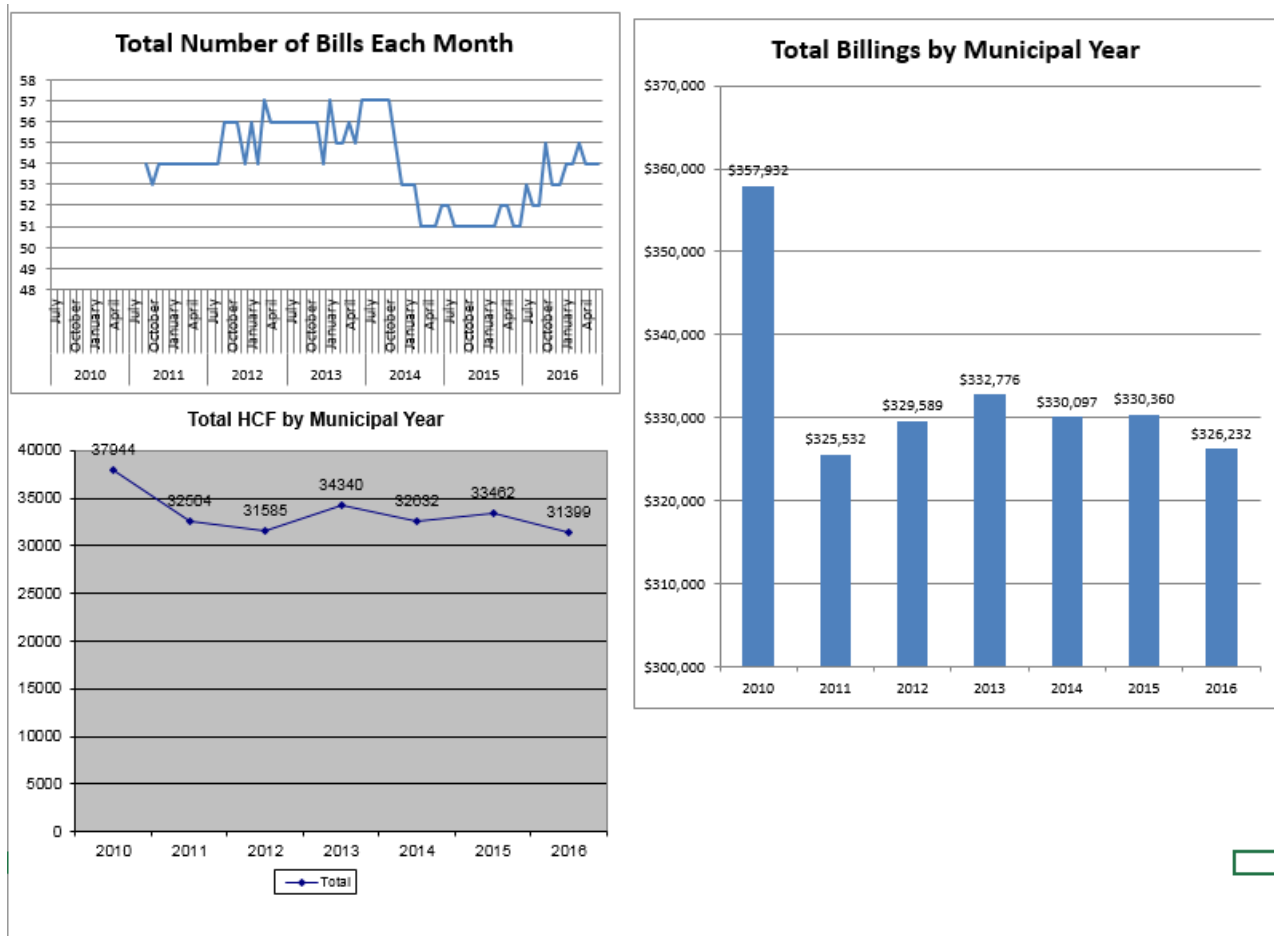
Wastewater Windham	2017	2018	2019	2020	2021
Revenue:	Budget	Projected	Projected	Projected	Projected
Assessment Income	\$360,528	\$365,936	\$369,595	\$373,291	\$377,024
Other Income	2,700	2,700	2,700	2,700	2,700
Interest Income	3,240	3,240	3,240	3,240	3,240
Total Revenue	366,468	371,876	375,535	379,231	382,964
Expense:					
Contracted Srvs	21,286	21,818	22,582	23,372	24,190
Salaries/Wages	31,129	31,907	32,864	33,850	34,866
Employee Benefits	16,330	16,820	17,325	17,845	18,380
Purchased Power	17,117	17,117	17,716	18,336	18,978
Biosolids Disposal	11,019	11,294	11,689	12,098	12,521
Transportation	12,599	12,914	13,366	13,834	14,318
Chemicals	2,317	2,375	2,458	2,544	2,633
Materials/Supplies	8,845	9,066	9,383	9,711	10,051
Heat/Fuel Oil	1,848	1,894	1,960	2,029	2,100
Tele/Oth Utilities	475	487	504	522	540
Insurance	825	846	876	907	939
Other Expense	172	176	182	188	195
Administration	38,005	38,955	39,929	40,927	41,950
Engineering Services	13,652	14,293	14,650	15,016	15,391
Environmental Services	3,668	3,760	3,854	3,950	4,049
Wastewater Services	15,470	15,857	16,253	16,659	17,075
Water Services	183	188	193	198	203
Capital:					
Debt Service	148,566	148,595	145,396	140,775	141,103
Renewal & Replacement	22,962	22,962	22,962	22,962	22,962
Total Expense	366,468	371,324	374,142	375,723	382,444
Annual Surplus (Deficit)	0	552	1,393	3,508	520
Transfer to R&R					
Carryforward Surplus	134,665	134,665	135,217	136,610	140,118
Period Ending Surplus	134,665	135,217	136,610	140,118	140,638
Target	91,617	92,831	93,536	93,931	95,611
Above Target	\$43,048	\$42,386	\$43,075	\$46,187	\$45,027

Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$90,184

Year	Beg Balance	R&R Contribution	Bond	Expenditures	End Balance
2017	239,212	20,000	76,000	128,350	206,862
2018	206,862	20,000	425,000	448,250	203,612
2019	203,612	20,000	394,000	415,404	202,208
2020	202,208	20,000	59,800	147,010	134,998
2021	134,998	20,000	0	21,300	133,698

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.



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 are 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 billed at a flat rate plus a fee based on the number of fixtures and number of units at the location.

2017 Summary

The assessment in Falmouth will increase from \$15,012 in 2016 to \$263,604 in 2017 to support the new debt service payments referenced above. The District is proposing the same assessment as last year for South Portland and a 1.4% increase (\$156) in Scarborough.

The changes to Operating Expense were: Falmouth decreasing \$742 (5.9%), Scarborough decreasing \$92 (3.8%) and South Portland decreasing \$11,889 (8.9%). Debt Service is new (at \$252,000) in Falmouth while the Debt Service expense was down \$92 and \$1,026 in Scarborough and South Portland respectively. Renewal & Replacement costs for meters was flat in 2017 with Scarborough's expense down \$24 and South Portland's up \$123.

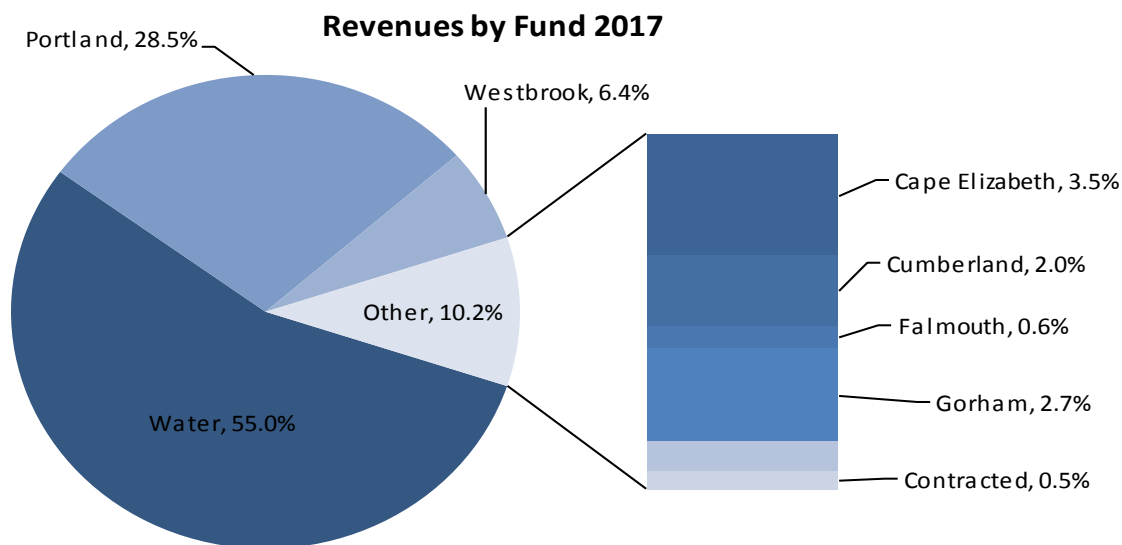
Falmouth Assessment and Scarborough and South Portland Contracted Services

Falmouth:						
	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$15,012	\$7,506	\$15,012	\$263,604	\$248,592	1656.0%
Interest Income	104	82	62	191	129	208.1%
Total Revenue	15,116	7,588	15,074	263,795	248,721	1650.0%
Operating Expense	11,557	6,404	12,537	11,795	-742	-5.9%
Debt Service	0	0	0	252,000	252,000	n/a
Total Expense	11,557	6,404	12,537	263,795	251,258	2004.1%
Current Year Surplus (Deficit)	3,559	1,184	2,537	0		
Return of Surplus	-30,000	0	0	0		
Prior Year Surplus	35,602	9,161	8,506	12,130		
Accumulated Surplus	9,161	10,345	11,043	12,130		
Scarborough:						
	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	\$10,620	\$5,412	\$10,824	\$10,980	\$156	1.4%
Interest Income	12	21	13	41	28	215.4%
Total Revenue	10,632	5,433	10,837	11,021	184	1.7%
Operating Expense	1,455	919	2,429	2,337	-92	-3.8%
Debt Service	6,234	3,355	6,234	6,142	-92	-1.5%
Renewal & Replace - Indirect	1,541	1,316	2,631	2,607	-24	-0.9%
Total Expense	9,230	5,590	11,294	11,086	-208	-1.8%
Current Year Surplus (Deficit)	1,402	-157	-457	-65		
Prior Year Surplus	3,891	5,293	4,437	6,229		
Accumulated Surplus	5,293	5,136	3,980	6,164		
South Portland:						
	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Interest Income	192,384	96,192	192,384	192,384	0	0.0%
Return of Surplus	547	465	354	921	567	160.2%
Total Revenue	192,931	96,657	192,738	193,305	567	0.3%
Operating Expense	116,244	63,473	134,118	122,229	-11,889	-8.9%
Debt Service	51,627	27,389	51,447	50,421	-1,026	-2.0%
Renewal & Replace - Indirect	12,107	9,869	19,737	19,860	123	0.6%
Total Expense	179,978	100,731	205,302	192,510	-12,792	-6.2%
Current Year Surplus (Deficit)	12,953	-4,074	-12,564	795		
Return of Surplus	-12,000	0	0	0		
Prior Year Surplus	107,424	108,377	102,559	112,128		
Accumulated Surplus	108,377	104,303	89,995	112,923		

2017 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 previous pages.

	Total	Water	Cape Eliz	Cumber	Gorham	Portland	Westbk	Windham	Falmouth/ Contract
Beg Balance	\$12,444,650	\$6,008,944	\$382,855	\$360,053	\$459,974	\$3,983,753	\$983,919	\$134,665	\$130,487
Water Revenue	22,800,978	22,800,978	-	-	-	-	-	-	-
WW Assess	18,418,704	-	1,468,692	844,584	1,106,148	11,841,972	2,533,176	360,528	263,604
Contract Billing	203,364	-	-	-	-	-	-	-	203,364
Interest Income	216,744	113,072	6,729	5,788	10,365	43,909	32,488	3,240	1,153
Other Income	616,800	317,900	-	-	15,200	140,000	141,000	2,700	-
	42,256,590	23,231,950	1,475,421	850,372	1,131,713	12,025,881	2,706,664	366,468	468,121
Depart Expense	28,770,762	15,365,338	1,160,131	808,180	663,589	8,619,707	1,822,516	194,940	136,361
Debt Service	8,595,909	4,474,269	219,252	14,195	400,926	2,553,972	476,166	148,566	308,563
Renew I & Repl	4,661,482	3,164,636	96,038	27,997	67,198	852,202	407,982	22,962	22,467
	42,028,153	23,004,243	1,475,421	850,372	1,131,713	12,025,881	2,706,664	366,468	467,391
Surplus (Deficit)	228,437	227,707	-	-	-	-	-	-	730
Xfer-Cap Resrv	(48,594)	(48,594)	-	-	-	-	-	-	-
Ending Surplus	\$12,624,493	\$6,188,057	\$382,855	\$360,053	\$459,974	\$3,983,753	\$983,919	\$134,665	\$131,217



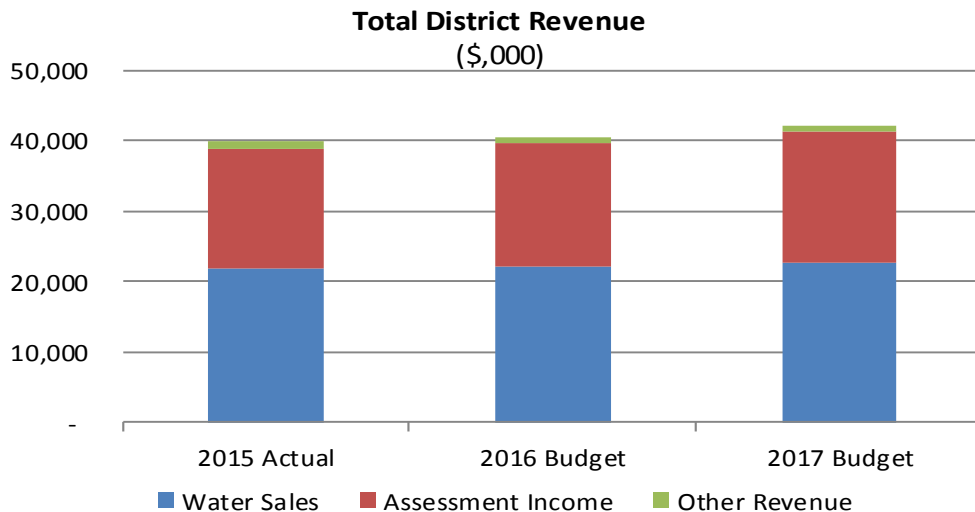
Introduction

Revenue is obtained from two major sources: payments by individual customers for water services (Water Revenue, 54.0%) and payments from municipalities for wastewater services (Wastewater Assessments, 43.6%). Water revenues in 2017 are expected to increase 2.6% over last year's budget as a result of the full year impact of the 3.7% May 1, 2016 rate increase and the proposed 1.67% rate increase to take effect in May. Wastewater Assessments increased for the Towns of Cape Elizabeth, Cumberland, Portland, Windham and Falmouth to cover estimated 2017 costs.

Contracted Billing Income (0.5% 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 (2.0% of budgeted revenue) is derived from other activities, such as interest income, cross connection fees, customer connection and activation fees, jobbing surcharge and septage haulers fees, which are further detailed in this section.

	2015 Actual	2016 Actual Jan-Jun	2016 Budget	2017 Budget	\$-Diff.	%-Diff.
Water Sales	\$21,788,861	\$10,560,238	\$22,213,173	\$22,800,978	\$587,805	2.6%
Assessment Income	17,131,296	8,754,156	17,508,312	18,418,704	910,392	5.2%
Contracted Billing Income	203,004	101,604	203,208	203,364	156	0.1%
Interest Income	119,489	112,034	108,257	216,744	108,487	100.2%
Other Income	668,274	260,634	515,970	616,800	100,830	19.5%
Total Revenues	\$39,910,924	\$19,788,666	\$40,548,920	\$42,256,590	\$1,707,670	4.2%



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	\$2.26
31 HCF	100 HCF	\$1.90
101 HCF	500 HCF	\$1.68
Greater than 500 HCF		\$0.94

- **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 assure 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 based on proportionate share of water system costs to assure water is available to fight fires.
- **Other Water Revenue** such as interest on delinquent customer balance and customer penalties.

The 2017 Budget of \$22,800,978 reflects an assumed rate adjustment averaging 1.67% effective May 1, 2017 and estimated number of customers and usage. Details on the how the estimated number of estimated number of customer and usage was determined are on subsequent pages.

Water Sales rates have been adjusted annually. Average rate adjustments of 3.7% and 3.8% were made on May 1, 2016 and 2015, 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 adjustment solely through the actions. The Board will continue to follow the same public input process before authorizing rate changes.

	2015 Actual	2016 Actual Jan-Jun	2016 Budget	2017 Budget	\$-Diff.	%-Diff.
Metered Revenue	\$19,507,816	\$9,391,758	\$19,841,639	\$20,379,107	\$537,468	2.7%
Public Fire Protection	1,270,959	650,605	1,320,614	1,352,224	31,610	2.4%
Private Fire Protection	915,884	476,047	951,920	974,647	22,727	2.4%
Other Water Revenue	94,202	41,828	99,000	95,000	(4,000)	-4.0%
Total Water Sales	\$21,788,861	\$10,560,238	\$22,213,173	\$22,800,978	\$587,805	2.6%

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.

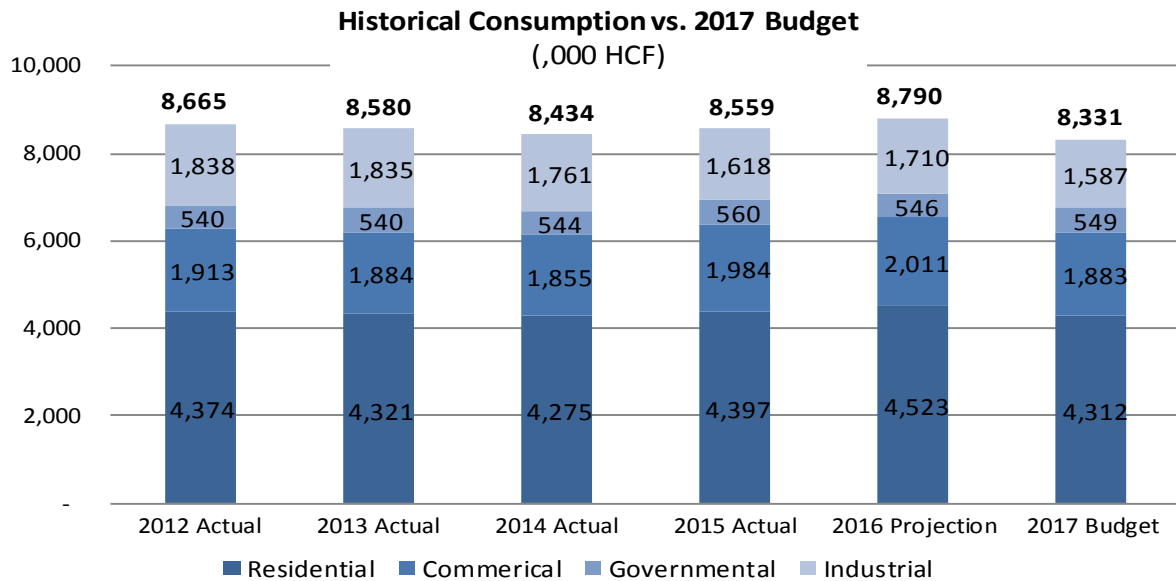
1. Costs are first assigned to various functions such as supply, treatment, pumping and distribution. The District’s accounting system readily provides this functional breakdown.
2. The functional costs are then allocated to various types of service provided by the water utility or cost components. The 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.

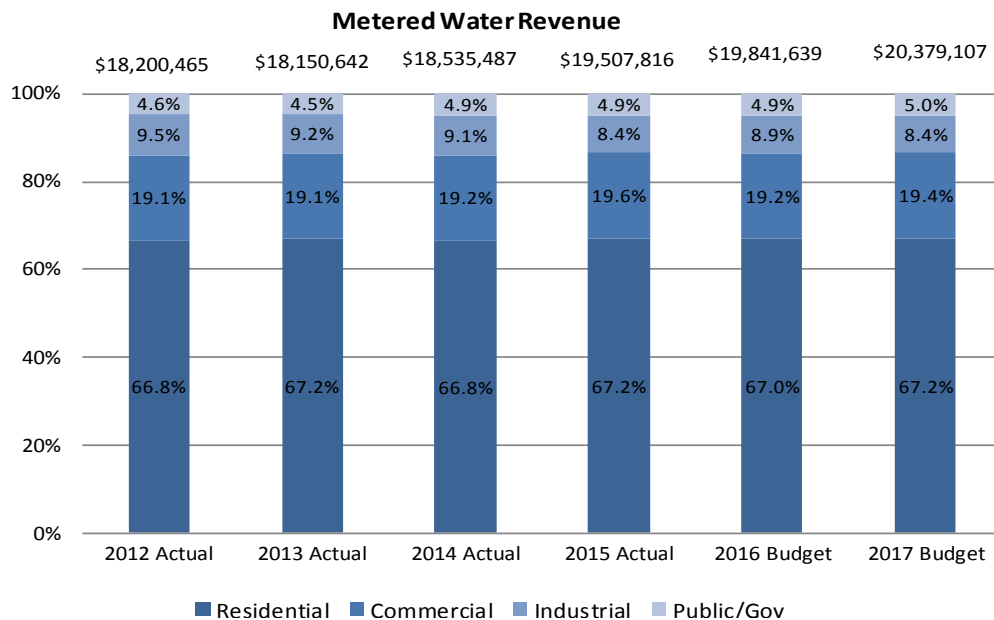
The last study was conducted in 2006. The study indicated that industrial and commercial customers were not paying the full cost of service. Because the rate change needed to those customers would create rate shock and impact economic development, a policy was established to gradually increase the rates impacting those customers over subsequent rate adjustments. Since 2007, those rates have been increased at a rate of 150% of the rate change for residential customers. The results of the 2016 Cost of Service Study will be available late 2016. The Board will review the results and incorporate any agreed upon changes in 2017.

Water Sales – Metered Revenue

Metered water revenue has risen from \$18.2 million in 2012 to the budgeted amount of \$20.4 million (12.1% increase). The rise in revenue was the result in 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 detail discussion on subsequent pages.



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

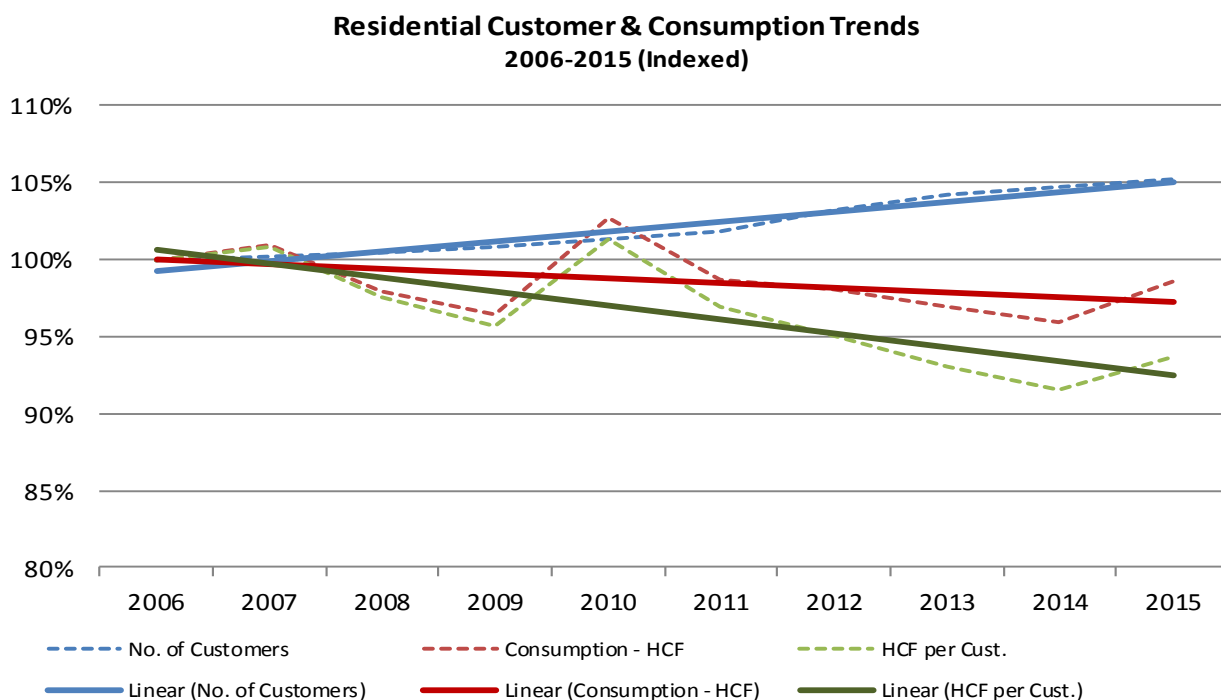


Water Sales – Metered Revenue - Consumption

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 a minimum consumption level and are billed again 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.

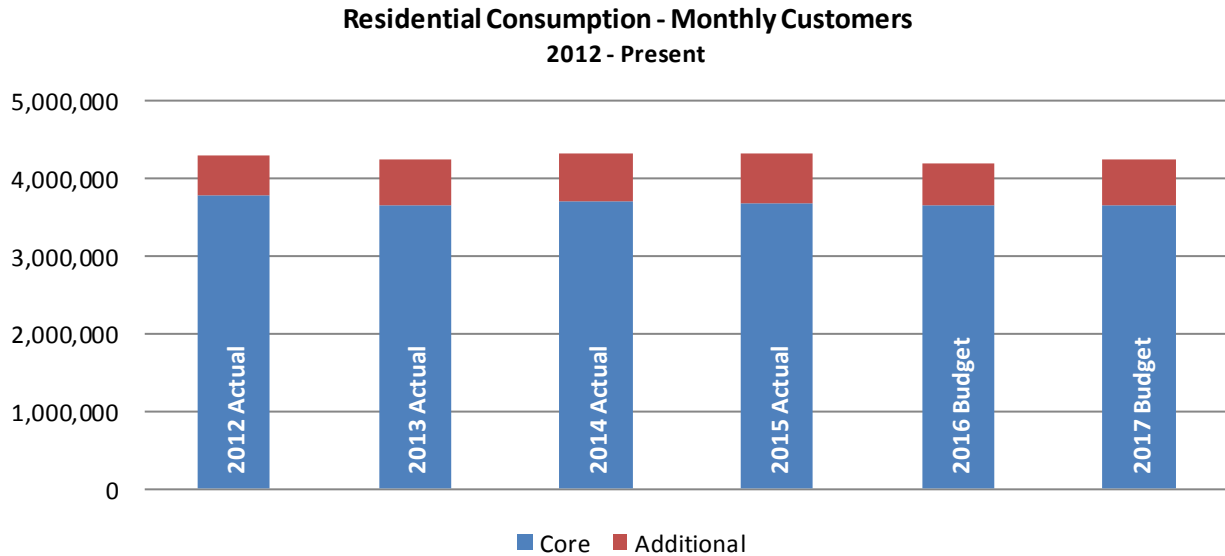


As shown above, overall consumption (red line) has declined by approximately 3% despite a 6% increase in the number of customers (blue). This is due to roughly an 8% decrease in consumption per customer (green). To incorporate the slow decline in residential consumption year over year this percentage of decline was factored into the estimated 2017 core usage.

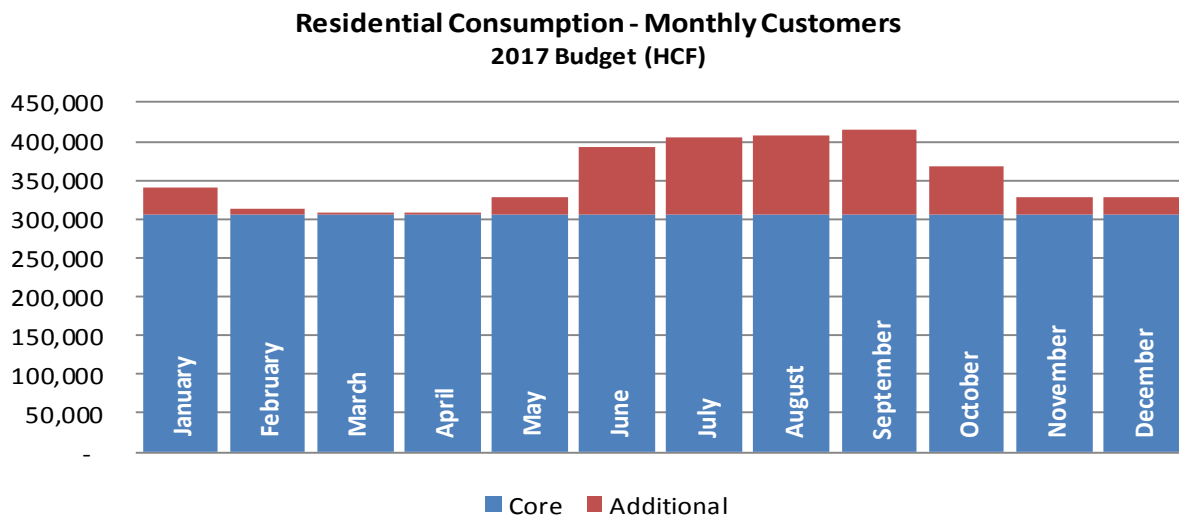
The additional usage was then determined by averaging the percentage of additional consumption over the core in the sample years. For the 2017 budget the core consumption was approximately 3.7 million hcf (hundred cubic feet) and the additional usage was 16% of the core. This falls in line with historical data.

Water Sales – Metered Revenue - Consumption

Residential (continued)



The monthly additional consumption was determined based on average monthly consumption from a rolling the three-year period ending December 2015. Two-thirds of the additional consumption is used between the months of June through September.



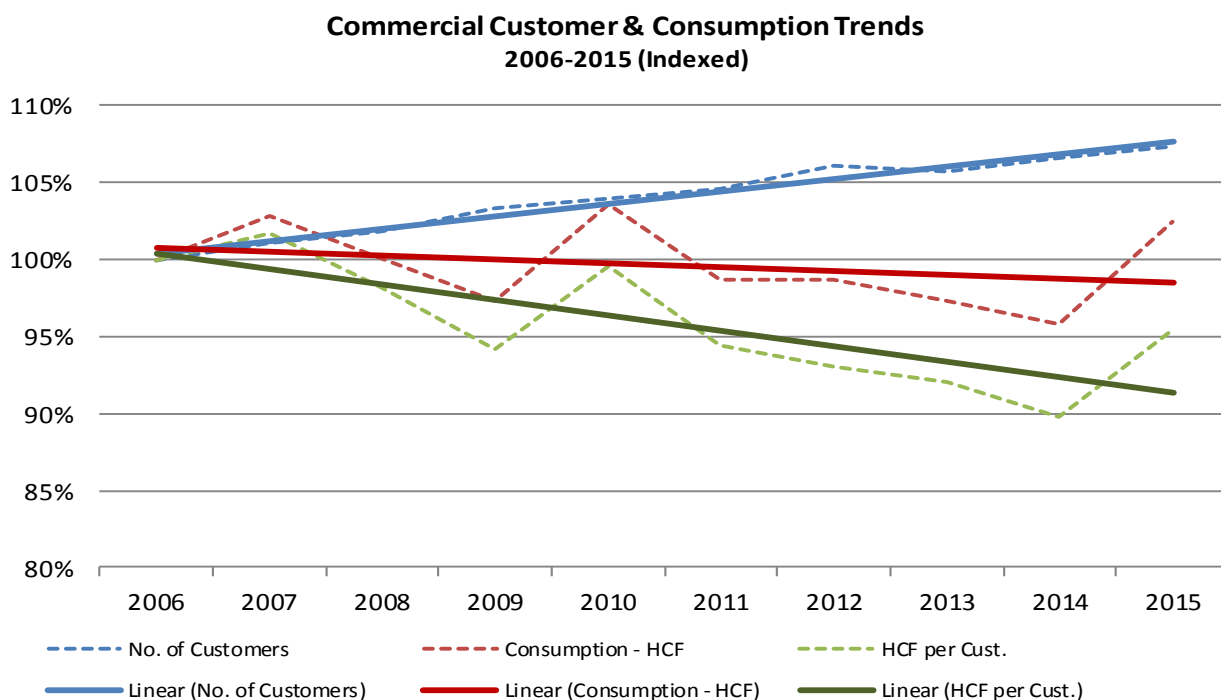
Consumption by seasonal customers makes up only 1.6% of total residential consumption. Residential seasonal consumption for the budget was based on a three-year period from 2013-2015 and is approximately 68,000 hcf for the year.

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.

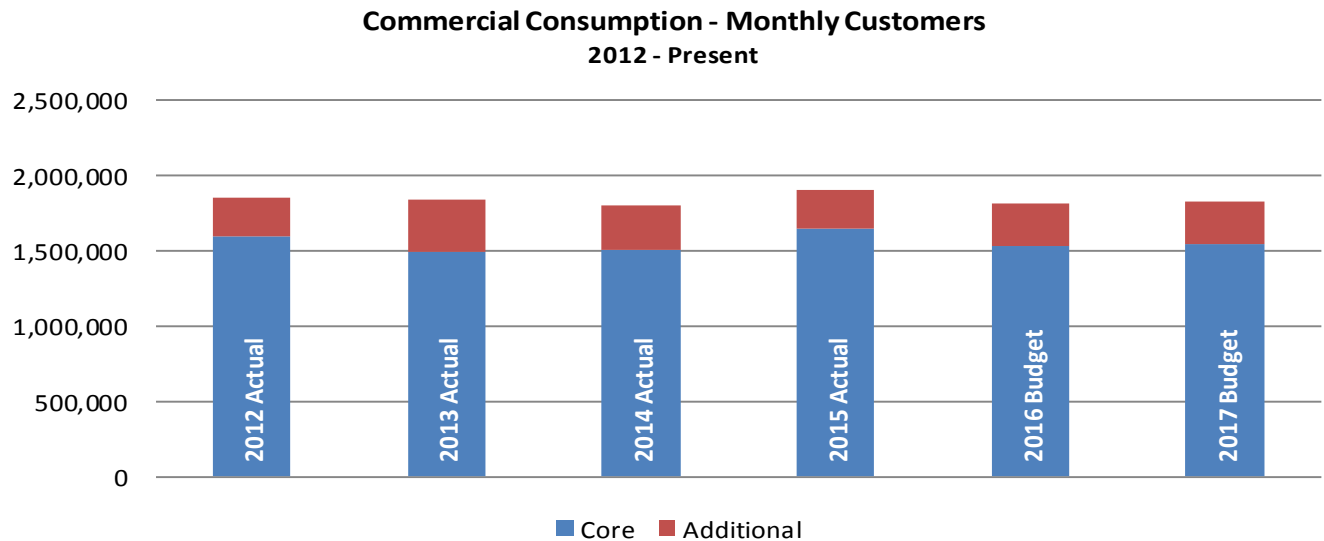
In the same manner as residential consumption, monthly customer consumption has been calculated by determining the core level of consumption, then estimating the amount of additional usage. The monthly core level was reached by taking the average of the lowest three months of each year in the sample 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, producing a very similar rate of decline in overall consumption as is present on the residential side. To incorporate this decline in commercial consumption year over year, this percentage of decline was also factored into the core.



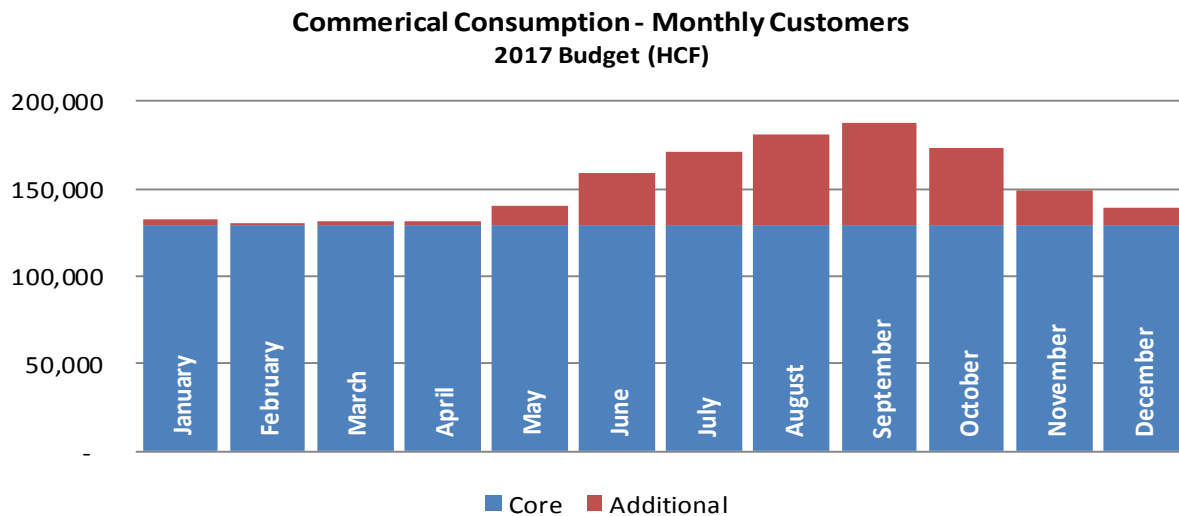
The additional usage was then determined by averaging the percentage of additional consumption over the core in the sample years. For the 2017 budget the core consumption was approximately 1.5 million hcf and the additional was 18% of the core. The variation of additional consumption (over core) has ranged between 15% and 22% in the sample years.

Water Sales – Metered Revenue - Consumption

Commercial (continued)



The monthly additional consumption was determined based on average monthly consumption from a rolling the three-year period ending December 2015. Two-thirds of the additional consumption is used between the months of June through September.



Consumption by seasonal customers makes up only 3.0% of total commercial consumption. Commercial seasonal consumption for the budget was based on a five-year period from 2011-2015 and is approximately 56,000 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 (formerly National Semiconductor), Sappi Fine Paper, Fairchild 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.

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, which 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. Calpine's usage is expected to be similar to last year and is estimated at 615,000 HCF.

Texas Instruments (formerly National Semiconductor)

Texas Instruments is a company that designs and makes semiconductors, which it sells to electronics designers and manufacturers globally. In 2011, the company bought National Semiconductor, a semiconductor manufacturer which specializes in analog devices and subsystems that operates a wafer fabrication plant in South Portland. Usage is expected to be about the same as 2015 and is estimated at 320,000 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. 2017 usage is predicted to be similar to the last 12 month's usage. An estimate of 254,000 HCF was used for the budget.

Fairchild Semiconductor

Fairchild Semiconductor is an electronics component manufacturer. The company makes tiny silicon chips used in a variety of industries, including cellular technology, home goods and automotive applications. Fairchild operates a manufacturing facility in Portland and a business office in South Portland. In September 2016 the company was purchased by ON Semiconductor. 2017 usage is predicted to be similar to the last 12 month's usage. An estimate of 135,000 HCF was used for the budget.

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, which operates a bean cannery in Portland. Usage is expected to be about the same as 2015 and is estimated at 82,000 HCF.

Water Sales – Metered Revenue - Consumption

Public/Governmental

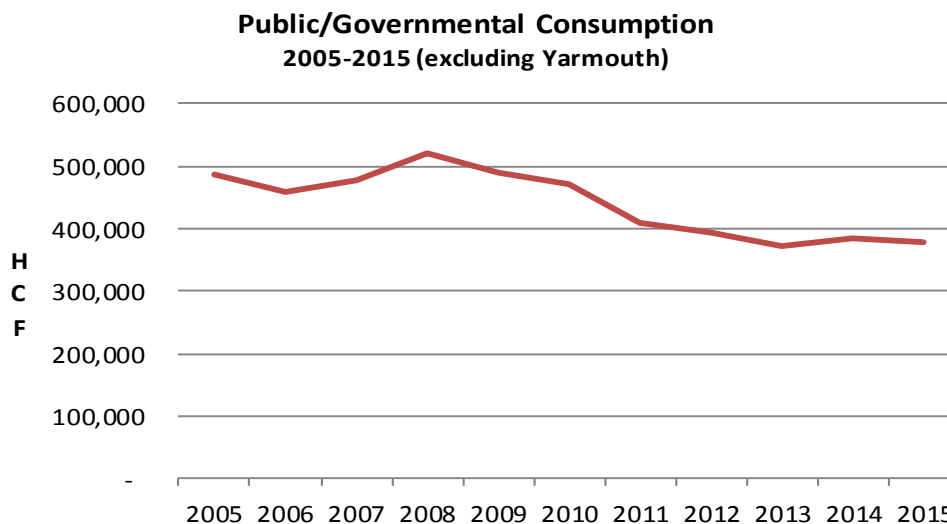
Yarmouth Water District

Approximately 30% of public/governmental consumption comes from usage by the Yarmouth Water District which provides this 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. In estimating usage for the plant it was assumed that oil prices would remain low and consumption would be consistent with current levels (170,000 HCF).

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, we do not anticipate this decrease in consumption to return and have predicted usage to be similar to the average of the last three full years (2013-2015).



Water Sales – Metered Revenue – Rates

Water Rate Schedule

A 1.67% increase is proposed to be implemented effective 5/1/2017. Board of Trustees will review and approve any rate adjustment in first quarter of 2017.

Current Rates: Effective 05/01/2016

Meter or Service Line Size	Member Rate	Non-member Rate
<u>Private Fire Monthly Fee</u>		
2	\$3.57	\$4.10
3	7.99	9.18
4	14.26	16.40
6	34.08	39.18
8	57.06	65.59
10	89.13	102.56
12	128.35	147.61
16	228.17	262.40
<u>Minimum Monthly Charges</u>		
5/8	\$9.03	\$10.38
3/4	10.64	12.22
1	13.80	15.90
1 1/2	23.29	26.77
2	33.54	38.55
3	60.85	69.96
4	91.59	105.33
6	176.97	203.50
8	279.41	321.33
10	404.56	465.25
12	535.54	615.86
Low income	2.26	2.61
<u>Monthly Volume Charge</u>		
First 100 Cf	minimum	minimum
Next 2,900 Cf	\$2.26	\$2.61
Next 7,000 Cf	1.90	2.18
Next 40,000 Cf	1.68	1.93
Over 50,000 Cf	0.94	1.10

Typical Customer Increases		Current	Proposed 1.7%	\$	%
Residential (per month)	.62" meter, 7 HCF	\$22.59	\$22.91	\$0.32	1.4%
Commercial (per month)	.75" meter, 80 HCF	171.18	174.21	3.03	1.8%
Small Industrial (per month)	2" meter, 1,300 HCF	1,656.08	1,692.50	36.42	2.2%
Large Industrial (per month)	8" meter, 56,000 HCF	5,319.95	54,455.91	1,135.96	2.1%
Sprinkler (per year)	6" meter	408.93	416.09	7.16	1.8%
Public Fire (per year)		1,336,632.00	1,360,023.00	23,391.00	1.7%
Seasonal (per year)	.62" meter	227.88	231.87	3.99	1.8%

Water Sales – Metered Revenue - Rates

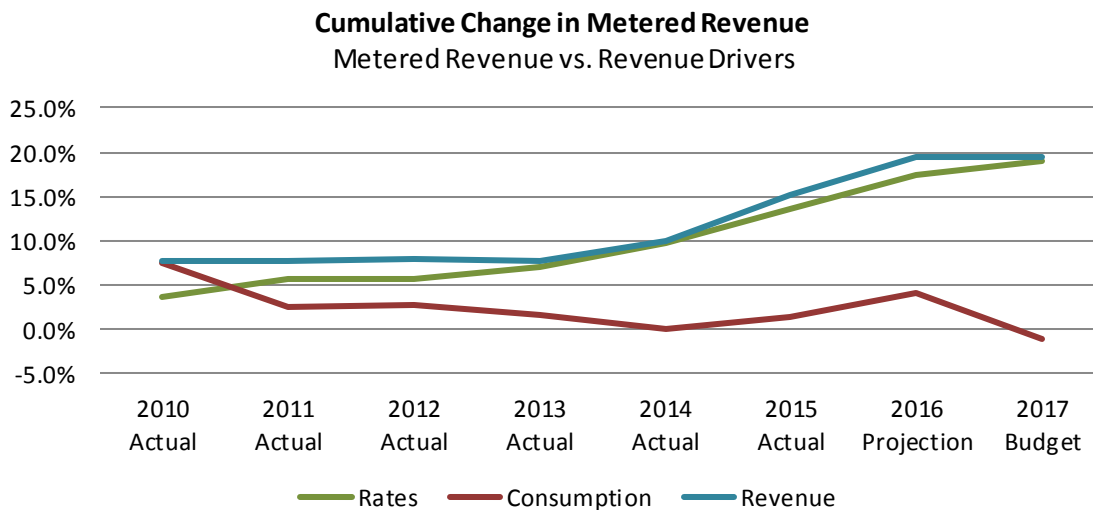
Water Rate Schedule (continue)

Water rates were unchanged from 2002 through 2006, rate changes since that time were:

<u>Effective Date</u>	<u>Metered Rates</u>	<u>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*	1.67% increase	1.75% increase

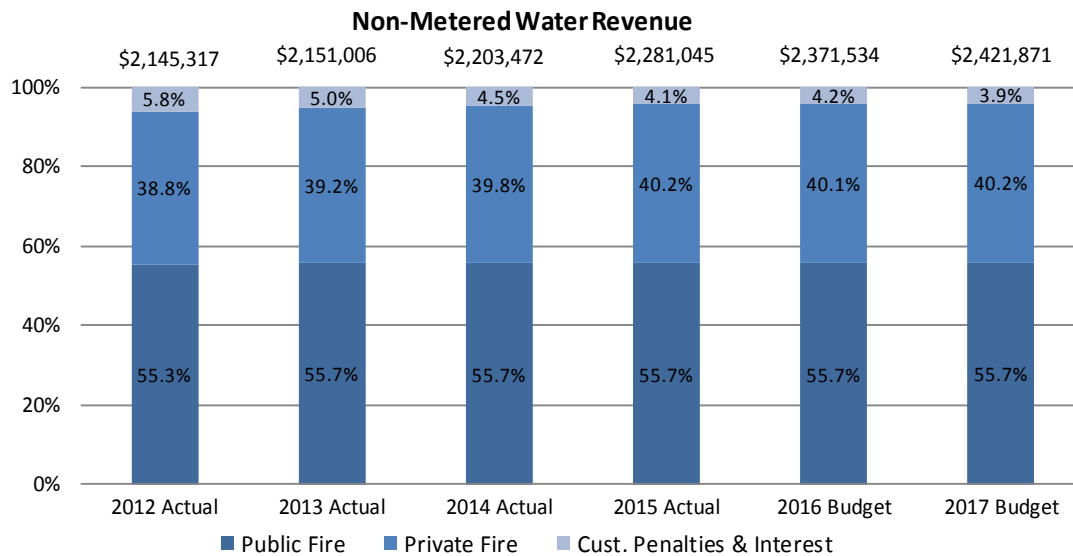
* = Proposed increase, subject to Board of Trustees approval.

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 0.1% increase in water revenue (2016 Projection vs. 2017 Budget) was the result of the 1.7% increase in rates and a 5.2% decrease in forecasted consumption.

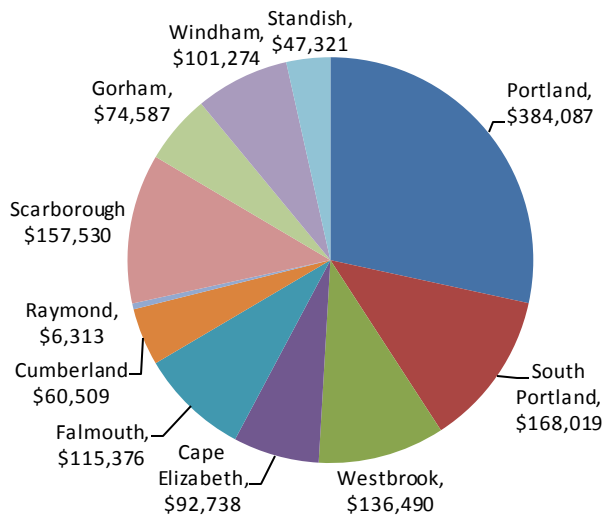


Water Sales – Non-Metered Revenue

Non-metered water revenue has risen from \$2.1 million in 2012 to the budgeted amount of \$2.4 million (14.0%). 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

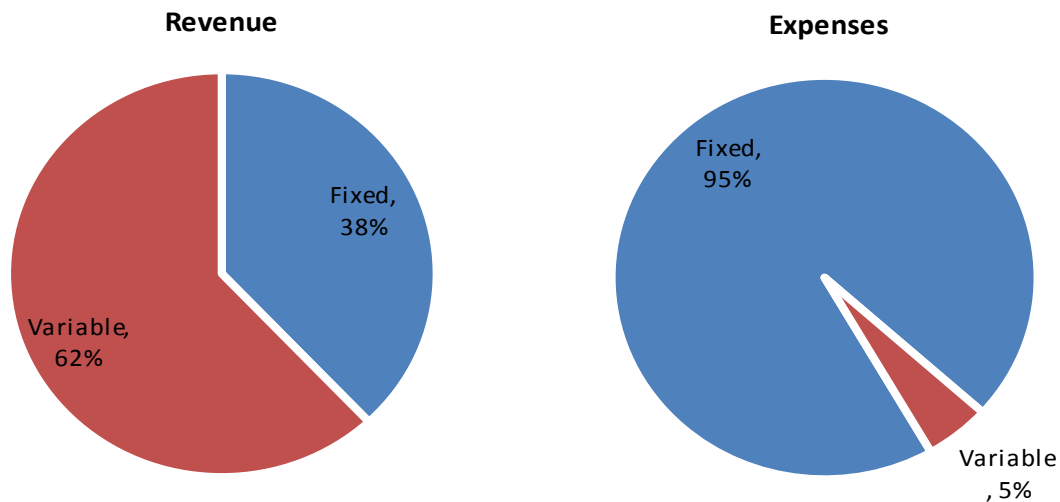
Service Line Size (inches)	Annual Fee (Proposed)	Number of Customers
2	\$ 43.64	289
3	\$ 97.55	0
4	\$ 174.06	176
6	\$ 416.09	1133
8	\$ 696.64	547
10	\$ 1,088.29	36
12	\$ 1,567.09	22
16	\$ 2,785.93	1

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.

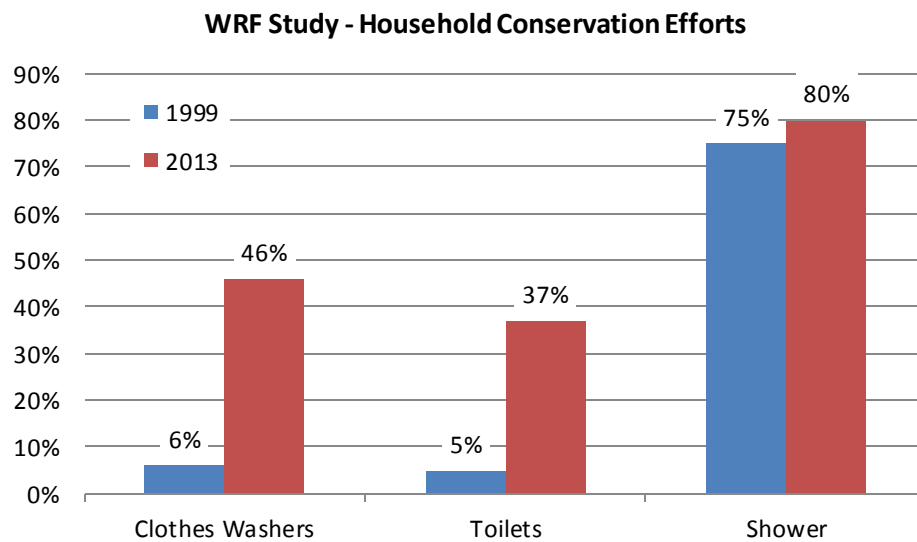
Cost of Service Gap

The last Cost of Service Study was completed in 2006. The study indicated that industrial/commercial customers generate less revenue than the costs to serve them. The Board requested that 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 150% compared to smaller ones. The results of the 2016 Cost of Service Study are still pending.

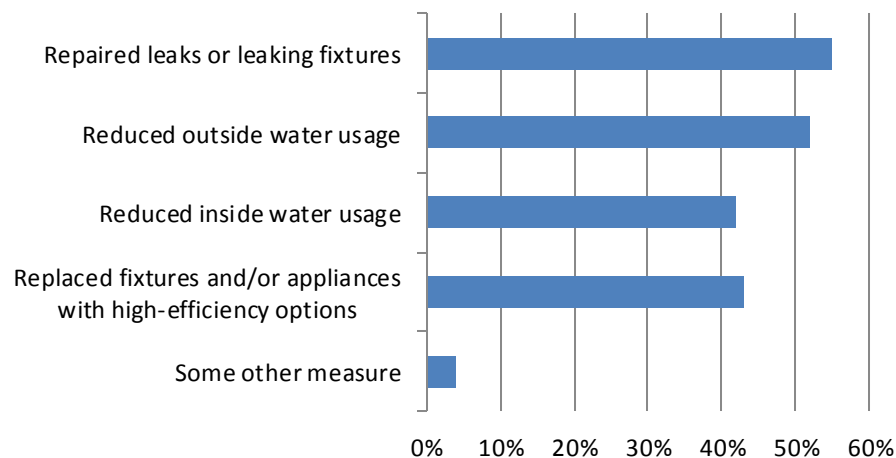
Water Sales - Long-Term Considerations (continued)

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 household 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 2017, assessments for Cape Elizabeth, Cumberland, Falmouth, Portland and Windham were increased (see table below).

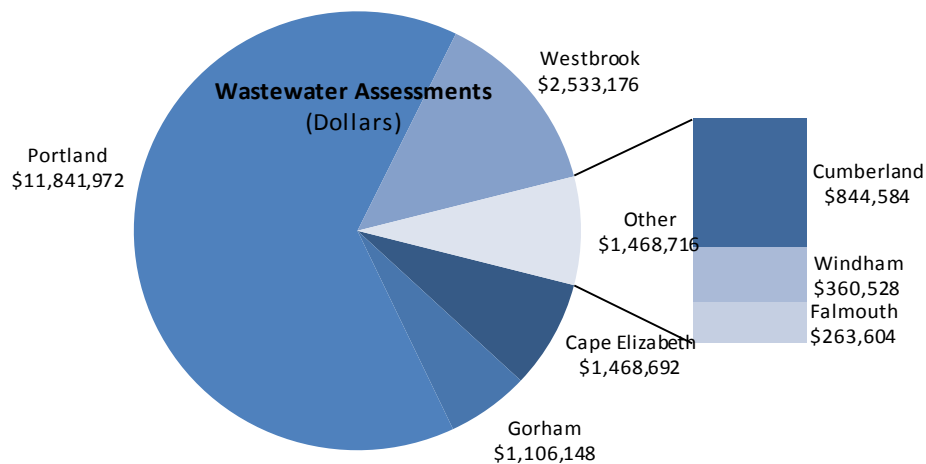
Wastewater Assessments

	2015 Actual	2016 Actual Jan-Jun	2016 Budget	2017 Budget	\$-Diff.	%-Diff.
Cape Elizabeth	\$1,412,112	\$721,704	\$1,443,408	\$1,468,692	\$25,284	1.8%
Cumberland	731,784	375,036	750,072	844,584	94,512	12.6%
Falmouth	15,012	7,506	15,012	263,604	248,592	1656.0%
Gorham	1,106,148	553,074	1,106,148	1,106,148	-	0.0%
Portland	10,981,308	5,654,370	11,308,740	11,841,972	533,232	4.7%
Westbrook	2,533,176	1,266,588	2,533,176	2,533,176	-	0.0%
Windham	351,756	175,878	351,756	360,528	8,772	2.5%
	\$17,131,296	\$8,754,156	\$17,508,312	\$18,418,704	\$910,392	5.2%

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

	2015 Actual	2016 Actual Jan-Jun	2016 Budget	2017 Budget	\$-Diff.	%-Diff.
Scarborough	10,620	5,412	10,824	10,980	156	1.4%
South Portland	192,384	96,192	192,384	192,384	-	0.0%
	\$203,004	\$101,604	\$203,208	\$203,364	\$ 156	0.1%



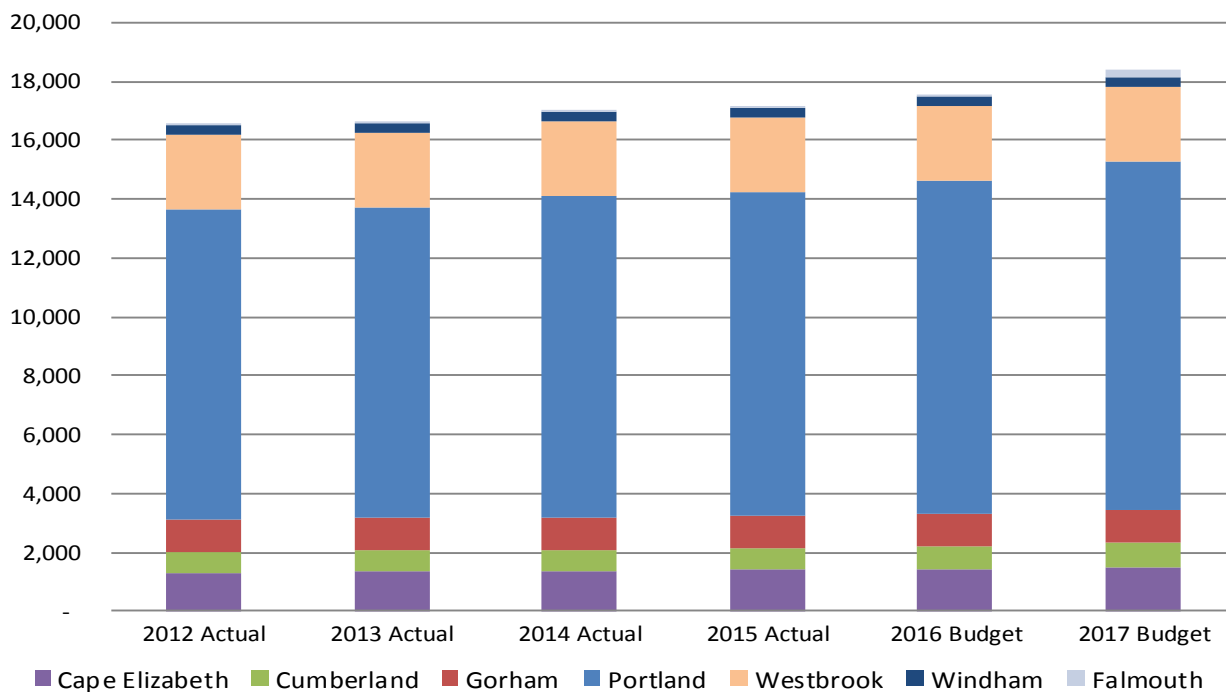
Wastewater Assessments Revenue Trend

Wastewater assessments rose from \$16.5 million in 2012 to a budgeted \$18.4 million in 2017 (an increase of 11.5%). While operating costs have increased over this time period, the majority of the increases were due to capital projects done to upgrade existing wastewater facilities. The significant increase in Falmouth is related to the debt service for upgrades of the Mill Creek WWPS and related forcemain.

Wastewater Assessments by Fund:

	Cape Eliz.	Cumberland	Gorham	Portland	Westbrook	Windham	Falmouth	Total
2012 Actual	1,293,540	712,800	1,084,464	10,540,044	2,533,176	351,756	15,012	16,530,792
2013 Actual	1,365,084	713,940	1,084,464	10,540,044	2,533,176	351,756	15,012	16,603,476
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 Budget	1,443,408	750,072	1,106,148	11,308,740	2,533,176	351,756	15,012	17,508,312
2017 Budget	1,468,692	844,584	1,106,148	11,841,972	2,533,176	360,528	263,604	18,418,704

Assessments by Fund (2012-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.

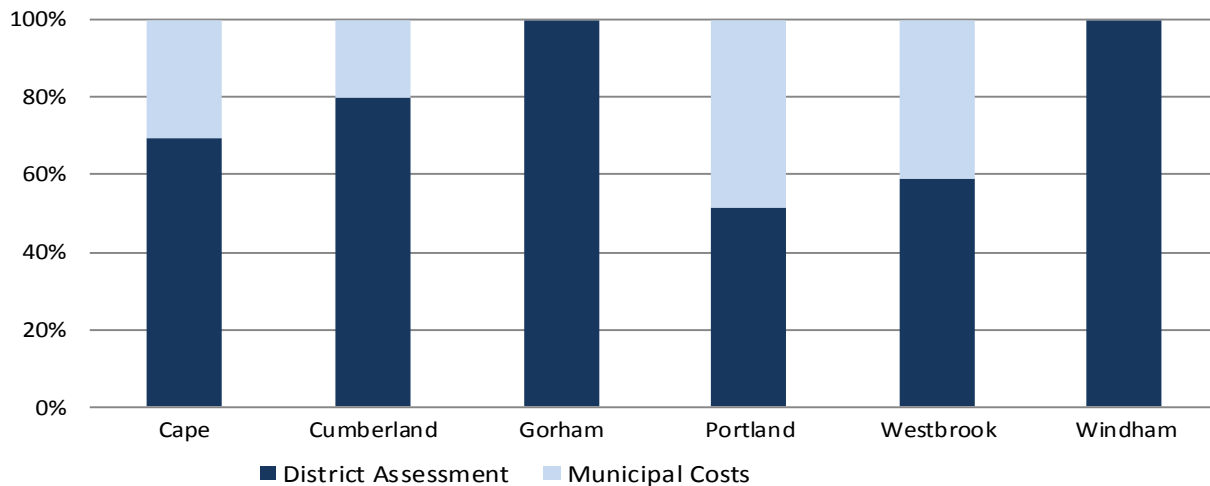
Sewer Rates Effective 10/01/2016

	Minimum HCF	Minimum Charge	Additional HCF
Portland	1	\$8.20	\$8.20
Cumberland	0	36.92	5.29
South Portland	1	4.92	4.92
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 2015 that the municipalities used to pay the District's assessment and their internal costs. In 2015, Gorham's and Windham's sewer fees were less than District's assessment by \$28,000 and \$22,000, respectively. The shortfall was covered by the town's prior year surplus or general fund appropriation.

Municipal Sewer Fees Collected in 2015



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 rate of return on investments is assumed to be 0.73% and is based on a cash and investment balance of \$28.7 million. The rate of return for the 2017 Budget is an increase from the prior year budgeted rate as well as the actual rate from 2015.

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 \$6,546 from that loan in 2017.

	2015 Actual	2016 Actual Jan-Jun	2016 Budget	2017 Budget	\$-Diff.	%-Diff.
Water Fund	\$55,926	\$55,970	\$56,031	\$113,072	\$57,041	101.8%
Wastewater Operating Funds:						
Cape Elizabeth	2,798	3,426	2,969	6,729	3,760	126.6%
Cumberland	3,072	2,952	3,412	5,788	2,376	69.6%
Falmouth	104	82	62	191	129	208.1%
Gorham	5,598	5,312	5,995	10,365	4,370	72.9%
Portland	28,372	21,711	16,093	43,909	27,816	172.8%
Westbrook	21,153	20,444	21,356	32,488	11,132	52.1%
Windham	<u>1,907</u>	<u>1,651</u>	<u>1,972</u>	<u>3,240</u>	<u>1,268</u>	<u>64.3%</u>
	63,004	55,578	51,859	102,710	50,851	98.1%
Contracted Billing:						
Scarborough	12	21	13	41	28	215.4%
South Portland	<u>547</u>	<u>465</u>	<u>354</u>	<u>921</u>	<u>567</u>	<u>160.2%</u>
	559	486	367	962	595	162.1%
Total	\$ 119,489	\$ 112,034	\$ 108,257	\$ 216,744	\$ 108,487	100.2%

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 & meters.
Customer Activation Fees	Fees for new account activations.
Jobbing Revenue	Revenue for work performed by District employees which 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 to Portland for Riverside area per agreement.

Water Fund:	2015 Actual	2016 Actual Jan-Jun	2016 Budget	2017 Budget	\$-Diff.	%-Diff.
Cross Connection Fees	\$30,977	\$22,937	\$26,900	\$30,000	\$3,100	11.5%
Customer Connection Fees	84,530	39,872	90,180	85,000	(5,180)	-5.7%
Customer Activation Fee	69,521	32,640	65,090	70,000	4,910	7.5%
Jobbing Surcharge	87,163	20,037	54,360	60,000	5,640	10.4%
Miscellaneous Income	96,634	71,758	28,840	72,900	44,060	152.8%
Total Water Division	\$368,825	\$187,244	\$265,370	\$317,900	\$52,530	19.8%

Wastewater Funds:	2015 Actual	2016 Actual Jan-Jun	2016 Budget	2017 Budget	\$-Diff.	%-Diff.
Septage - Gorham	\$15,161	\$4,230	\$18,800	\$15,200	(\$3,600)	-19.1%
Septage - Portland	140,678	39,104	99,700	140,000	40,300	40.4%
Septage - Westbrook	108,900	28,960	99,300	109,000	9,700	9.8%
Septage - Windham	2,682	846	3,200	2,700	(500)	-15.6%
Miscellaneous Income	32,028	250	29,600	32,000	2,400	n/a
Total Wastewater Division	299,449	73,390	250,600	298,900	48,300	19.3%
Total Water & Wastewater	\$668,274	\$260,634	\$515,970	\$616,800	\$100,830	19.5%

Projections for Rate-Making Purposes

Multi-year projections are made for the water fund's revenue and 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 projections is provided below with a detail of each fund in the Budget by Fund section. The proposed budget is compared to the projection provided to the Board of Trustees and Municipal officials in last year's budget.

	Proposed 2017 Budget	Prior Year 2017 Projection	2018 Projection	2019 Projection	2020 Projection	2021 Projection
Water	\$ 22,800,978	\$ 23,323,832	\$ 23,941,027	\$ 25,138,078	\$ 26,394,982	\$ 27,714,731
	1.75%	5.0%	5.0%	5.0%	5.0%	5.0%
Wastewater:						
Cape Elizabeth	1,468,692	1,537,230	1,562,036	1,718,240	1,812,743	1,912,444
	1.8%	6.5%	6.4%	10.0%	5.5%	5.5%
Cumberland	844,584	862,583	903,705	917,261	931,020	944,985
	2.6%	15.0%	7.0%	1.5%	1.5%	1.5%
Gorham	1,106,148	1,144,863	1,128,271	1,150,836	1,173,853	1,200,265
	0.0%	3.5%	2.0%	2.0%	2.0%	2.3%
Portland	11,841,972	11,987,264	12,457,755	12,831,488	13,216,433	13,414,679
	4.7%	6.0%	5.2%	3.0%	3.0%	1.5%
Westbrook	2,533,176	2,659,835	2,659,835	2,792,827	2,890,576	2,948,388
	0.0%	5.0%	5.0%	5.0%	3.5%	2.0%
Windham	360,528	360,550	365,936	369,595	373,291	377,024
	2.5%	2.5%	1.5%	1.0%	1.0%	1.0%
Total Wastewater	\$ 18,155,100	\$ 18,552,325	\$ 19,077,538	\$ 19,780,247	\$ 20,397,916	\$ 20,797,785

Water Operating Fund - The proposed 2017 water revenue budget is lower than the projection done in 2015 for 2017 by \$522,854. Lower water revenue was needed due to lower debt service costs as the actual interest rate was lower than expected (\$400,000) and interest/other revenue is projected to be \$100,000 higher. The 2017 budget includes an average 1.67% increase in water rates, effective May 1, 2017 and revenues increases of 5.0% for 2018 to 2021 are projected. The Board of Trustees will review the multi-year plan during January 2017.

Wastewater Operating Funds - All 2017 wastewater assessments are at or below projections that were provided to the wastewater municipalities for ratemaking purposes last year. The updated 2018-2021 are preliminary and will be reviewed with municipal officials in November 2016 before being finalized.

Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 2.5 to 3.0% each year. Maintain same number of employees.
- Benefit increases of 3% each year. Assumed health insurance increases 5% per year and pension contribution increase of 2%.
- Other expenses increase by 2.5% in 2018 and 3.5% in subsequent years.
- New debt service and renewal/replacement fund expenditures consistent with the 2017 5-year capital plan (new water debt assumed a 20-year life at 5%; new wastewater debt assumed a 20 year at 3%). Assumed water capital reserve bonds were issued for 10 years. A summary of capital expenditures and funding source is included.
- Estimated wastewater treatment assessments from third-parties are included.

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 balance (25% of net budget) and 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 will be above the operating fund target at the end of 2017.

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

Water & Wastewater Fund Operating Surpluses (Goal 25.0%)

	Balance 1/1/2016	Projected 2016	Budget 2017	Balance 12/31/2017	Target Balance	Projection %
Water	\$4,608,940	\$1,400,004	\$179,113	\$6,188,057	\$5,751,061	26.9%
Cape Elizabeth	400,000	(17,145)	-	382,855	\$368,355	26.0%
Cumberland	328,678	31,375	-	360,053	\$212,593	42.3%
Gorham	380,286	79,688	-	459,974	\$282,928	40.6%
Portland	3,568,868	414,885	-	3,983,753	\$3,006,470	33.1%
Westbrook	969,253	14,666	-	983,919	\$676,666	36.4%
Windham	117,580	17,085	-	134,665	91,617	36.7%
	<u>\$10,373,605</u>	<u>\$1,940,558</u>	<u>\$179,113</u>	<u>\$12,493,276</u>	<u>\$10,389,690</u>	<u>30.1%</u>

Falmouth & Contracted Billing Operating Surpluses:

	Balance 1/1/2016	Projected 2016	Budget 2017	Balance 12/31/2017
Falmouth	\$9,161	\$2,969	\$0	\$12,130
Scarborough	5,293	936	(65)	6,164
So. Portland	108,377	3,751	795	112,923
	<u>\$122,831</u>	<u>\$7,656</u>	<u>\$730</u>	<u>\$131,217</u>

Combined Surpluses \$10,496,436 \$1,948,214 \$179,843 \$12,624,493

Watershed Protection Land Funds (Goal 15.0%)

	Balance 1/1/2016	Projected 2016	Budget 2017	Balance 12/31/2017	Target Balance	Projection %
Watershed Reserve	\$1,918,782	-	-	\$1,918,782	\$3,420,147	8.4%
Land Cash Reserve	715,371	(33,236)	-	682,135		
	<u>\$2,634,153</u>	<u>(\$33,236)</u>	<u>-</u>	<u>\$2,600,917</u>	<u>\$3,420,147</u>	<u>11.4%</u>

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

2017 Financial Summary by Category

	2016 Budget	2017 Budget	Diff \$	Diff %
Salaries & Wages	10,361,351	10,625,197	\$263,846	2.5%
Employee Benefits	5,308,818	5,492,790	183,972	3.5%
Biosolids Disposal	1,390,252	1,451,816	61,564	4.4%
Chemicals	1,100,862	989,330	(111,532)	-10.1%
Contracted Services	4,171,063	4,357,048	185,985	4.5%
Deferred Cost W/O	24,486	14,400	(10,086)	-41.2%
Heat/Fuel Oil	448,844	342,764	(106,080)	-23.6%
Insurance	200,164	201,206	1,042	0.5%
Materials & Supplies	1,602,150	1,634,986	32,836	2.0%
Other Expense	748,253	707,256	(40,997)	-5.5%
Purchased Power	1,786,094	1,991,651	205,557	11.5%
Regulatory/Taxes	214,896	218,015	3,119	1.5%
Tele/Other Utilities	350,638	348,282	(2,356)	-0.7%
Transportation	1,215,348	1,210,427	(4,921)	-0.4%
Grand Total	28,923,219	29,585,168	661,949	2.3%
Trans Offset	-816,925	-814,406	2,519	-0.3%
Operating Expense	28,106,294	28,770,762	664,468	2.4%

2017 Financial Summary by Department

	Number of Employees	2016 Budget	Number of Employees	2017 Budget	Budget Diff \$	Budget Diff %
Water Operations	53	\$8,104,858	53	\$8,280,824	\$175,966	2.2%
Wastewater Services	38	9,161,824	39	9,518,744	356,920	3.9%
Environmental Services	16	1,939,965	16	1,947,919	7,954	0.4%
Engineering Services	30	4,017,149	30	4,104,732	87,583	2.2%
Administration	40	5,351,882	40	5,459,534	107,652	2.0%
Non-Departmental	1	347,541	0	273,415	(74,126)	-21.3%
Total	178	\$28,923,219	178	\$29,585,168	\$661,949	2.3%

Departmental Expense by Category

Salaries/Wages:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
660111 - SALARIES/WAGES NON-UNION	\$3,665,675	\$1,910,487	\$4,097,511	\$4,168,157	\$70,646	1.7%
660121 - WAGES/REGULAR UNION	5,207,473	2,719,078	5,416,600	5,631,544	214,944	4.0%
660122 - WAGES/OVERTIME UNION	468,105	214,922	401,448	418,916	17,468	4.4%
660123 - WAGES/DOUBLETIME UNION	50,029	20,245	48,020	45,939	(2,081)	-4.3%
660124 - WAGES/STANDBY TIME UNION	136,065	64,695	124,928	127,655	2,727	2.2%
660131 - WAGES - REGULAR - TEMPS	168,046	65,666	157,724	157,820	96	0.1%
660136 - CONTRACTED - TEMP	52,518	7,454	88,120	48,166	(39,954)	-45.3%
66014 - VACATION ACCRUAL	19,845	-	-	-	-	n/a
660141 - TRUSTEES COMPENSATION	23,100	12,500	27,000	27,000	-	0.0%
66015 - SICKTIME ACCRUAL	41,436	-	-	-	-	n/a
Salaries & Wages Total	9,832,292	5,015,047	10,361,351	10,625,197	263,846	2.5%

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 decreased from 3.1% of total labor in 2016 to 2.9% in 2017 (a decrease of \$16,508 or 4.9%).

Labor rates for all employees (union and non-union) were assumed to be 2.5% higher than the rates paid to employees on July 1, 2016. The overall O&M increase for all labor categories equaled the labor rate change.

Combined the two regular labor accounts (660111 & 660121) increased 3.0%.

Budgeted hours for overtime/doubletime/standby rose 0.5% (94 hours) while hours for temporary employees decreased 11.5%.

The District's overall number of regular (non-temporary) employees remained the same between 2016 and 2017 at 178.

Positions	2016 Budget	2017 Budget	Change
Full Time	176	176	0
Part Time	2	2	0
Total	178	178	0

The Human Resources section has additional details.

Departmental Expense by Category (continued)

Employee Benefits:

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
660401 - FICA - EMPLOYERS' SHARE	\$723,637	\$377,033	\$785,907	\$809,135	\$23,228	3.0%
660405 - SAFETY/WHY PROGRAM ITEMS	35,061	9,102	38,465	35,511	(2,954)	-7.7%
660411 - MEALS ALLOWANCE	9,537	3,920	6,829	7,711	882	12.9%
6604151 - FIELD UNIFORMS	1,295	1,255	1,300	1,275	(25)	-1.9%
660418 - STIPENDS	14,600	14,100	14,800	14,800	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	47,230	4,009	5,100	3,800	(1,300)	-25.5%
660491 - FRINGE BENEFITS-REG/SAL	3,922,079	2,153,701	4,456,417	4,620,558	164,141	3.7%
Employee Benefits Total	4,753,439	2,563,120	5,308,818	5,492,790	183,972	3.5%

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 2017 Budget, the percentage is 47.15% which is an increase of 0.7% over 2016's percentage of 46.84%. Total benefit costs rose 3.4% with increases in pensions (29.9%) and decrease in health insurance (3.7%).

The Human Resource section has additional details.

Biosolids Disposal:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
663571 - BIOSOLIDS DISPOSAL	\$1,518,633	\$777,998	\$1,390,252	\$1,451,816	\$61,564	4.4%
Biosolids Disposal Total	1,518,633	777,998	1,390,252	1,451,816	61,564	4.4%

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	2016	2017	Change	%	2016 % Solids	2017 % Solids
Portland (East End)	15,864.0	16,667.0	803.0	5.1%	23.3%	23.0%
Westbrook	5,112.0	5,162.0	50.0	1.0%	16.0%	15.5%
Cape Elizabeth	196.0	280.0	84.0	42.9%	23.3%	23.0%
Peaks Island	43.5	45.0	1.5	3.4%	23.3%	23.0%
Total	21,215.5	22,154.0	938.5	4.4%		

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 \$64.65; the 2017 Budget assumes a 1.6% CPI increase which yields at rate of \$65.68. This rate is just \$0.15/wet ton above the prior year's budget assumption of \$65.53.

Departmental Expense by Category (continued)

Chemicals:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
66181 - AMMONIA	\$28,339	\$13,361	\$28,185	\$26,715	(\$1,470)	-5.2%
661811 - SODIUM BICARBONATE	13,029	6,141	12,474	12,911	437	3.5%
661812 - SODIUM BISULFITE	149,479	79,403	160,320	152,675	(7,645)	-4.8%
66182 - CAUSTIC SODA	64,197	28,777	79,511	95,583	16,072	20.2%
66183 - FLUORINE COMPOUND	58,029	25,170	54,096	53,081	(1,015)	-1.9%
66184 - ZINC ORTHOPHOSPHATE	76,061	36,238	84,954	75,093	(9,861)	-11.6%
66185 - SODIUM HYPOCHLORITE	325,987	179,306	362,844	360,933	(1,911)	-0.5%
66189 - POLYMER	219,230	135,081	251,673	152,836	(98,837)	-39.3%
661892 - LIQUID OXYGEN (LOX)	53,261	29,760	60,795	53,293	(7,502)	-12.3%
661899 - OTHER CHEMICALS	4,203	2,545	6,010	6,210	200	3.3%
Chemicals Total	991,815	535,782	1,100,862	989,330	(111,532)	-10.1%

Chemicals are primarily used at the District's two water and four wastewater treatment facilities. The detail below for the largest facilities shows per unit chemical pricing is generally down (or flat) with projected usage both up and down. Actual unit prices will be known in December. Volumes used were adjusted up or down depending upon historic usage.

The biggest change was the budget for polymer (down 39.3% or \$98,837), particularly at the East End WWTF. The projected usage of that chemical is down significantly per historical trends. In addition, the per unit cost is also projected much lower. Polymer is used to improve the effectiveness of the sludge dewatering process at that wastewater treatment facility.

	2016 Assumption		2017 Assumption		% Change		Budget
	Units	Per Unit	Units	Per Unit	Units	Per Unit	Dollars
<u>Water Treatment (Ozone and Steep Falls Well)</u>							
Ammonia	16,579	1.700	16,615	1.608	0.2%	-5.4%	-\$1,468
Caustic Soda	96,248	0.750	87,541	1.010	-9.0%	34.6%	\$16,216
Fluorine Compound	20,148	2.930	19,552	2.703	-3.0%	-7.7%	-\$6,184
Liquid Oxygen	118,048	0.515	108,923	0.489	-7.7%	-5.0%	-\$7,506
Sodium Hypochlorite	153,386	0.608	150,625	0.646	-1.8%	6.3%	\$4,060
Zinc Orthophosphate	19,185	4.428	17,575	4.273	-8.4%	-3.5%	-\$9,861
<u>East End WWTF</u>							
Polymer	175,000	1.250	137,592	0.850	-21.4%	-32.0%	-\$101,797
Sodium Bisulfite	108,042	1.280	109,968	1.210	1.8%	-5.5%	-\$5,232
Sodium Hypochlorite	406,140	0.608	370,060	0.650	-8.9%	7.0%	-\$6,191
<u>Westbrook WWTF</u>							
Polymer	21,980	1.350	24,000	1.350	9.2%	0.0%	\$2,730
Sodium Bisulfite	9,880	2.120	8,873	2.090	-10.2%	-1.4%	-\$2,401
Sodium Hypochlorite	31,910	0.608	29,802	0.650	-6.6%	7.0%	-\$14

Departmental Expense by Category (continued)

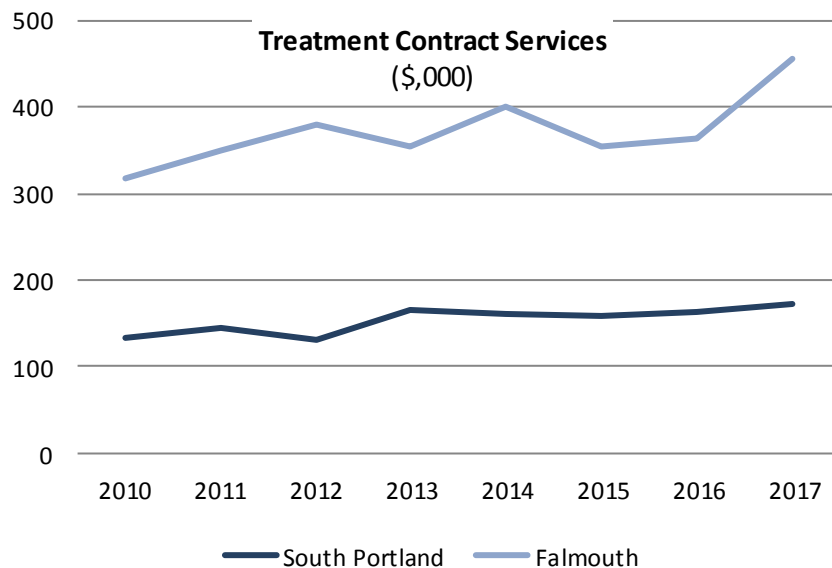
Contracted Services:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
662062 - PRINTER REPAIR	\$0	\$0	\$2,500	\$1,000	(\$1,500)	-60.0%
662063 - COPIER MAINTENANCE/TONER	13,786	9,170	9,500	11,500	2,000	21.1%
6631 - ENGINEERING SERVICES	77,967	34,678	191,350	191,350	-	0.0%
6632 - ACCOUNTING SERVICES	32,500	34,000	34,000	34,500	500	1.5%
66331 - LEGAL - LABOR RELATIONS	82,776	60,054	60,000	60,000	-	0.0%
66333 - BOND COUNSEL	7,500	-	7,500	7,500	-	0.0%
66339 - LEGAL - OTHER	41,775	15,372	34,650	34,500	(150)	-0.4%
66352 - CONSTRUCTION SERVICES	12,192	-	2,500	4,438	1,938	77.5%
663521 - TRAFFIC CONTROL	70,506	24,463	52,068	54,379	2,311	4.4%
6635221 - PAVING - MINOR REPAIR	672,597	112,506	301,291	349,150	47,859	15.9%
663523 - SIDEWALK	21,132	8,164	16,353	18,653	2,300	14.1%
663524 - STREET OPENING	59,782	32,448	59,578	63,645	4,067	6.8%
663525 - CONTRACTOR CONSTRUCTION	470,170	175,422	639,896	609,346	(30,550)	-4.8%
66353 - REPAIR SERVICES	69,044	24,131	44,161	63,500	19,339	43.8%
66354 - MAINTENANCE SERVICES	595,890	303,078	641,764	686,451	44,687	7.0%
663542 - LARGE METER TESTING	1,320	11,219	25,000	12,500	(12,500)	-50.0%
663543 - CSO FLOW MONITORING	130,485	31,995	186,007	191,395	5,388	2.9%
663544 - MAINT SERVICES - CCTV	51,888	-	60,000	65,750	5,750	9.6%
663545 - RADIO SERVICING AND EQUIP	1,473	4,331	4,500	4,000	(500)	-11.1%
663546 - MAINTENANCE - SNOW REMOVL	113,580	44,792	131,750	108,450	(23,300)	-17.7%
663547 - WASTE SLUDGE TRANSPORT	30,745	14,829	21,462	31,800	10,338	48.2%
663551 - LAB ANALYSIS	35,954	17,854	55,210	40,235	(14,975)	-27.1%
663561 - COMPUTER LICENSES	81,060	80,150	84,736	86,702	1,966	2.3%
663562 - COMPUTER MAINTAINENCE	207,267	96,021	208,569	216,721	8,152	3.9%
663563 - COMPUTER CONSULTING/OTHER	28,469	5,465	33,500	21,200	(12,300)	-36.7%
663572 - GRIT & SCREENS DISPOSAL	55,677	25,343	73,950	74,450	500	0.7%
663573 - GREASE DISPOSAL	24,816	8,796	30,500	34,700	4,200	13.8%
663574 - DISPOSAL SERVICES	35,414	11,525	49,681	39,523	(10,158)	-20.4%
6635801 - EMPLOYEE HEALTH SERVICES	9,231	3,382	7,600	6,000	(1,600)	-21.1%
663581 - UTILITY BILLING PRINTING	68,976	46,673	76,577	78,721	2,144	2.8%
663582 - PAYMENT PROCESSING	140,967	69,062	134,000	139,300	5,300	4.0%
663583 - RECEIVABLE COLLECTIONS	7,905	3,209	11,000	10,000	(1,000)	-9.1%
663584 - BANK SERVICE CHARGES	19,404	10,529	19,200	20,400	1,200	6.3%
663585 - TREATMENT CONTRACT SERVIC	530,051	279,550	559,100	665,071	105,971	19.0%
6635851 - WW DEWATERING SERVICES	3,852	2,288	3,158	5,438	2,280	72.2%
6635852 - WW DEWATERING SRVS CREDIT	(3,852)	(2,288)	(3,400)	(3,400)	-	0.0%
663587 - COURIER SERVICES	21,238	11,066	22,620	22,325	(295)	-1.3%
663588 - EQUIPMENT MAINTENANCE	1,763	320	28,747	26,370	(2,377)	-8.3%
663589 - SECURITY SERVICES	100,270	36,402	82,000	84,000	2,000	2.4%
663592 - RECRUITING SERVICES	2,444	1,845	7,250	7,250	-	0.0%
663594 - DIGSAFE	72,541	43,648	73,950	71,000	(2,950)	-4.0%
663595 - OUTPLACEMENT SERVICES	-	-	2,000	2,000	-	0.0%
663598 - HR CONSULTANT SERVICES	2,025	793	2,000	2,000	-	0.0%
6635982 - TREE TRIMMING / REMOVAL	-	-	7,000	7,000	-	0.0%
6635985 - VEHICLE FLEET GPS SERVICE	-	-	7,000	30,000	23,000	328.6%
663599 - MISC OTHER SERVICES	67,975	13,750	50,485	46,235	(4,250)	-8.4%
6636 - TECHNICAL SERVICES	11,520	74	18,800	20,000	1,200	6.4%
Contracted Services Total	4,082,075	1,706,109	4,171,063	4,357,048	185,985	4.5%

Departmental Expense by Category (continued)

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

- Paving – Minor Repair – This account increased \$47,859 (15.9%), the increase was in the Water fund and was done to bring the budget more in line with prior year activity.
- Vehicle Fleet GPS Service (6635985) – This new tracking service for District vehicles is being put in place during 2017.
- Treatment Contracted Services (663585) - Up \$105,971 (see below):



South Portland and Falmouth treat the wastewater flows from Cape Elizabeth and Cumberland, respectively. The District is assessed and pays an annual fee to those communities for that service. Portland (not shown on the graph) also pays Westbrook for flows from the Riverside area. The significant increase in Falmouth is related to the debt service for upgrades of the Mill Creek Wastewater Pump Station and related forcemain.

Deferred Cost Write-Off:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
66754 - DEFERRED COST WRITE OFF	\$29,488	\$11,705	\$24,486	\$14,400	(\$10,086)	-41.2%
	\$29,488	\$11,705	\$24,486	\$14,400	(\$10,086)	-41.2%

The Deferred Cost Write-Off contains the annual amortization of studies or other items that have multi-year impacts. The budget decreased due to no new items being added and the final write-off of Pentamotion finance system was taken in 2016.

Departmental Expense by Category (continued)

Heat/Fuel Oil:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
66161 - HEATING OIL	\$260,290	\$143,982	\$257,040	\$181,398	(\$75,642)	-29.4%
661621 - PIPELINE DELIVERED PROPAN	129,660	45,238	115,932	83,340	(32,592)	-28.1%
661622 - CONTAINER DELIVERED	50,539	33,444	51,972	54,626	2,654	5.1%
66166 - UNLEADED GAS	19,780	5,906	23,900	23,400	(500)	-2.1%
Heat/Fuel Oil Total	460,269	228,570	448,844	342,764	(106,080)	-23.6%

The first three accounts in this category (66161 to 661622) involve fuel used for facilities' heat or backup generators. 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.

	2016 Assumption		2017 Assumption		% Change	
	Units	Per Unit	Units	Per Unit	Units	Per Unit
Heating Oil:						
Douglass Street	38,000	\$2.69	38,000	\$2.04	0.0%	-24.2%
Water Treatment/Ozone Plant	40,895	\$2.79	35,150	\$2.09	-14.0%	-25.1%
Westbrook WWTF	6,900	\$2.89	7,149	\$2.04	3.6%	-29.4%
Cape Elizabeth WWTF	3,181	\$2.89	2,969	\$2.04	-6.7%	-29.4%
Peaks Island WWTF	1,667	\$4.00	1,935	\$3.00	16.1%	-25.0%
Dana Court WWPS (Westbrook)	1,000	\$2.89	995	\$2.04	-0.5%	-29.4%
Water - Throttling Valve Building	700	\$2.890	950	\$2.04	35.7%	-29.4%
	92,343	\$2.78	87,148	\$2.08	-5.6%	-25.2%
Natural Gas:						
Portland (East End) WWTF	100,000	\$1.12	79,085	\$1.01	-20.9%	-10.2%

Insurance:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
6656 - VEHICAL INSURANCE	\$27,749	\$14,490	\$28,564	\$28,980	\$416	1.5%
66561 - VEHICAL INSURANCE REIMBUR	(3,225)	1,484	-	-	-	n/a
6657 - GEN LIABILITY INSURANCE	48,087	24,170	48,002	48,340	338	0.7%
66592 - DAMAGES & CLAIMS-GOODWILL	4,443	761	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	8,520	4,155	8,591	8,311	(280)	-3.3%
66594 - PROFESSION/CRIME BONDING	22,985	19,504	31,795	33,104	1,309	4.1%
66599 - PROPERTY & BOILER INSUR	83,493	40,353	79,212	78,471	(741)	-0.9%
Insurance Total	\$192,052	\$104,917	\$200,164	\$201,206	\$1,042	0.5%

Insurance costs include premiums paid on coverage for District property as well as small claims paid directly to outside parties. In 2016, the District purchased a specific cyber insurance coverage causing the increase in Professional/Crime Bonding (66594).

Departmental Expense by Category (continued)

Materials & Supplies:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
6619 - ASSET PURCHASES	\$214,698	\$83,361	\$176,311	\$188,078	\$11,767	6.7%
662012 - CRUSHED GRAVEL	983	540	573	496	(77)	-13.4%
662016 - SAND	61	-	3,936	3,820	(116)	-2.9%
662017 - SAND AND SALT	4,077	-	6,433	3,452	(2,981)	-46.3%
66202 - TOOLS	56,230	23,291	41,794	41,286	(508)	-1.2%
66203 - VENDOR PURCHASED SUPPLIES	378,173	259,855	464,821	521,223	56,402	12.1%
662041 - MATERIALS INVENTORY	188,510	100,447	220,968	217,544	(3,424)	-1.5%
662042 - SUPPLIES INVENTORY	85,682	50,513	70,090	72,117	2,027	2.9%
662042 - TOOL INVENTORY	135	600	500	350	(150)	-30.0%
66204201 - INVENTORY - QPR	4,436	-	3,500	1,500	(2,000)	-57.1%
66204202 - INVENTORY - BNKRUN GRAVEL	14,002	3,800	5,888	6,865	977	16.6%
66204203 - INVENTORY - CRUSHD GRAVEL	51,275	17,214	21,641	22,038	397	1.8%
66204204 - INVENTORY - CRUSHED STONE	1,000	984	603	682	79	13.1%
66204205 - INVENTORY - LOAM	2,402	885	2,257	2,150	(107)	-4.7%
662043 - TOOL INVENTORY	94,837	56,960	70,881	74,920	4,039	5.7%
66204301 - INVENTORY - TONER	6,352	1,309	9,490	7,040	(2,450)	-25.8%
66204302 - INVENTORY - PAPER	2,978	1,809	5,725	5,025	(700)	-12.2%
66204303 - INVENTORY-COMPUTER EQUIP	19,638	8,673	17,104	20,501	3,397	19.9%
662044 - METER INVENTORY	9,411	21,323	-	17,115	17,115	n/a
662046 - HYDRANT INVENTORY	65,777	38,138	56,398	61,820	5,422	9.6%
662047 - GARAGE INVENTORY	10,724	8,932	13,776	15,278	1,502	10.9%
66204701 - INVENTORY - UNLEADED GAS	150,498	74,289	150,480	110,580	(39,900)	-26.5%
66204702 - INVENTORY - DIESEL	71,404	33,861	78,010	60,610	(17,400)	-22.3%
66204703 - INVENTORY - TIRES	17,990	8,298	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	75,099	40,434	97,256	95,105	(2,151)	-2.2%
66206 - COMPUTER RELATED EQUIP	77,702	30,717	68,715	70,391	1,676	2.4%
Materials & Supplies Total	1,604,074	866,233	1,602,150	1,634,986	32,836	2.0%

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 increase in Vendor Purchased supplies is due to the purchase of spare bulbs and parts for the Ozone/UV Facility.

The assumptions for vehicle fuel were:

Fuel Type	2016 Assumption Units	2016 Assumption Per Unit	2017 Assumption Units	2017 Assumption Per Unit	% Change Units	Per Unit
Diesel	29,000	\$2.69	29,000	\$2.09	0.0%	-22.3%
Unleaded Gas	57,000	\$2.64	57,000	\$1.94	0.0%	-26.5%
	86,000		86,000		0.0%	

Departmental Expense by Category (continued)

Other Expense:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
663541 - SAFETY EXPENSES	\$194	\$69	\$2,500	\$3,220	\$720	28.8%
6641 - BUILDING/REAL PROP RENT	5,600	-	5,600	5,600	-	0.0%
66411 - INTERNAL RENTAL CHARGES	48,600	24,300	48,600	48,600	-	0.0%
6642 - EQUIPMENT RENT	14,804	2,412	10,063	13,537	3,474	34.5%
66601 - PUBLIC RELATIONS	4,691	1,799	7,800	8,150	350	4.5%
66609 - OTHER ADVERTISING	13,964	25,702	39,876	25,876	(14,000)	-35.1%
6670 - BAD DEBT EXPENSE	23,514	19,200	38,400	38,400	-	0.0%
6675111 - IN STATE TRAINING/CONF	71,742	35,502	93,357	92,281	(1,076)	-1.2%
6675112 - OUT OF STATE TRAINING/CON	37,814	17,473	50,750	51,950	1,200	2.4%
667513 - DUES	71,077	33,519	78,354	79,372	1,018	1.3%
667514 - PROFESSIONAL LICENSES	9,487	3,729	16,528	12,526	(4,002)	-24.2%
667515 - PERIODICAL SUBSCRIPTIONS	5,401	2,470	7,201	7,131	(70)	-1.0%
667516 - PERMITS	26,093	7,072	29,813	29,781	(32)	-0.1%
667517 - PLANT OPER LICENSE FEES	-	-	75	75	-	0.0%
667518 - REGULATORY REQUIRED FEES	11,558	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	221,580	122,791	222,945	210,553	(12,392)	-5.6%
667522 - POSTAGE - INTERNAL	14,910	8,303	19,340	17,235	(2,105)	-10.9%
667523 - POSTAGE - EXPRESS DELIVER	1,737	1,822	2,550	2,050	(500)	-19.6%
667531 - PRINTING COSTS	54,663	24,864	64,668	65,976	1,308	2.0%
667533 - FORMS STOCK	1,363	-	650	1,300	650	100.0%
667552 - SAFETY TRAINING	5,057	1,157	3,800	4,900	1,100	28.9%
667553 - DOT SUBSTANCE ABUSE	1,463	173	2,000	2,000	-	0.0%
667554 - EPA / OSHA COMPLIANCE	2,063	290	3,408	3,408	-	0.0%
667555 - SAFETY EXPENSES	10,695	6,666	16,315	19,525	3,210	19.7%
667556 - FREIGHT CHARGES (STOCK)	9,620	4,684	5,100	6,500	1,400	27.5%
667561 - WATERSHED GRANTS/SUPPORT	303,764	66,194	45,150	38,550	(6,600)	-14.6%
6675611 - GRANTS - PASS-THROUGH	5,000	-	-	-	-	n/a
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667591 - UNIFORMS	2,526	1,178	2,800	2,000	(800)	-28.6%
667592 - FOOD SUPPLIES	4,234	1,037	5,995	5,795	(200)	-3.3%
667598 - GEN MANAGER CONTINGENCY	26,267	349	65,000	55,000	(10,000)	-15.4%
6675981 - GEN MNG - TRUSTEES	6,804	5,688	11,450	11,450	-	0.0%
6675982 - GEN MNG - COMMUNITY	17,459	22,307	24,615	24,615	-	0.0%
667599 - OTHER MISCELLANEOUS	21,966	13,983	2,150	2,100	(50)	-2.3%
6676 - EXPENSE OFFSET	(154,292)	(102,070)	(212,100)	(215,700)	(3,600)	1.7%
6706 - AMORT OF U P ACQ ADJUSTS	17,000	8,500	17,000	17,000	-	0.0%
Other Expense Total	920,918	363,663	748,253	707,256	(40,997)	-5.5%

Other expenses include postage (\$229,838), training and conferences (\$144,23) and dues (\$79,372). The Expense Offset (6676) contains expenses transferred to other departments or capital projects.

Other Advertising expense was reduced as the amount of dollars allocated to the 'Water. What's It Worth' campaign was reduced. Postage is lower due to the success of the encouraging more customers to receive their bills electronically.

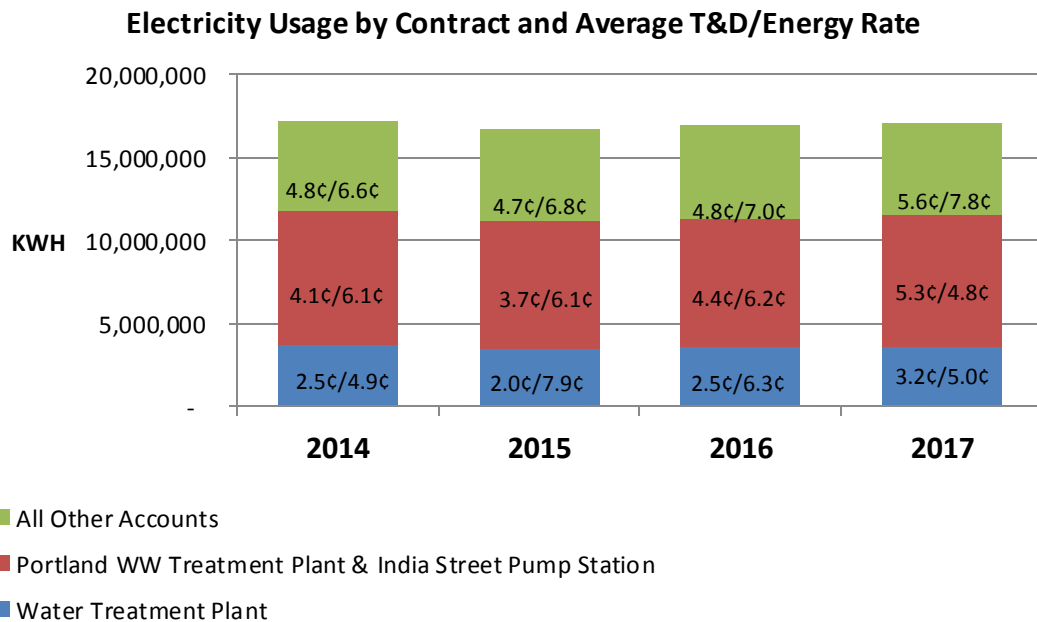
Departmental Expense by Category (continued)

Purchased Power:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
66151 - POWER - LARGE ENERGY	\$730,387	\$294,209	\$704,346	\$557,116	(\$147,230)	-20.9%
66152 - POWER - LARGE T&D	385,008	192,361	433,640	534,336	100,696	23.2%
66153 - POWER - MEDIUM ENERGY	320,086	167,779	328,275	368,770	40,495	12.3%
66154 - POWER - MEDIUM T&D	194,509	104,493	205,609	244,628	39,019	19.0%
66155 - POWER - SMALL ENERGY	62,116	37,983	65,696	61,118	(4,578)	-7.0%
66156 - POWER - SMALL T&D	58,149	32,629	61,152	65,588	4,436	7.3%
66157 - POWER - OTHER CHARGES	19,981	6,845	120	174,095	173,975	144979.2%
66158 - LOAD RESPONSE	(19,803)	-	(12,744)	(14,000)	(1,256)	9.9%
Purchased Power Total	1,750,433	836,299	1,786,094	1,991,651	205,557	11.5%

Electricity is delivered through the Central Maine Power transmission & distribution (T&D) system. The average 2017 rate per kwh ranges from \$0.046 to \$0.085.

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 October 2017. The contract for the Water Treatment Plant has been signed through November 2017 and the contracts for Wastewater Treatment Plant and India Street Pump Station are in effect through October 2019. The contracts for these three facilities have different prices for on and off peak with the rate fixed for 66% and 60%, respectively. The chart below shows the rates for these accounts as well as the average rates for the remaining 101 small and medium sized accounts.



Departmental Expense by Category (continued)

Regulatory/Taxes:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
670821 - STANDISH REAL ESTATE TAX	\$40,502	\$20,942	\$42,900	\$42,900	\$0	0.0%
670822 - OTHER R/E TAX(NON-STANDI)	7,245	5,219	7,400	7,400	-	0.0%
670823 - PUC ASSESSMENT	83,721	75,015	83,750	80,000	(3,750)	-4.5%
670824 - ME DRINKING WTR PROGRAM	61,830	68,701	61,796	68,665	6,869	11.1%
670825 - PUC PUBLIC ADVOCATE	9,371	11,118	19,050	19,050	-	0.0%
Regulatory/Taxes Total	202,669	180,995	214,896	218,015	3,119	1.5%

The District pays real estate taxes (670821) and personal property taxes (670822) to the Town of Standish for land and other property in the town. 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 utilities revenues and time spent on matters related to each industry sector.

Telephone/Other Utilities:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
66101 - WATER	\$148,907	\$65,790	\$145,904	\$131,452	(\$14,452)	-9.9%
66102 - WASTEWATER	27,211	9,520	26,088	23,500	(2,588)	-9.9%
66103 - STORMWATER CHARGES	-	16,736	24,118	30,801	6,683	27.7%
66111 - TELEPHONE LINES	29,747	13,500	29,061	26,303	(2,758)	-9.5%
66112 - DATA LINES	71,654	41,040	83,814	96,968	13,154	15.7%
66113 - CELLULAR PHONES	51,615	18,966	40,500	38,770	(1,730)	-4.3%
66114 - PAGERS	2,436	2,429	1,153	488	(665)	-57.7%
Tele/Other Utilities Total	331,570	167,981	350,638	348,282	(2,356)	-0.7%

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:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
66501 - TRANSPORTATION - INTERNAL	\$610,438	\$309,446	\$713,197	\$704,428	(\$8,769)	-1.2%
665019 - TRANS INTERNAL INACTIVE	470,937	228,013	399,689	413,833	14,144	3.5%
66502 - TRANSPORTATION - EXTERNAL	55,537	18,049	77,946	70,507	(7,439)	-9.5%
66503 - MILEAGE REIMBURSEMENT	20,163	9,411	24,516	21,659	(2,857)	-11.7%
Transportation Total	1,157,075	564,919	1,215,348	1,210,427	(4,921)	-0.4%

A standard 40-hour week is charged for most vehicles, when the vehicle is in used it is charged to Transportation Internal (66501) and the balance to the Inactive (665019) account. Transportation External (66502) involves vehicles rented from outside vendors. Mileage Reimbursement (66503) is paid to employees who use their own vehicles when conducting District business. Charges on internal costs decreased due to lower vehicle pool costs such as fuel.

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

	2015 Actual	2016 Projected	2017 Goal
% of System Flushed	32%	33%	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
- ☐ Start in late March, Weather Permitting. During May and into October Two Crews Work 4-10 Hr. Days 8 PM- 6 AM Mon-Thur.
- ☐ Successfully moved some flushing in residential areas to daytime during 2016, to reduce the number of days employees are assigned to night shifts

Water Services – Purpose Statement

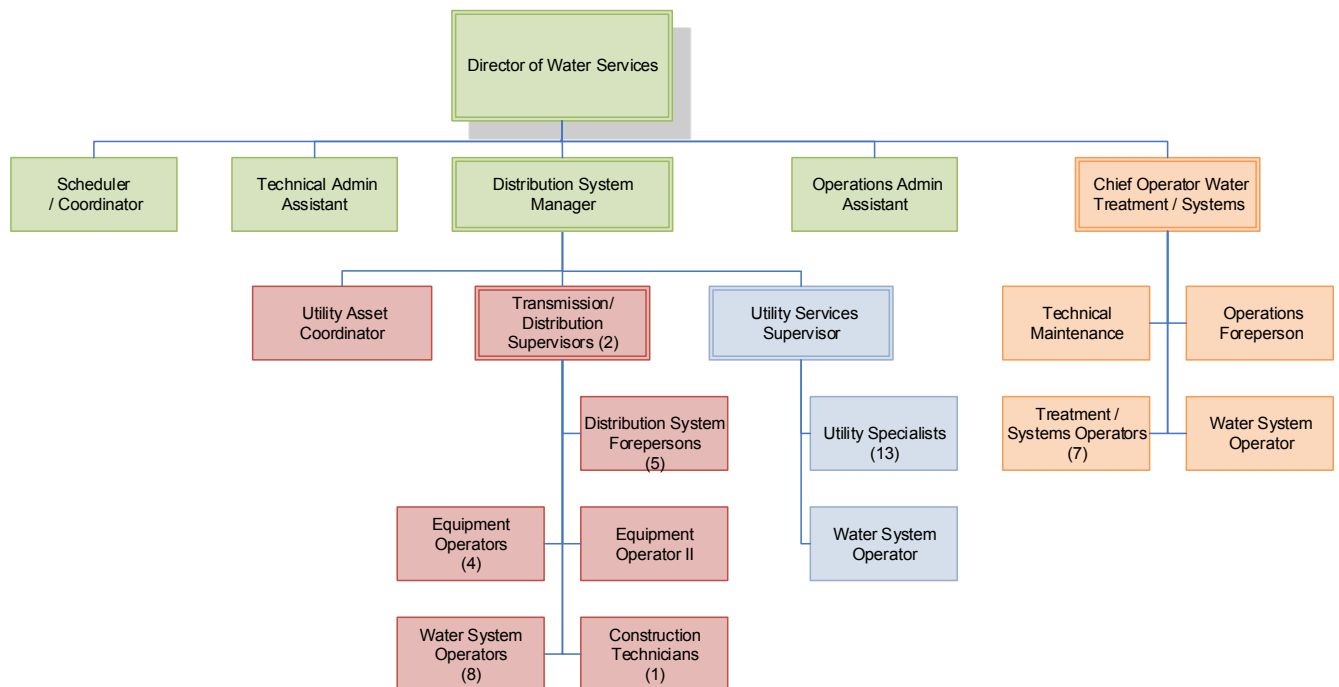
To operate and maintain water system infrastructure including the treatment, water storage and distribution systems.

Core Services

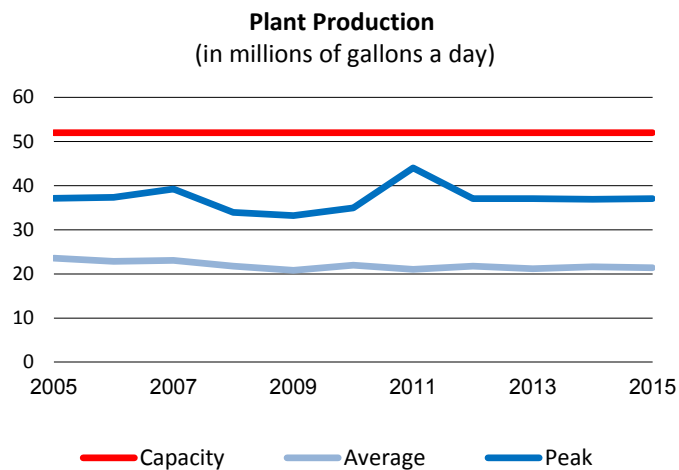
Water Operations is responsible for operating and maintaining the Sebago Lake and Steep Falls Well treatment and water distribution systems by providing the following services:

- 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).

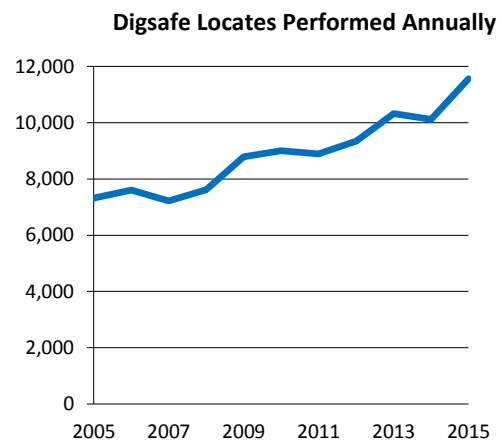
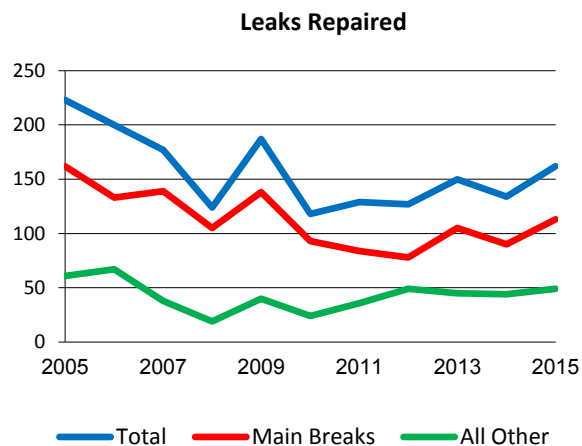
Water Operations has a five-person group (Administration Group- A1; **green** in organization chart) that directs, oversees and provides administrative support.



Key Statistics



Water Supply	Surface – 99%
	Groundwater -1%
Water Treatment	Ozone, Ultraviolet, Chloramination, Corrosion Control, Fluoridation
Water Mains	990 miles
Valves	11,542
Hydrants	5,048
Service Lines	54,022
Water Storage	10 (+2 non-active)
Booster Stations	5
Backflow Devices	4,300

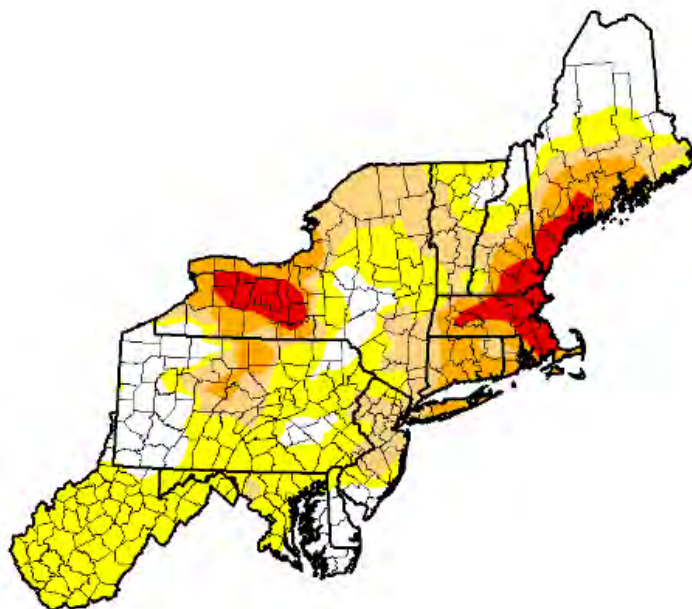


- Plant Production reflects the long-term trend of declining water consumption.
- Leaks repaired each year vary by number/severity of leaks and is a significant budgetary variable.
- Digsafe locates includes marking of water and wastewater infrastructure for others who are working near our assets.

Performance Benchmarks

	2015 Actual	2016 Projected	2017 Goal
Corporate Goal – Public Health			
Compliance of Water Regulations	100%	100%	100%
Avg. Distribution Chlorine Residual	1.4 mg/l	1.0 mg/l	1.0 mg/l
Corporate Goal – Public Safety			
Meetings with Municipal Fire Chiefs	2	2	2
Fire Service Outage Index	3.6	3	3
Corporate Goal – Reliability			
Water Outage Index	12.8	< 20	< 20
Leaks per 100 mile of main	12.4	< 20	< 20
Transmission valves exercised	228	398	398
Distribution valves exercised	104	200	200
Customer Appointments On-time	99.9%	99.8%	99.8%
Corporate Goal – Affordability			
Water Facility Maintenance Ratio	70% / 30%	70% / 30%	75% / 25%
Department Cost / million gal	\$1,040	\$1,031	\$1,066
Treatment Cost / million gal	\$293	\$306	\$310
Unaccounted for Water %	14.8%	< 10%	< 10%
Corporate Goal – Employees and Work Environment			
Employee Training Hours	83	80	80

**U.S. Drought Monitor
Northeast
September 27, 2016**



Past Accomplishments

Water Field

- Completed our ninth 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 has been promoted to Utility Specialist and another to Scheduler/Coordinator.
- Continued management of the Transmission Main Right-of-Way Maintenance Program. Last year, an additional mile was cleared for a total of approximately 11 ½ miles cleared over the past 6 years. Additionally, areas that were cleared in previous years were mowed and bush hogged to ensure the previous investments in clearing were properly maintained.



- Purchased a mechanical valve turner (Valve Boss©) for the transmission valve turning program. This equipment increased productivity in the valve turning program and allowed operations to institute a critical distribution valve turning program for the first time.



- Purchased Bazooka© de-chlorination units for the water main flushing crews and leak repair crews. The unit allows staff to dial in the amount of dechlorinating agent needed based on discharge flow and chlorine residual. Discharges through this unit ensured compliance with Municipal Separate Storm Sewer Systems (MS4) requirements.



Past Accomplishments (continued)

- Updated procedures to sample and test distribution system after all main breaks for Total Coliform bacteria, to confirm quality of the repair procedures and ensure that the water is safe for consumption.

Water Plant

- Zero reportable accidents or lost time injuries.
- Met all Primary and Secondary Regulations associated with the Surface Water Treatment Rules and achieved >99.99% compliance with UV treatment regulation associated to Long Term 2 Enhanced Surface Water Treatment Regulations, surpassing EPA's 95% compliance requirement.

- Completed an important maintenance project involving the replacement of SLWTF Standby Generator #1 Cooling Tower core.



- Successfully limited SLWTF demand to a minimum (<10kW) during ISO-NE's peak annual demand hour, which sets Forward Capacity charges beginning June 2017.

- Completed the Installation of a larger Off Gas Destruct units for the Ozone System, thus wrapping up the UV-Ozone Plant Upgrade.



2017 Projects and Initiatives

Corporate Goal – Public Health

- Corporate Initiative
 - Improve the communication of water system incidents with customers using Cumberland County Emergency Management Agency's Code Red, The Health Alert Network (HAN), and the District's Critical Customers Contact List.
- 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 ozone system failure.
 - Ozone system: Install system to automatically control open loop cooling water system for Ozone generators to prevent generator faults.

Corporate Goal – Public Safety

- Departmental Initiative
 - Continue to provide flow testing as requested by municipal fire departments to verify available flow in targeted areas within their communities.
 - Provide outreach training to 2 fire departments in all aspects of the service we provide to their respective communities.

Corporate Goal – Reliability

- Corporate Initiative
 - Submit the Phase III Report for the AWWA Partnership for Safe Water for Distribution Systems.
- Departmental Initiatives
 - Continue to Right-of-way Maintenance Program; initiate tracking of current conditions and make plans to repair significant deficiencies.

Corporate Goal – Reliability (continued):

- Continue to replace 1-2 transmission valves each year.



- Continue to sample and test soils during water main breaks for corrosivity as a decision making tool for future water main replacement projects. Review current data with pipeline experts to better understand corrosive soils.
- Complete preliminary engineering to update Sebago Lake Intake Screens.
- SLWTF: Replace Standby Generator #2 cooling tower coil to ensure the availability of backup power during extreme weather events.

- SLWTF: Review liquid chemical addition systems and update Capital Improvement Plans to define replacement plans and ensure continued operation.



- SLWTF: Replace three remaining obsolete VFDs in the Raw Water and Standish Pump system replace obsolete equipment.

Corporate Goal – Affordability

- Corporate Initiative
 - O&M Water fund expenses increase no more than 2.5%
- Departmental Initiatives
 - Rebuild North Windham Pump #1 to increase energy efficiency

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 creating lock-out tag-out procedures and fall protection.

- Active Confined Space Team holds 5 training exercises



- Departmental Initiatives
 - Improve our existing training process for newly hired Water System Operators and Administrative Staff in preparation for obtaining Operator's Licensing.
 - Continue second year of daytime flushing to reduce time staff are assigned to overnight schedules; Incorporate municipal zoning maps to identify residential boundaries where daytime flushing can occur.

Financial Overview

The Water Services Budget for 2017 has increased by 2.2% or \$175,966. The majority of the increase is attributed to wages and benefits, accounting for \$127,407 or 72% of the increase.

The A1 - Water Administration area increased 4.3%, with labor and benefits accounting for 93% of the \$21,000 increase.

A2 – At \$77,185, Water Transmission & Distribution is increasing by 2.0%. Personnel related expenses are increasing by \$46,397 and are a result of salary increases and increased employee benefit costs. No new staffing changes are proposed for A2 in 2017. Other increases in Mains & Valves Maintenance (\$52,738) and Hydrant Maintenance (\$36,085) are a result of increased efforts in proactive infrastructure replacements coordinated with municipal and Maine DOT projects along with leak repairs.

The A3 – Treatment area has an overall increase of 0.7% or \$16,915. One area of significant cost savings is projected to be the cost of heating oil. While overall usage is expected to decrease slightly (less 500 gallons), the cost per gallon is expected to drop from \$2.79/gallon to \$2.09/gallons, or 25%. This represents an annual cost savings of \$41,569. The bulk chemicals uses are expected to remain consistent; and the overall price/unit is projected to remain stable. The 21.8% increase (\$10,310) in the Telephone/Utilities budget is related to an upgrade of the communication fiber from 20 MB to 1024 MB (1GB), which will greatly improve the reliability and speed of the PWD Intranet connection to Lake area facilities. The increase in vendor purchase supplies (10.6% or \$12,464) is related to first time purchases of spare parts for the new ozone system, and the first time purchase of UV system mercury lamps, which will need to be replaced in 2018.

A6 – The Utility Services 2017 budget is increasing by \$60,866, or 4.4%. Wages and benefits are increasing (\$41,701) due to contractual obligations and the continued use outside companies for construction inspection, which is a capital expense. The associated increase in transportation expenses (\$8,771) is also related to vehicle use being allocated to more O&M tasks.

**1898 Hydrant
recently removed
from service**



Water Services: Total

Financial Summary:

Column 1	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
A1 - Water Administration	\$473,467	\$241,865	\$489,694	\$510,694	\$21,000	4.3%
A2 - Wtr Transmission/Distrib	3,957,829	1,659,190	3,831,363	3,908,548	77,185	2.0%
A3 - Water Treatment	2,286,579	1,118,059	2,406,002	2,422,917	16,915	0.7%
A6 - Water Utility Services	1,403,981	762,973	1,377,799	1,438,665	60,866	4.4%
Grand Total	8,121,856	3,782,087	8,104,858	8,280,824	175,966	2.2%
Expense Type:						
Salaries & Wages	2,922,625	1,470,073	2,949,033	3,024,812	75,779	2.6%
Employee Benefits	1,318,727	706,504	1,407,324	1,458,952	51,628	3.7%
Chemicals	361,685	173,443	394,650	395,214	564	0.1%
Contracted Services	1,513,199	461,987	1,442,136	1,443,800	1,664	0.1%
Heat/Fuel Oil	132,581	72,273	130,551	88,982	-41,569	-31.8%
Insurance	31,627	13,194	27,374	26,387	-987	-3.6%
Materials & Supplies	565,394	345,490	503,979	546,307	42,328	8.4%
Other Expense	37,724	10,917	39,014	46,069	7,055	18.1%
Purchased Power	447,001	157,300	398,996	423,001	24,005	6.0%
Tele/Other Utilities	69,606	33,188	70,503	84,013	13,510	19.2%
Transportation	721,687	337,718	741,298	743,287	1,989	0.3%
Grand Total	8,121,856	3,782,087	8,104,858	8,280,824	175,966	2.2%
Headcount:						
Full-Time	53	53	53	53	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	53	53	53	53	0	0.0%

**Cleaning
Rocky Hill
Water Storage
Reservoir #1**



	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$527,493	\$273,329	\$562,486	\$568,454	\$5,968	1.1%
660121 - WAGES/REGULAR UNION	1,880,033	982,314	1,918,490	1,991,887	73,397	3.8%
660122 - WAGES/OVERTIME UNION	289,878	128,747	238,095	246,239	8,144	3.4%
660123 - WAGES/DOUBLETIME UNION	35,380	14,793	28,925	28,287	(638)	-2.2%
660124 - WAGES/STANDBY TIME UNION	103,681	48,464	90,877	94,292	3,415	3.8%
660131 - WAGES - REGULAR - TEMPS	30,002	14,872	32,160	56,842	24,682	76.7%
660132 - WAGES - OVERTIME- TEMPS	52	100	-	-	-	n/a
660136 - CONTRACTED - TEMP	(12,717)	7,454	78,000	38,811	(39,189)	-50.2%
66014 - VACATION ACCRUAL	1,666	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	21,122	-	-	-	-	n/a
66351 - CONTRACTED TEMPORARIES	46,035	-	-	-	-	n/a
Salaries & Wages Total	2,922,625	1,470,073	2,949,033	3,024,812	75,779	2.6%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	212,807	110,021	219,636	228,425	8,789	4.0%
660405 - SAFETY/WHY PROGRAM ITEMS	13,481	3,202	14,495	10,745	(3,750)	-25.9%
660411 - MEALS ALLOWANCE	9,190	3,770	6,099	7,081	982	16.1%
660413 - PWD TRAINING PROGRAM	39	-	-	-	-	n/a
660418 - STIPENDS	5,100	5,600	5,000	5,500	500	10.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	10,370	98	-	-	-	n/a
660491 - FRINGE BENEFITS-REG/SAL	1,067,740	583,813	1,162,094	1,207,201	45,107	3.9%
Employee Benefits Total	1,318,727	706,504	1,407,324	1,458,952	51,628	3.7%
Chemicals						
66181 - AMMONIA	28,339	13,361	28,185	26,715	(1,470)	-5.2%
66182 - CAUSTIC SODA	64,197	28,777	72,295	88,513	16,218	22.4%
66183 - FLUORINE COMPOUND	58,029	25,170	54,096	53,081	(1,015)	-1.9%
66184 - ZINC ORTHOPHOSPHATE	76,061	36,238	84,954	75,093	(9,861)	-11.6%
66185 - SODIUM HYPOCHLORITE	81,438	40,137	94,325	98,519	4,194	4.4%
661892 - LIQUID OXYGEN (LOX)	53,261	29,760	60,795	53,293	(7,502)	-12.3%
661899 - OTHER CHEMICALS	360	-	-	-	-	n/a
Chemicals Total	361,685	173,443	394,650	395,214	564	0.1%
Contracted Services						
6631 - ENGINEERING SERVICES	5,302	16,804	88,850	88,850	-	0.0%
66352 - CONSTRUCTION SERVICES	12,192	-	2,500	4,438	1,938	77.5%
663521 - TRAFFIC CONTROL	70,320	24,463	51,768	54,079	2,311	4.5%
6635221 - PAVING - MINOR REPAIR	672,597	112,506	301,291	349,150	47,859	15.9%
663523 - SIDEWALK	21,132	8,164	16,353	18,653	2,300	14.1%
663524 - STREET OPENING	59,063	30,557	59,578	63,645	4,067	6.8%
663525 - CONTRACTOR CONSTRUCTION	476,890	174,447	614,036	583,486	(30,550)	-5.0%
663527 - EMERGENCY RESPONSE- FEMA	-	-	360	360	-	0.0%
66353 - REPAIR SERVICES	9,039	5,657	19,161	33,500	14,339	74.8%
66354 - MAINTENANCE SERVICES	106,490	40,515	150,977	144,548	(6,429)	-4.3%
663542 - LARGE METER TESTING	1,320	11,219	25,000	12,500	(12,500)	-50.0%
663546 - MAINTENANCE - SNOW REMOVL	48,271	15,366	52,000	32,215	(19,785)	-38.0%
663561 - COMPUTER LICENSES	17,307	16,911	17,652	17,288	(364)	-2.1%
663574 - DISPOSAL SERVICES	3,456	1,806	5,863	4,753	(1,110)	-18.9%
663587 - COURIER SERVICES	2,113	1,106	2,250	2,215	(35)	-1.6%
663588 - EQUIPMENT MAINTENANCE	1,763	320	21,997	19,620	(2,377)	-10.8%
663594 - DIGSAFE	2,250	1,000	-	-	-	n/a
6635982 - TREE TRIMMING / REMOVAL	-	-	7,000	7,000	-	0.0%
663599 - MISC OTHER SERVICES	3,694	1,146	5,500	7,500	2,000	36.4%
Contracted Services Total	1,513,199	461,987	1,442,136	1,443,800	1,664	0.1%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Heat/Fuel Oil						
66161 - HEATING OIL	\$119,658	\$62,697	\$116,118	\$75,402	(\$40,716)	-35.1%
661622 - CONTAINER DELIVERED	12,923	9,576	14,433	13,580	(853)	-5.9%
Heat/Fuel Oil Total	132,581	72,273	130,551	88,982	(41,569)	-31.8%
Insurance						
66599 - PROPERTY & BOILER INSUR	31,627	13,194	27,374	26,387	(987)	-3.6%
Insurance Total	31,627	13,194	27,374	26,387	(987)	-3.6%
Materials & Supplies						
6619 - ASSET PURCHASES	22,334	2,054	22,061	18,328	(3,733)	-16.9%
662012 - CRUSHED GRAVEL	899	440	573	496	(77)	-13.4%
662014 - CRUSHED STONE	-	69	-	-	-	n/a
662015 - LOAM	84	31	-	-	-	n/a
662016 - SAND	61	-	3,936	3,820	(116)	-2.9%
662017 - SAND AND SALT	4,077	-	6,433	3,452	(2,981)	-46.3%
66202 - TOOLS	41,163	18,971	23,644	23,386	(258)	-1.1%
66203 - VENDOR PURCHASED SUPPLIES	76,497	103,723	79,921	107,123	27,202	34.0%
662041 - MATERIALS INVENTORY	155,979	67,787	178,243	174,119	(4,124)	-2.3%
662042 - SUPPLIES INVENTORY	39,995	25,953	19,440	21,367	1,927	9.9%
66204201 - INVENTORY - QPR	4,436	-	3,500	1,500	(2,000)	-57.1%
66204202 - INVENTORY - BNKRUN GRAVEL	14,002	3,800	5,888	6,865	977	16.6%
66204203 - INVENTORY - CRUSHED GRAVEL	51,275	17,214	21,641	22,038	397	1.8%
66204204 - INVENTORY - CRUSHED STONE	1,000	984	603	682	79	13.1%
66204205 - INVENTORY - LOAM	2,402	885	2,257	2,150	(107)	-4.7%
662043 - TOOL INVENTORY	65,284	36,926	43,831	47,420	3,589	8.2%
66204301 - INVENTORY - TONER	877	-	1,290	840	(450)	-34.9%
66204302 - INVENTORY - PAPER	124	90	-	-	-	n/a
66204303 - INVENTORY-COMPUTER EQUIP	2,122	1,802	1,800	2,537	737	40.9%
662044 - METER INVENTORY	2,882	18,670	-	17,115	17,115	n/a
662045 - TRUCK INVENTORY	(2,800)	-	-	-	-	n/a
662046 - HYDRANT INVENTORY	60,650	37,061	56,398	61,820	5,422	9.6%
662047 - GARAGE INVENTORY	2,751	1,931	2,676	2,628	(48)	-1.8%
66205 - CONSUMABLE SUPPLIES	7,934	4,712	14,756	13,271	(1,485)	-10.1%
66206 - COMPUTER RELATED EQUIP	11,366	1,623	15,088	15,350	262	1.7%
663564 - COMPUTER-RELATED EQUIP	-	764	-	-	-	n/a
Materials & Supplies Total	565,394	345,490	503,979	546,307	42,328	8.4%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Other Expense						
663541 - SAFETY EXPENSES	\$194	\$69	\$2,500	\$3,220	\$720	28.8%
6641 - BUILDING/REAL PROP RENT	5,600	-	5,600	5,600	-	0.0%
6642 - EQUIPMENT RENT	10,587	489	3,813	7,337	3,524	92.4%
6675111 - INSTATE TRAINING/CONF	25,033	14,986	22,657	25,331	2,674	11.8%
6675121 - IN STATE CONFERENCES	629	701	1,000	200	(800)	-80.0%
667513 - DUES	1,524	1,093	4,286	4,517	231	5.4%
667514 - PROFESSIONAL LICENSES	4,546	971	4,728	4,801	73	1.5%
667515 - PERIODICAL SUBSCRIPTIONS	-	-	200	200	-	0.0%
667516 - PERMITS	425	425	781	781	-	0.0%
667521 - POSTAGE - THIRD PARTY	2,189	12	4,003	4,378	375	9.4%
667522 - POSTAGE - INTERNAL	166	143	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	-	69	200	200	-	0.0%
667531 - PRINTING COSTS	6,844	3,309	8,418	8,676	258	3.1%
667552 - SAFETY TRAINING	545	220	-	-	-	n/a
667554 - EPA / OSHA COMPLIANCE	2,028	290	3,408	3,408	-	0.0%
667555 - SAFETY EXPENSES	517	-	2,000	2,000	-	0.0%
667591 - UNIFORMS	-	192	-	-	-	n/a
667592 - FOOD SUPPLIES	405	111	520	520	-	0.0%
667599 - OTHER MISCELLANEOUS	1,692	437	-	-	-	n/a
6676 - EXPENSE OFFSET	(25,200)	(12,600)	(25,200)	(25,200)	-	0.0%
Other Expense Total	37,724	10,917	39,014	46,069	7,055	18.1%
Purchased Power						
66151 - POWER - LARGE ENERGY	261,067	61,822	220,218	178,082	(42,136)	-19.1%
66152 - POWER - LARGE T&D	81,025	38,573	88,741	116,099	27,358	30.8%
66153 - POWER - MEDIUM ENERGY	37,296	17,680	38,851	44,096	5,245	13.5%
66154 - POWER - MEDIUM T&D	26,324	13,470	25,211	29,434	4,223	16.8%
66155 - POWER - SMALL ENERGY	15,764	10,154	16,855	15,446	(1,409)	-8.4%
66156 - POWER - SMALL T&D	15,234	8,828	16,164	17,203	1,039	6.4%
66157 - POWER - OTHER CHARGES	19,856	6,773	-	29,641	29,641	n/a
66158 - LOAD RESPONSE	(9,565)	-	(7,044)	(7,000)	44	-0.6%
Purchased Power Total	447,001	157,300	398,996	423,001	24,005	6.0%
Tele/Other Utilities						
66101 - WATER	3,634	1,683	3,600	3,650	50	1.4%
66102 - WASTEWATER	27,211	9,520	24,588	23,500	(1,088)	-4.4%
66103 - STORMWATER CHARGES	-	(820)	1,728	-	(1,728)	-100.0%
66111 - TELEPHONE LINES	1,912	1,117	1,842	2,246	404	21.9%
66112 - DATA LINES	21,417	14,462	26,058	40,854	14,796	56.8%
66113 - CELLULAR PHONES	14,307	6,070	12,540	13,615	1,075	8.6%
66114 - PAGERS	1,125	1,156	147	148	1	0.7%
Tele/Other Utilities Total	69,606	33,188	70,503	84,013	13,510	19.2%
Transportation						
66501 - TRANSPORTATION - INTERNAL	412,628	191,527	418,996	417,058	(1,938)	-0.5%
665019 - TRANS INTERNAL INACTIVE	275,816	132,139	258,034	271,617	13,583	5.3%
66502 - TRANSPORTATION - EXTERNAL	29,280	11,503	60,546	51,607	(8,939)	-14.8%
66503 - MILEAGE REIMBURSEMENT	3,937	2,549	3,722	3,005	(717)	-19.3%
66504 - MTA TRANS-PASS TOLL FEES	26	-	-	-	-	n/a
Transportation Total	721,687	337,718	741,298	743,287	1,989	0.3%
Grand Total	8,121,856	3,782,087	8,104,858	8,280,824	175,966	2.2%

Water Services: Water Administration (A1)

Financial Summary:

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$305,441	\$153,790	\$308,876	\$320,957	\$12,081	3.9%
Employee Benefits	156,814	82,890	168,538	176,013	7,475	4.4%
Materials & Supplies	790	929	2,488	1,588	(900)	-36.2%
Other Expense	6,959	2,403	7,001	8,701	1,700	24.3%
Tele/Other Utilities	2,387	1,546	1,920	2,340	420	21.9%
Transportation	1,076	307	871	1,095	224	25.7%
Grand Total	473,467	241,865	489,694	510,694	21,000	4.3%
Programs:						
98 - Training	17,303	11,332	21,267	23,219	1,952	9.2%
99 - Administration	456,164	230,533	468,427	487,475	19,048	4.1%
Grand Total	473,467	241,865	489,694	510,694	21,000	4.3%
Funds:						
10 - General	82,350	38,907	81,092	89,141	8,049	9.9%
20 - Water General	389,785	202,813	406,898	419,849	12,951	3.2%
50 - Wastewater General	1,332	145	1,704	1,704	-	0.0%
Grand Total	473,467	241,865	489,694	510,694	21,000	4.3%
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%

Water Services: Water Transmission/Distribution (A2)

Financial Summary:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$1,174,345	\$592,409	\$1,213,068	\$1,238,502	\$25,434	2.1%
Employee Benefits	504,629	275,023	546,895	567,858	20,963	3.8%
Contracted Services	1,344,805	362,891	1,146,286	1,168,684	22,398	2.0%
Materials & Supplies	358,319	172,299	328,183	335,652	7,469	2.3%
Other Expense	30,558	11,273	18,676	24,228	5,552	29.7%
Tele/Other Utilities	11,912	4,818	9,972	10,659	687	6.9%
Transportation	533,261	240,477	568,283	562,965	-5,318	-0.9%
Grand Total	3,957,829	1,659,190	3,831,363	3,908,548	77,185	2.0%
Programs:						
1 - Seasonal Mains	100,388	58,568	89,567	99,870	10,303	11.5%
10 - General Distribution	232,023	109,524	233,827	232,201	-1,626	-0.7%
11 - Mains & Valves Maint	1,505,071	467,978	1,254,496	1,307,234	52,738	4.2%
12 - Services Maintenance	660,691	249,837	626,048	641,029	14,981	2.4%
14 - Distribution Flushing	395	3,846	0	0	0	n/a
15 - Digsafe Locates	1,656	1,236	0	0	0	n/a
17 - Hydrant Maintenance	258,542	135,633	267,336	303,421	36,085	13.5%
2 - Meter Reading	45,475	2,056	25,866	27,166	1,300	5.0%
20 - Meter Service	1,561	218	0	0	0	n/a
4 - Paving (Mains)	193,368	112,694	313,719	312,787	-932	-0.3%
44 - WW Pumping	4,665	10,694	0	801	801	n/a
45 - WW Treatment	445	354	1,231	1,154	-77	-6.3%
90 - Vehicles	27,007	21,285	29,674	28,097	-1,577	-5.3%
91 - Snow Removal	28,270	5,751	32,707	33,350	643	2.0%
92 - Bulk Materials Adjustment	42,525	9,691	354	0	-354	-100.0%
98 - Training	84,873	67,308	83,583	88,883	5,300	6.3%
99 - Administration	770,874	402,517	872,955	832,360	-40,595	-4.7%
Grand Total	3,957,829	1,659,190	3,831,363	3,908,548	77,185	2.0%
Funds:						
10 - General	606,548	324,588	581,295	593,329	12,034	2.1%
20 - Water General	3,343,147	1,318,731	3,246,533	3,312,951	66,418	2.0%
30 - Water Standish	3,024	4,823	2,304	313	-1,991	-86.4%
51 - WW Cape Elizabeth	1,925	8,583	0	0	0	n/a
57 - WW Portland	3,185	354	1,231	1,955	724	58.8%
62 - WW Westbrook	0	738	0	0	0	n/a
64 - WW Joint Westbrook	0	1,373	0	0	0	n/a
Grand Total	3,957,829	1,659,190	3,831,363	3,908,548	77,185	2.0%
Headcount:						
Full-Time	23	22	22	22	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	23	22	22	22	0	0.0%

Water Services: Water Treatment (A3)

Financial Summary:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$668,590	\$336,468	\$675,950	\$687,550	\$11,600	1.7%
Employee Benefits	306,462	161,708	327,276	335,429	8,153	2.5%
Chemicals	361,685	173,443	394,650	395,214	564	0.1%
Contracted Services	162,341	85,411	256,353	250,496	(5,857)	-2.3%
Heat/Fuel Oil	132,581	72,273	130,551	88,982	(41,569)	-31.8%
Insurance	31,627	13,194	27,374	26,387	(987)	-3.6%
Materials & Supplies	118,072	88,629	117,088	129,552	12,464	10.6%
Other Expense	(19,917)	(9,256)	(8,709)	(8,789)	(80)	0.9%
Purchased Power	447,001	157,300	398,996	423,001	24,005	6.0%
Tele/Other Utilities	41,337	20,781	47,355	57,665	10,310	21.8%
Transportation	36,800	18,108	39,118	37,430	(1,688)	-4.3%
Grand Total	2,286,579	1,118,059	2,406,002	2,422,917	16,915	0.7%
Programs:						
1 - Seasonal Mains	1,382	-	-	1,287	1,287	n/a
11 - Mains & Valves Maint	414	1,548	-	403	403	n/a
12 - Services Maintenance	638	-	-	657	657	n/a
17 - Hydrant Maintenance	209	5	-	257	257	n/a
18 - Water Treatment Maint	134,874	66,828	129,611	112,228	(17,383)	-13.4%
2 - Meter Reading	165	-	-	194	194	n/a
24 - Distribution Operations	275,631	131,007	284,309	273,998	(10,311)	-3.6%
25 - Water Storage Maintenance	12,745	8,285	49,449	46,901	(2,548)	-5.2%
34 - Distribution Maintenance	36,011	19,800	33,861	40,453	6,592	19.5%
6 - Water Treatment	1,594,143	782,215	1,670,724	1,703,060	32,336	1.9%
98 - Training	32,643	29,457	51,260	50,182	(1,078)	-2.1%
99 - Administration	197,724	78,914	186,788	193,297	6,509	3.5%
Grand Total	2,286,579	1,118,059	2,406,002	2,422,917	16,915	0.7%
Funds:						
10 - General	191,301	87,015	183,305	203,072	19,767	10.8%
20 - Water General	2,043,421	1,011,938	2,150,548	2,168,100	17,552	0.8%
30 - Water Standish	51,857	19,106	72,149	51,745	(20,404)	-28.3%
Grand Total	2,286,579	1,118,059	2,406,002	2,422,917	16,915	0.7%
Headcount:						
Full-Time	11	11	11	11	0	0.0%
Part-Time	0	0	0	0	0	0.0%
Total	11	11	11	11	0	0.0%

Water Services: Water Utility Services (A6)

Financial Summary:

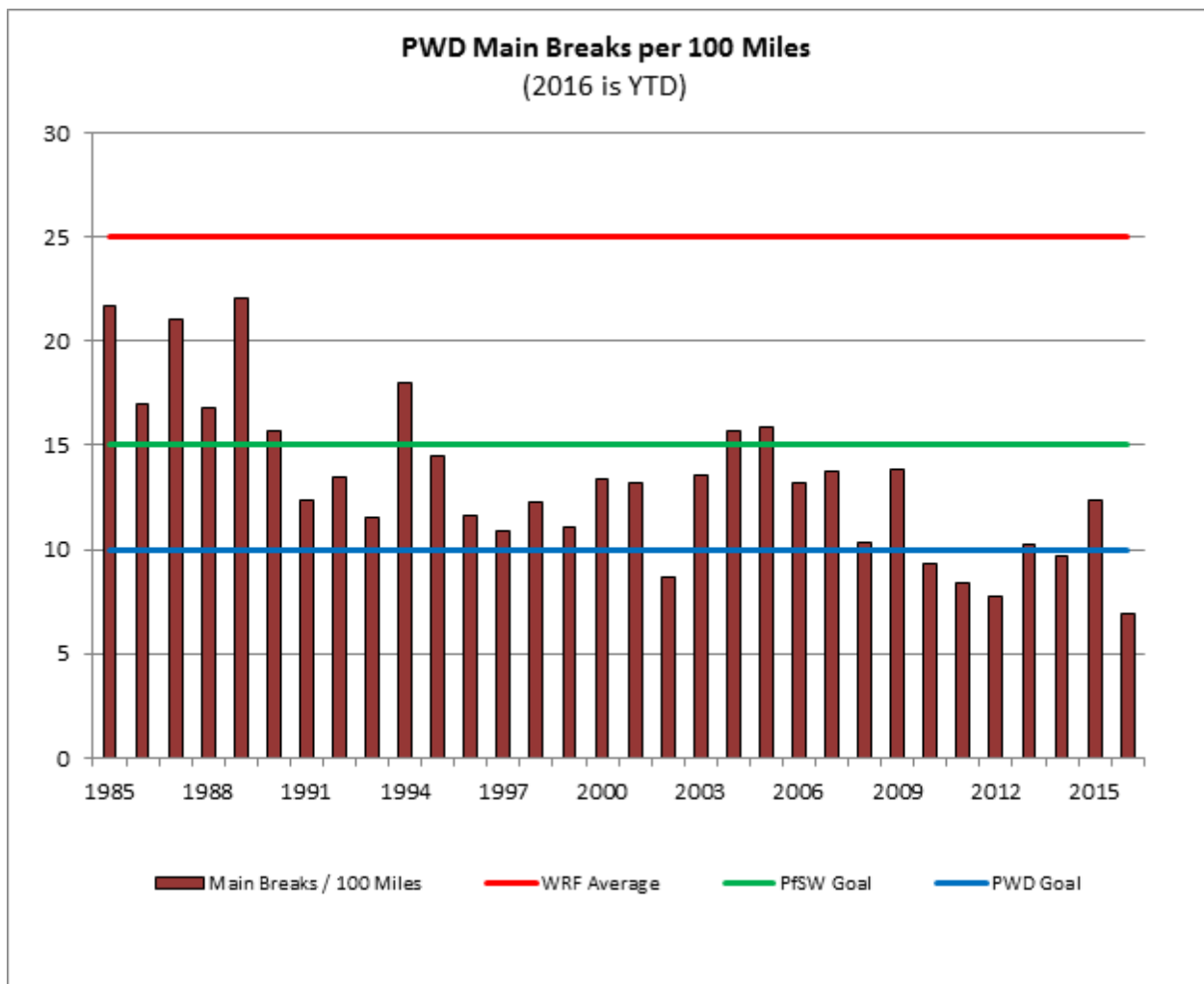
	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$774,249	\$387,406	\$751,139	\$777,803	\$26,664	3.5%
Employee Benefits	350,822	186,883	364,615	379,652	15,037	4.1%
Contracted Services	6,053	13,685	39,497	24,620	(14,877)	-37.7%
Materials & Supplies	88,213	83,633	56,220	79,515	23,295	41.4%
Other Expense	20,124	6,497	22,046	21,929	(117)	-0.5%
Tele/Other Utilities	13,970	6,043	11,256	13,349	2,093	18.6%
Transportation	150,550	78,826	133,026	141,797	8,771	6.6%
Grand Total	1,403,981	762,973	1,377,799	1,438,665	60,866	4.4%
Programs:						
1 - Seasonal Mains	39,705	28,474	37,967	48,442	10,475	27.6%
10 - General Distribution	63,787	28,091	31,071	39,481	8,410	27.1%
11 - Mains & Valves Maint	5,837	1,118	-	5,588	5,588	n/a
12 - Services Maintenance	2,545	1,174	-	2,429	2,429	n/a
14 - Distribution Flushing	117,339	61,930	109,960	98,370	(11,590)	-10.5%
15 - Digsafe Locates	215,253	114,113	226,991	220,290	(6,701)	-3.0%
16 - Cross Connection	15,329	12,747	21,930	25,864	3,934	17.9%
17 - Hydrant Maintenance	61,163	69,291	84,811	99,676	14,865	17.5%
19 - Winter Hydrant Pump	32,967	8,533	53,672	60,097	6,425	12.0%
2 - Meter Reading	87,951	46,276	94,092	93,994	(98)	-0.1%
20 - Meter Service	98,474	39,122	155,999	146,987	(9,012)	-5.8%
21 - Large Meter Testing	3,139	29,133	33,696	29,700	(3,996)	-11.9%
22 - Meter Replacement Program	1,610	1,822	2,859	5,400	2,541	88.9%
26 - Submeters	702	471	-	1,528	1,528	n/a
3 - Leak Surveys	2,583	1,388	500	7,383	6,883	1376.6%
31 - Vehicle Cleaning	1,698	1,153	1,490	1,533	43	2.9%
7 - General Investigation	212,795	104,137	178,009	181,447	3,438	1.9%
76 - Collection	12,914	7,241	13,918	16,562	2,644	19.0%
90 - Vehicles	2,029	173	1,490	1,533	43	2.9%
94 - Technology Teams	2,517	2,794	1,490	-	(1,490)	-100.0%
98 - Training	74,581	27,862	65,543	64,985	(558)	-0.9%
99 - Administration	349,063	175,930	262,311	287,376	25,065	9.6%
Grand Total	1,403,981	762,973	1,377,799	1,438,665	60,866	4.4%
Funds:						
10 - General	510,479	273,084	467,076	486,656	19,580	4.2%
20 - Water General	877,642	487,991	898,363	940,447	42,084	4.7%
30 - Water Standish	2,992	1,427	3,914	4,666	752	19.2%
51 - WW Cape Elizabeth	156	167	1,739	563	(1,176)	-67.6%
53 - WW Cumberland	7,859	42	3,229	2,018	(1,211)	-37.5%
55 - WW Windham LF	-	-	1,739	1,789	50	2.9%
57 - WW Portland	266	114	-	229	229	n/a
59 - WW South Portland	158	127	-	229	229	n/a
61 - WW Gorham	4,377	-	1,739	1,762	23	1.3%
62 - WW Westbrook	52	21	-	306	306	n/a
Grand Total	1,403,981	762,973	1,377,799	1,438,665	60,866	4.4%
Headcount:						
Full-Time	15	15	15	15	0	0.0%
Part-Time	0	0	0	0	0	0.0%
Total	15	15	15	15	0	0.0%

Water Services

A key determinate 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 (PfSW), 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.



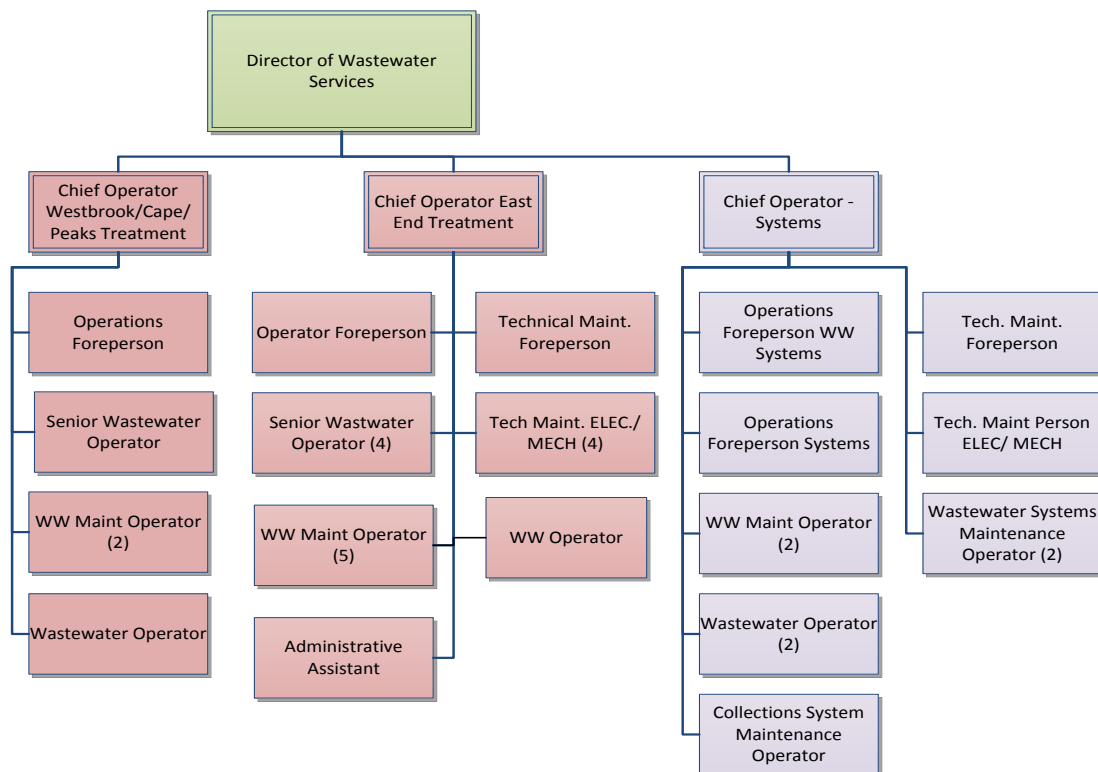
Wastewater Services – Purpose Statement

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). Operation and maintenance staff of 24 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 12 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 Treatment Facilities - 2015

Cape Elizabeth WWTF

Average Daily Flow – 0.226 million gallons

Portland – East End WWTF

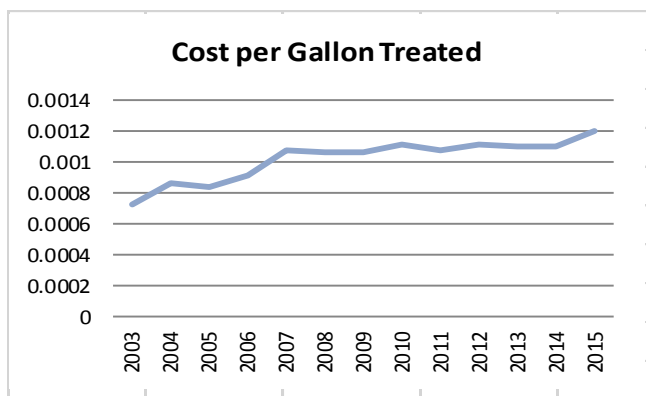
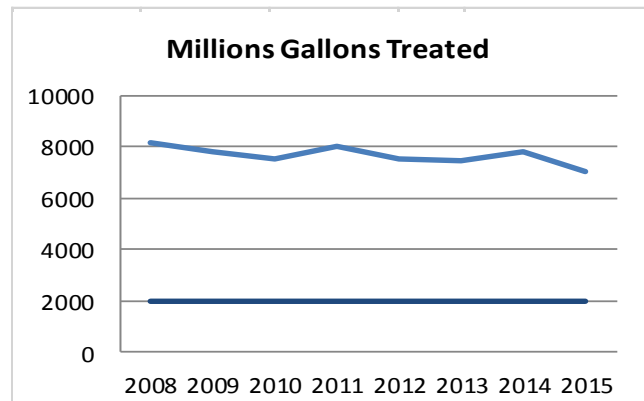
Average Daily Flow – 16.376 million gallons

Peaks Island (Portland) WWTF

Average Daily Flow – 0.087 million gallons

Westbrook/Gorham/Windham Regional WWTF

Average Daily Flow – 2.540 million gallons

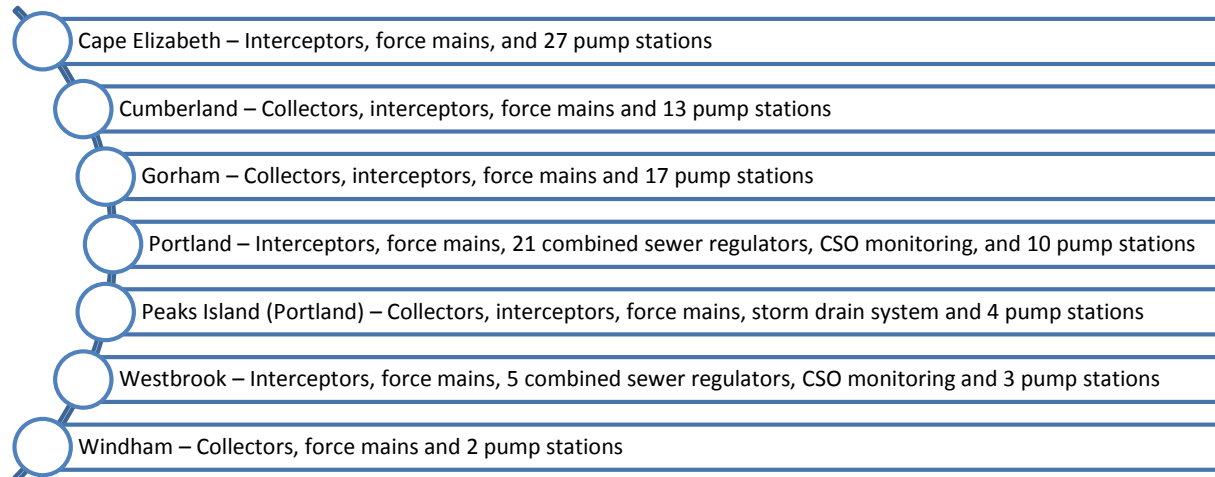


Wastewater Services Group Facts

- The East End treatment plant is the largest municipal treatment facility in Maine.
- 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. Many of these meters have been in service for a decade and are being replaced in 2016.
- The East End Treatment plant provided primary treatment and disinfection of 39% (165.02 million gallons) of CSO and wet weather flow in 2015 as part of Portland's overall CSO control program. The total volume of wet weather flow was down significantly due in part to a decrease in contributing rain fall.
- The investigation of sources of inflow and infiltration of clear water into the sewer system during wet weather periods continues in most of our wastewater communities, either as part of a CSO Long Term Control Plan (LTCP) or in separate systems. The Town of Cape Elizabeth completed an inventory of I/I sources and has extended storm drains in the Ottawa Rd. drainage area as part of their LTCP. The City of Portland has completed a survey of I/I sources on Peaks Island and has addressed several public sources of inflow. Televised inspections of the Cumberland system have identified a few areas of infiltration, most of which have been eliminated through repairs.
- The Wastewater Operator apprentice program has been operating for nearly five years. This effort will help to address coming workforce management issues due to pending retirements in the coming years. These positions have been created to allow operators to work in each of our

treatment plants and the wastewater systems and pumping group. The positions also assist the Engineering Services group with the asset management program. Through the combined efforts, we have completed asset inventories at the Cape Elizabeth and Peaks Island treatment plants. Work continues on the Westbrook/Gorham/Windham treatment plant. In 2016, the program was expanded to include instruction in the wastewater laboratory.

Wastewater Systems Responsibility



Performance Benchmarks

	2015 Actual	2016 Projected	2017 Goal
<u>Wastewater Systems</u>			
Corporate Goal - Environment			
Wet wells cleaned	142	154	125
Feet of pipe cleaned	21,050	35,400	>20,000
Feet of pipe televised	55,889	49,500	>30,000
Dry weather overflows	6	6	0
Corporate Goal -Reliability			
Corrective Maintenance tasks	269	191	<500
Corporate Goal -Affordability			
Preventive Maintenance tasks	1,258	1,590	1,500
<u>Treatment Operations</u>			
Corporate Goal - Environment			
Total license excursions	21	53	0
Corporate Goal -Reliability			
Biosolids removed (wet tons)	23,546	23,000	<21,500
% BOD removed	93.7	93.8	>85
% suspended solids removed	94.8	94.8	>85

Past Accomplishments

- Flow monitoring of combined sewer overflow events
 - PWD continuously monitors over 95% 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 CSO Long-Term Control Plan for the Ottawa Road CSO was approved by DEP in 2013. The 5-year work-plan began in 2014 with a focus by the Town of Cape Elizabeth to identify source of residential I/I. The Town of Cape Elizabeth will be completed required storm drainage work in 2015 and 2016. It is anticipated that the removal of residential sources will begin in 2017 while PWD begins the design of an upgrade to the Ottawa Rd. pump station. It is uncertain if the pump station capacity can be increased due to site limitations and downstream sewer capacity.
 - 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. In 2017, the design of a 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.
 - Construction of the Town of Falmouth's Mill Creek Pump Station and forcemain began in 2016. The Mill Creek pump station also serves the Town of Cumberland. The service agreement with Falmouth was amended in 2015 to increase the capacity that Cumberland owns in the pump station. This will enable Cumberland to fully utilize its capacity in the Falmouth Wastewater Treatment Facility.
- Westbrook/Gorham/Windham Regional Treatment Facility upgrades
 - The treatment plant's control system was upgraded in 2013. Major processes are controlled through the plant's SCADA control system. The plant is monitored remotely through the District's radio network. This continues to pay operational and financial dividends with additions of wet weather flow response and monitoring of effluent residual chlorine to the control system.
 - An effluent chlorination system monitoring system was installed to continuously monitor the treated effluent. This has eliminated the need for daily readings and staff is no longer required to make weekend visits to the plant.
 - At the request of the Department of Environmental Protection, effluent samples for phosphorus and nitrogen were collected during the summer months of 2015. This information was sent to the DEP and will be used to better understand the need for future effluent limitations on these nutrients. This is part of a state-wide effort by DEP. We expect that phosphorus (and possibly nitrogen) limits may be considered in future permit renewals, including the upcoming 2017 renewal.
- 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.

Past Accomplishments (continued)

- 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 generators installed during construction as part of our new infrastructure standards.
- Staff completed an assessment of all pump stations in 2014. A summary report has been prepared for each community that PWD services. These findings continue to guide the development and implementation of our long range capital improvement program.
- 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.
- 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 will further enhance the program.
 - 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.
- East End Wastewater Treatment Plant
 - The construction of the diffused air system at the East End treatment plant is about 50% complete. Three new blowers and the first of 3 upgrade aeration tanks have been completed. The new tank has provided much needed relief to operational and odor issues that occurred following the failure of an aerator in one of the existing tanks. The second upgraded tank is expected to be completed by the end of 2016. The final tank upgrade should be completed in 2017.
 - Dewatering system improvements and operational enhancements have reduced Biosolids costs and improved the operations of the treatment plant. The contract to manage biosolids was extended to a 3rd five-year term. About a quarter of PWD biosolids are now being composted for beneficial reuse. In 2016, the addition of the Village Green Digester in Brunswick has provided another beneficial use outlet for PWD biosolids.
 - New local limits for BOD and TSS have been in place since 2011. To date there has not been a reduction in loading to the treatment plant, which operates with influent loadings slightly above the design capacity. The local limits will remain in place until the after the aeration system is completed. It is likely that the final BOD and TSS local limits will be near the current screening levels.
 - In 2016, the process to renew the East End treatment plant permit began. Several parties commented on the draft and are seeking nitrogen limits despite the lack of an established Water Quality Standard for nitrogen. As of September, negotiations were underway in an effort to finalize the permit.

2017 Projects and Initiatives

B1 – Administration

- We continue to monitor changing regulations related to phosphorus, nitrogen, and high flow management.
- 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.
- As part of the Peaks Island sewer expansion, PWD has worked with the City of Portland and MEDEP to identify and remove inflow and infiltration to the sewer in an effort to eliminate the need to operate the plant in emergency bypass mode several times each year. The goal for removal of flow from the system is at least 250 gallons per minute during peak wet weather periods. The City has completed a survey of 80% of the homes and is working to develop a plan to remove roof leaders and sump pumps that have been identified. As development pressure on the island increases, PWD will evaluate the capacity of the Peaks facility and will continue to work with Portland to remove excessive I/I from private systems.
- 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.

B3, L9 – Operations

- Treatment Plant Operators continue to focus on effluent compliance. Staff continues to make process control adjustments to the operation of the treatment plant as needed. In 2016, PWD received the NACWA Gold and Silver Peak Performance Awards for the performance of the Peaks Island and Westbrook/Gorham/Windham Regional treatment plants during 2015.
- 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. In 2016, staff has developed over 140 new lock-out tag-out procedures and assisted our Safety and Training Consultant with the required identification and labeling of stored chemicals in our facilities as required by the new OSHA Global Harmonization Standard.
- Staff continues to work to manage odors from our treatment facilities. The East End treatment facility did experience an unusually high number of odor complaints in 2016. The bulk of these odors can be attributed to the aeration system upgrade construction project and the failure of an aerator in one of the aeration tanks. The need for an odor control system at the Northeast Pump Station has been included in the draft capital plan for 2017.
- 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. The crew attended a full training on the new unit and is quickly becoming accustomed to the modern safer operation features.

Corporate Goal – Reliability

B1 – Administration

- Assist with the implementation of SCADA Standards through regular coordination with AMaP and Operations staff. Monthly coordination meetings take place to further support this effort.

B3, L9 – Operations

- Continue developing preventive maintenance practices that lead to or exceed a 75%/25% mix of preventive to corrective work order history.
- Monitor pump system's ability to minimize pump station downtime.
- Continue the condition assessment program of combining line cleaning and CCTV inspection of 10% of each community's buried infrastructure. We are in the 8th year of that program.
- 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.
- 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 will include a review of energy management in the recommendation of future projects.

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. dewatered solids, 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.
- 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.
- 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 preventative 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. While not currently required, the performance would likely meet DEP's future permit limits. 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 and East End WWTFs without significant capital investments.
- Beginning in 2016, our goal is zero exceedences each year from all treatment plants. This goal will continue to direct or 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 hand-on learning designed to prepare operators for certification exams and their daily activities in our treatment plants and systems.

B3, L9 – Operations

- Provide support to employees through annual performance reviews and regular support.
- 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 Asset Management and Planning department (AMaP), the wastewater laboratory, and the Water Services Department.

In 2016, PWD received the NACWA Gold and Silver Peak Performance Awards for the performance of the Peaks Island and Westbrook/Gorham/Windham Regional treatment plants during 2015.



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 2017 budget total includes an increase of \$356,920 to \$9,518,744. This is a 3.9% increase from the 2016 budget.

Salaries/Wages: Overall budgeted staffing levels remained unchanged. 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 \$71,580 or 3.4%.

Biosolids Disposal: The total budget for the disposal of biosolids generated from the treatment of wastewater has increased by \$61,564 in 2017 or 4.4%. The budgeted % Total Solid from the East End WWTF has been lowered slightly to 23%. The Westbrook/Gorham/Windham Regional WWTF stays the same at 16.0% TS. Overall, biosolids production is projected to increase slightly.

Chemicals: Generally, chemicals are used at each of our facilities to 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 decreased by \$112,296 or 16% from the 2016 budget. A decrease in budgeted polymer costs represented the majority of this decrease. The decrease in budgeted polymer costs of \$98,837 is due to a change in polymer and its performance along with a lower unit price.

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 increased by \$152,795 or 11.1% due nearly exclusively to Falmouth's Mill Creek Pump Station upgrade. Through PWD, the town of Cumberland is responsible for 43.2% of the cost of this project.

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. In 2017, the budget has decreased by \$37,908 or 20.8% due to an anticipated decrease in the cost of natural gas at the East End treatment plant.

Purchased Power: While the power use at our facilities is expected to remain near 2016 levels, there has been a significant increase in power costs. The power budget has been increased by \$172,199 or 13.1% in the 2017 budget.

Transportation: The transportation budget has not changed significantly from the 2016 budget. The 2017 budget projects a small increase of 2.7% or \$8,114.

Wastewater Services: Total

Financial Summary:

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
B1 - Wastewater Administration	\$167,702	\$85,977	\$171,889	\$180,807	\$8,918	5.2%
B3 - Wastewater Treatment	5,917,436	3,064,924	6,202,993	6,352,408	\$149,415	2.4%
L9 - Wastewater Systems	2,636,894	1,319,454	2,786,942	2,985,529	\$198,587	7.1%
Grand Total	8,722,032	4,470,355	9,161,824	9,518,744	\$356,920	3.9%
Expense Type:						
Salaries & Wages	2,060,821	1,055,188	2,127,144	2,198,724	71,580	3.4%
Employee Benefits	1,011,794	535,161	1,095,817	1,137,796	41,979	3.8%
Biosolids Disposal	1,518,633	777,998	1,390,252	1,451,816	61,564	4.4%
Chemicals	626,287	359,794	702,202	589,906	(112,296)	-16.0%
Contracted Services	1,242,492	575,974	1,373,470	1,526,265	152,795	11.1%
Heat/Fuel Oil	196,300	90,904	182,578	144,670	(37,908)	-20.8%
Insurance	42,996	22,712	42,977	43,209	232	0.5%
Materials & Supplies	333,728	187,765	403,792	411,197	7,405	1.8%
Other Expense	53,306	16,198	70,987	73,455	2,468	3.5%
Purchased Power	1,231,664	644,181	1,309,687	1,481,886	172,199	13.1%
Tele/Other Utilities	135,938	75,367	163,298	152,086	(11,212)	-6.9%
Transportation	268,073	129,113	299,620	307,734	8,114	2.7%
Grand Total	8,722,032	4,470,355	9,161,824	9,518,744	\$356,920	3.9%
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%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$299,686	\$156,432	\$304,110	\$317,560	\$13,450	4.4%
660121 - WAGES/REGULAR UNION	1,598,050	812,794	1,658,722	1,710,821	52,099	3.1%
660122 - WAGES/OVERTIME UNION	118,202	62,295	111,944	117,602	5,658	5.1%
660123 - WAGES/DOUBLETIME UNION	8,064	4,643	11,879	12,998	1,119	9.4%
660124 - WAGES/STANDBY TIME UNION	31,991	16,231	33,282	32,573	(709)	-2.1%
660131 - WAGES - REGULAR - TEMPS	7,282	2,793	7,207	7,170	(37)	-0.5%
66014 - VACATION ACCRUAL	(328)	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	(2,126)	-	-	-	-	n/a
Salaries & Wages Total	2,060,821	1,055,188	2,127,144	2,198,724	71,580	3.4%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	154,456	79,194	162,730	168,202	5,472	3.4%
660405 - SAFETY/WHY PROGRAM ITEMS	7,213	2,217	7,945	7,686	(259)	-3.3%
660411 - MEALS ALLOWANCE	230	140	550	450	(100)	-18.2%
6604151 - FIELD UNIFORMS	95	-	100	75	(25)	-25.0%
660418 - STIPENDS	4,500	4,200	5,100	5,000	(100)	-2.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	6,825	-	-	-	-	n/a
660491 - FRINGE BENEFITS-REG/SAL	838,475	449,410	919,392	956,383	36,991	4.0%
Employee Benefits Total	1,011,794	535,161	1,095,817	1,137,796	41,979	3.8%
Biosolids Disposal						
663571 - BIOSOLIDS DISPOSAL	1,518,633	777,998	1,390,252	1,451,816	61,564	4.4%
Biosolids Disposal Total	1,518,633	777,998	1,390,252	1,451,816	61,564	4.4%
Chemicals						
661811 - SODIUM BICARBONATE	13,029	6,141	12,474	12,911	437	3.5%
661812 - SODIUM BISULFITE	148,647	79,299	160,320	152,675	(7,645)	-4.8%
6618121 - SODIUM BISULFITE-ACCRUAL	832	104	-	-	-	n/a
66182 - CAUSTIC SODA	-	-	7,216	7,070	(146)	-2.0%
66185 - SODIUM HYPOCHLORITE	244,549	139,169	268,519	262,414	(6,105)	-2.3%
66189 - POLYMER	219,230	135,081	251,673	152,836	(98,837)	-39.3%
661899 - OTHER CHEMICALS	-	-	2,000	2,000	-	0.0%
Chemicals Total	626,287	359,794	702,202	589,906	(112,296)	-16.0%
Contracted Services						
6631 - ENGINEERING SERVICES	43,876	13,507	97,500	97,500	-	0.0%
663521 - TRAFFIC CONTROL	186	-	300	300	-	0.0%
663525 - CONTRACTOR CONSTRUCTION	-	-	25,500	25,500	-	0.0%
66353 - REPAIR SERVICES	50,839	11,515	13,000	13,000	-	0.0%
66354 - MAINTENANCE SERVICES	221,988	125,423	191,791	221,812	30,021	15.7%
663543 - CSO FLOW MONITORING	130,485	31,995	186,007	191,395	5,388	2.9%
663544 - MAINT SERVICES - CCTV	51,888	-	60,000	65,750	5,750	9.6%
663546 - MAINTENANCE - SNOW REMOVL	50,055	22,032	56,250	52,635	(3,615)	-6.4%
663547 - WASTE SLUDGE TRANSPORT	30,745	14,829	21,462	31,800	10,338	48.2%
663551 - LAB ANALYSIS	284	-	2,400	1,600	(800)	-33.3%
663561 - COMPUTER LICENSES	33,807	37,214	36,634	36,464	(170)	-0.5%
663562 - COMPUTER MAINTAINENCE	-	-	-	150	150	n/a
663563 - COMPUTER CONSULTING/OTHER	4,883	-	-	-	-	n/a
663572 - GRIT & SCREENS DISPOSAL	55,677	25,343	73,950	74,450	500	0.7%
663573 - GREASE DISPOSAL	24,816	8,796	30,500	34,700	4,200	13.8%
663574 - DISPOSAL SERVICES	8,686	3,558	14,818	7,670	(7,148)	-48.2%
663585 - TREATMENT CONTRACT SERVIC	530,051	279,550	559,100	665,071	105,971	19.0%
6635851 - WW DEWATERING SERVICES	3,852	2,288	3,158	5,438	2,280	72.2%
6635852 - WW DEWATERING SRVS CREDIT	(3,852)	(2,288)	(3,400)	(3,400)	-	0.0%
663587 - COURIER SERVICES	4,226	2,212	4,500	4,430	(70)	-1.6%
Contracted Services Total	1,242,492	575,974	1,373,470	1,526,265	152,795	11.1%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Heat/Fuel Oil						
66161 - HEATING OIL	\$36,206	\$26,009	\$38,702	\$28,476	(\$10,226)	-26.4%
661621 - PIPELINE DELIVERED PROPAN	127,668	44,443	113,952	81,348	(32,604)	-28.6%
661622 - CONTAINER DELIVERED	31,970	20,238	29,524	34,446	4,922	16.7%
66166 - UNLEADED GAS	456	214	400	400	-	0.0%
Heat/Fuel Oil Total	196,300	90,904	182,578	144,670	(37,908)	-20.8%
Insurance						
66599 - PROPERTY & BOILER INSUR	42,996	22,712	42,977	43,209	232	0.5%
Insurance Total	42,996	22,712	42,977	43,209	232	0.5%
Materials & Supplies						
6619 - ASSET PURCHASES	100,844	51,653	100,500	101,500	1,000	1.0%
66202 - TOOLS	5,728	1,374	7,600	7,600	-	0.0%
66203 - VENDOR PURCHASED SUPPLIES	137,994	68,416	206,650	210,650	4,000	1.9%
662041 - MATERIALS INVENTORY	37,119	31,797	33,875	34,575	700	2.1%
662042 - SUPPLIES INVENTORY	23,842	16,058	26,525	26,775	250	0.9%
662043 - TOOL INVENTORY	15,069	13,681	12,575	13,775	1,200	9.5%
66204301 - INVENTORY - TONER	75	-	200	200	-	0.0%
66204302 - INVENTORY - PAPER	338	150	225	225	-	0.0%
66204303 - INVENTORY - COMPUTER EQUIP	4,149	631	2,216	3,125	909	41.0%
662047 - GARAGE INVENTORY	2,083	1,274	2,025	2,075	50	2.5%
66205 - CONSUMABLE SUPPLIES	1,064	567	1,650	984	(666)	-40.4%
66206 - COMPUTER RELATED EQUIP	5,423	2,164	9,751	9,713	(38)	-0.4%
Materials & Supplies Total	333,728	187,765	403,792	411,197	7,405	1.8%
Other Expense						
6642 - EQUIPMENT RENT	467	162	500	500	-	0.0%
66609 - OTHER ADVERTISING	-	1,146	-	500	500	n/a
6675111 - INSTA TE TRAINING/CONF	9,935	6,563	16,000	18,250	2,250	14.1%
6675112 - OUT OF STATE TRAINING/CON	4,046	4,080	10,650	10,250	(400)	-3.8%
667513 - DUES	11,311	2,550	12,800	12,800	-	0.0%
667514 - PROFESSIONAL LICENSES	2,451	1,502	2,430	2,380	(50)	-2.1%
667515 - PERIODICAL SUBSCRIPTIONS	559	175	250	250	-	0.0%
667516 - PERMITS	24,893	5,882	26,532	26,500	(32)	-0.1%
667517 - PLANT OPER LICENSE FEES	-	-	75	75	-	0.0%
667518 - REGULATORY REQUIRED FEES	11,558	-	14,000	14,000	-	0.0%
667521 - POSTAGE - THIRD PARTY	65	27	75	75	-	0.0%
667522 - POSTAGE - INTERNAL	79	65	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	7	330	350	350	-	0.0%
667533 - FORMS STOCK	-	-	-	400	400	n/a
667552 - SAFETY TRAINING	3,245	-	1,600	1,500	(100)	-6.3%
667555 - SAFETY EXPENSES	5,225	2,736	5,925	5,925	-	0.0%
667556 - FREIGHT CHARGES (STOCK)	-	-	100	-	(100)	-100.0%
667581 - ANNUAL LAND CONTRIB CAPE	2,500	2,500	2,500	2,500	-	0.0%
667592 - FOOD SUPPLIES	365	180	500	500	-	0.0%
6676 - EXPENSE OFFSET	(23,400)	(11,700)	(23,400)	(23,400)	-	0.0%
Other Expense Total	53,306	16,198	70,987	73,455	2,468	3.5%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Purchased Power						
66151 - POWER - LARGE ENERGY	\$469,320	\$232,387	\$484,128	\$379,034	(\$105,094)	-21.7%
66152 - POWER - LARGE T&D	303,983	153,788	344,899	418,237	73,338	21.3%
66153 - POWER - MEDIUM ENERGY	236,996	127,948	241,583	271,585	30,002	12.4%
66154 - POWER - MEDIUM T&D	147,590	81,299	157,290	187,669	30,379	19.3%
66155 - POWER - SMALL ENERGY	43,337	26,139	45,166	42,433	(2,733)	-6.1%
66156 - POWER - SMALL T&D	40,551	22,548	42,201	45,474	3,273	7.8%
66157 - POWER - OTHER CHARGES	125	72	120	144,454	144,334	120278.3%
66158 - LOAD RESPONSE	(10,238)	-	(5,700)	(7,000)	(1,300)	22.8%
Purchased Power Total	1,231,664	644,181	1,309,687	1,481,886	172,199	13.1%
Tele/Other Utilities						
66101 - WATER	113,929	52,721	119,744	109,492	(10,252)	-8.6%
66102 - WASTEWATER	-	-	1,500	-	(1,500)	-100.0%
66103 - STORMWATER CHARGES	-	9,954	17,062	17,117	55	0.3%
66111 - TELEPHONE LINES	-	86	200	-	(200)	-100.0%
66112 - DATA LINES	12,889	8,178	15,630	17,694	2,064	13.2%
66113 - CELLULAR PHONES	8,373	3,650	8,460	7,443	(1,017)	-12.0%
66114 - PAGERS	747	778	702	340	(362)	-51.6%
Tele/Other Utilities Total	135,938	75,367	163,298	152,086	(11,212)	-6.9%
Transportation						
66501 - TRANSPORTATION - INTERNAL	136,421	71,321	200,465	213,215	12,750	6.4%
665019 - TRANS INTERNAL INACTIVE	112,495	51,990	84,111	78,225	(5,886)	-7.0%
66502 - TRANSPORTATION - EXTERNAL	17,839	5,560	13,300	14,800	1,500	11.3%
66503 - MILEAGE REIMBURSEMENT	1,318	242	1,744	1,494	(250)	-14.3%
Transportation Total	268,073	129,113	299,620	307,734	8,114	2.7%
Grand Total	8,722,032	4,470,355	9,161,824	9,518,744	356,920	3.9%

Wastewater Services: Wastewater Administration (B1)**Financial Summary:**

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$100,266	\$52,005	\$100,054	\$105,641	\$5,587	5.6%
Employee Benefits	51,861	28,012	54,719	58,092	3,373	6.2%
Contracted Services	-	15	500	650	150	30.0%
Materials & Supplies	68	-	400	150	(250)	-62.5%
Other Expense	14,009	5,407	14,605	14,605	-	0.0%
Tele/Other Utilities	889	452	960	1,500	540	56.3%
Transportation	609	86	651	169	(482)	-74.0%
Grand Total	167,702	85,977	171,889	180,807	8,918	5.2%
Programs:						
98 - Training	10,802	7,367	5,944	6,290	346	5.8%
99 - Administration	156,900	78,610	165,945	174,517	8,572	5.2%
Grand Total	167,702	85,977	171,889	180,807	8,918	5.2%
Funds:						
10 - General	14	135	-	-	-	n/a
50 - Wastewater General	167,688	85,842	171,889	180,807	8,918	5.2%
Grand Total	167,702	85,977	171,889	180,807	8,918	5.2%
Headcount:						
Full-Time	1	1	1	1	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	1	1	1	1	0	0.0%

Wastewater Services: Wastewater Treatment Plants (B3)

Financial Summary:

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$1,274,543	\$650,411	\$1,321,010	\$1,364,372	\$43,362	3.3%
Employee Benefits	621,205	324,844	674,921	700,413	25,492	3.8%
Biosolids Disposal	1,518,633	777,998	1,390,252	1,451,816	61,564	4.4%
Chemicals	626,287	359,794	702,202	589,906	(112,296)	-16.0%
Contracted Services	488,031	242,276	574,070	615,123	41,053	7.2%
Heat/Fuel Oil	185,027	81,706	169,033	131,609	(37,424)	-22.1%
Insurance	20,910	10,471	20,900	21,005	105	0.5%
Materials & Supplies	223,732	127,777	280,004	283,159	3,155	1.1%
Other Expense	27,253	5,757	42,082	44,550	2,468	5.9%
Purchased Power	780,448	394,581	838,861	960,400	121,539	14.5%
Tele/Other Utilities	74,586	53,093	114,596	112,519	(2,077)	-1.8%
Transportation	76,781	36,216	75,062	77,536	2,474	3.3%
Grand Total	5,917,436	3,064,924	6,202,993	6,352,408	149,415	2.4%
Programs:						
44 - WW Pumping	19,806	8,572	7,796	10,504	2,708	34.7%
45 - WW Treatment	5,473,114	2,824,346	5,799,217	5,905,460	106,243	1.8%
98 - Training	69,594	45,368	95,301	107,452	12,151	12.8%
99 - Administration	354,922	186,638	300,679	328,992	28,313	9.4%
Grand Total	5,917,436	3,064,924	6,202,993	6,352,408	149,415	2.4%
Funds:						
50 - Wastewater General	424,516	232,006	395,980	436,444	40,464	10.2%
51 - WW Cape Elizabeth	342,622	185,036	405,452	420,913	15,461	3.8%
57 - WW Portland	4,102,988	2,109,104	4,195,996	4,297,897	101,901	2.4%
62 - WW Westbrook	3,770	2,135	3,898	5,618	1,720	44.1%
64 - WW Joint Westbrook	889,398	469,467	1,001,315	994,225	(7,090)	-0.7%
66 - WW Peaks Island	154,142	67,176	200,352	197,311	(3,041)	-1.5%
Grand Total	5,917,436	3,064,924	6,202,993	6,352,408	149,415	2.4%

Wastewater Services: Wastewater Systems (L9)

Financial Summary:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$686,012	\$352,772	\$706,080	\$728,711	\$22,631	3.2%
Employee Benefits	338,728	182,305	366,177	379,291	13,114	3.6%
Contracted Services	754,461	333,683	798,900	910,492	111,592	14.0%
Heat/Fuel Oil	11,268	9,198	13,545	13,061	(484)	-3.6%
Insurance	22,086	12,241	22,077	22,204	127	0.6%
Materials & Supplies	109,928	59,988	123,388	127,888	4,500	3.6%
Other Expense	12,049	5,034	14,300	14,300	-	0.0%
Purchased Power	451,216	249,600	470,826	521,486	50,660	10.8%
Tele/Other Utilities	60,463	21,822	47,742	38,067	(9,675)	-20.3%
Transportation	190,683	92,811	223,907	230,029	6,122	2.7%
Grand Total	2,636,894	1,319,454	2,786,942	2,985,529	198,587	7.1%
Programs:						
39 - Compost Site	1,506	699	2,000	2,000	-	0.0%
44 - WW Pumping	1,739,876	870,539	1,959,326	2,031,550	72,224	3.7%
45 - WW Treatment	362,232	190,620	374,972	482,933	107,961	28.8%
90 - Vehicles	39,251	20,662	33,795	35,750	1,955	5.8%
95 - Douglass Street	18,216	10,666	12,778	15,836	3,058	23.9%
98 - Training	45,187	44,165	66,787	59,466	(7,321)	-11.0%
99 - Administration	430,626	182,103	337,284	357,994	20,710	6.1%
Grand Total	2,636,894	1,319,454	2,786,942	2,985,529	198,587	7.1%
Funds:						
10 - General	36,103	13,440	25,560	28,872	3,312	13.0%
20 - Water General	9,085	3,708	9,761	10,601	840	8.6%
50 - Wastewater General	527,261	263,841	459,724	475,814	16,090	3.5%
51 - WW Cape Elizabeth	279,623	195,430	303,395	318,364	14,969	4.9%
53 - WW Cumberland	516,780	264,418	543,240	638,352	95,112	17.5%
55 - WW Windham LF	34,366	12,205	33,484	36,488	3,004	9.0%
57 - WW Portland	763,554	312,627	864,619	883,696	19,077	2.2%
61 - WW Gorham	119,218	56,827	159,545	162,959	3,414	2.1%
62 - WW Westbrook	111,591	70,563	160,514	160,143	(371)	-0.2%
64 - WW Joint Westbrook	116,799	53,997	108,231	134,017	25,786	23.8%
65 - WW Joint LF	49,442	19,320	55,027	60,436	5,409	9.8%
66 - WW Peaks Island	73,072	53,078	63,842	75,787	11,945	18.7%
Grand Total	2,636,894	1,319,454	2,786,942	2,985,529	198,587	7.1%
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

WaterWays

Our new in-school education program



The 2016-2017 school year will mark the kick-off of WaterWays, our redesigned in-school education program for middle school students. The District has implemented in-school education programs for over twenty years. A recent shift in philosophy, staffing, and national science standards has changed our programming dramatically. The overarching goal of our new program, *WaterWays*, is the same – using hands-on science lessons to teach middle school students about the ways we use, share, pollute, and protect water.

The delivery method is very different, however. In the past, two temporary educators delivered the same lesson for an entire month to approximately 1,000 students in seven Sebago Lake watershed and service area schools. Beginning in the fall of 2016, one year-round educator will deliver four different lessons over four consecutive weeks in each school. While the same amount of schools and students will be reached over the year, this method allows for our content to align better with the school's curriculum so the topic is reinforced by the teachers when our educator is not in the classroom. The new program also aligns with the Next Generation Science Standards, new national science goals. The changes have been endorsed by teachers and we are thrilled at the deeper learning that will result.

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

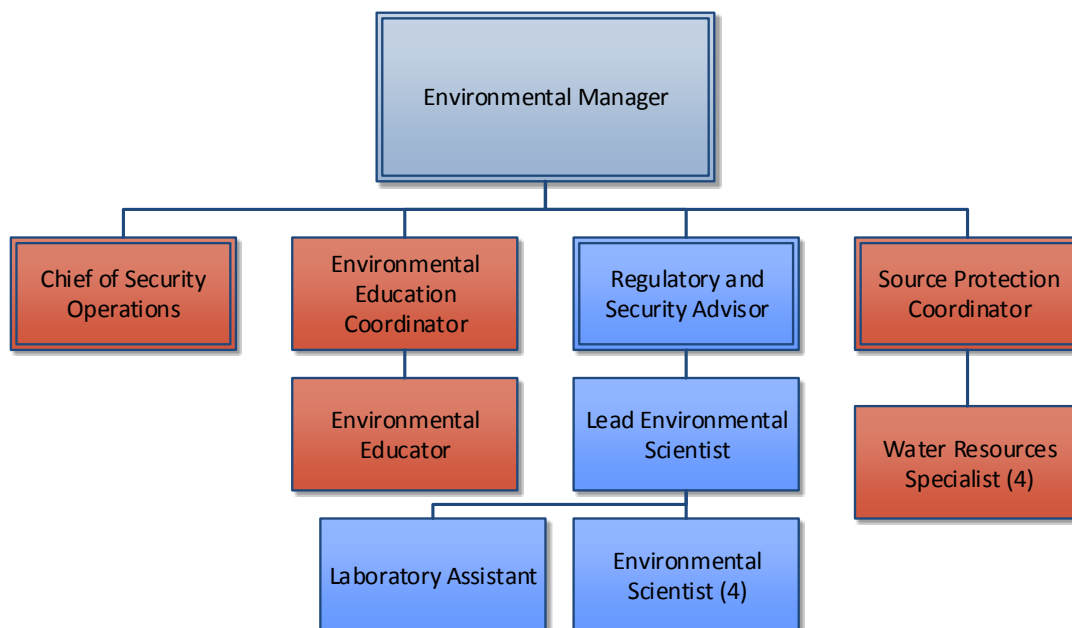
Environmental Services provides services in five core areas:

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

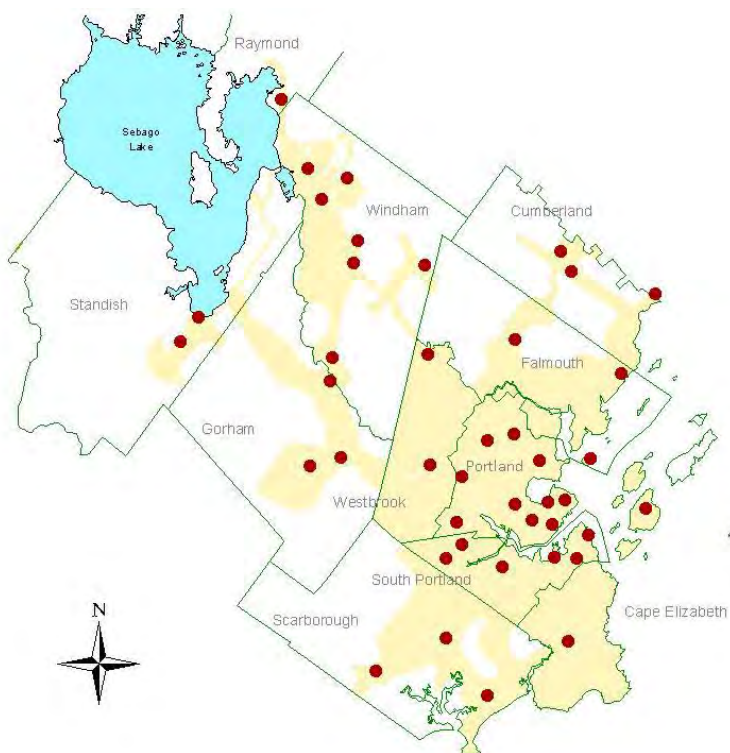
1. The Source Protection section monitors Sebago Lake and the watershed, inspects development projects in the watershed to minimize their impact, works with watershed partners to install pollution prevention and mitigation projects, and works with watershed land trusts to help landowners seeking to conserve 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 Water Resources Security section provides for the protection of Sebago Lake by patrolling Lower Bay and enforcing the rules of access to the Sebago Lake Land Reserve.

Laboratory Services Group (L6; blue in organization chart)

4. The Environmental Laboratories ensure the proper collection, chemical and microbiological analysis and reporting of water, wastewater and biosolids samples and the maintenance and operation of all laboratory sampling and monitoring equipment at the District's five laboratories.
5. The Industrial Pretreatment Program is 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.



Key Statistics



Map shows water distribution system sampling locations

Watershed Monitoring Programs: 18

Annual Watershed Inspections: 400

Students and Adults Impacted by Education and Outreach programs: More than 4,700 annually

Annual Land Reserve Day-use Visitors: 15,000

Land Reserve Violations Issued: 160

Annual Lower Bay Patrol Hours: 2000

Annual Lower Bay Violators cited: 60

Certified Laboratory Analytes: 69

Average Annual Water Quality Inquiries: 310

IPT Industries Regulated: 41

Performance Benchmarks

Corporate Goals – Public Health and Environment	2015 Actual	2016 Projected	2017 Goal
% Verified - Water Quality Inquiries	19	22	20
Shore Land Zone Inspections	397	400	450
Watershed Properties Improved or Recommendations Made	19	25	30
Lower Bay Water Violations	127	63	70
Land Reserve Day Use Visitors	20,167	25,000	28,000
Land Reserve Violations	151	160	150
Visitors per Land Reserve Violation	134	156	165
Certified Laboratory Analytes	38	67	69
Students served monthly by HydroLogics/WaterWays In-School Program	1008	1000	1000
Outreach Events organized by PWD	18	19	15

Past Accomplishments:

Source Protection since 2000:

- Completed more than 8,500 watershed inspections.
- Made recommendations for improvements to more than 525 watershed properties
- Directed water quality-related improvements to more than 200 properties.
- Awarded more than \$255,000 in Lake Stewards Grants which leveraged more than \$875,000 in additional cash and in-kind matching funds for water quality improvements
- Maintained 18 ongoing lake and watershed monitoring programs.
- Reviewed plans for more than 153 large developments and, when necessary, provided planning board feedback in an effort to minimize the impact of these projects.
- Responded to 450 complaints, 260 of which prevented or mitigated environmental violations and/or pollution.
- Contributed more than \$507,000 to assist in the conservation by area land trusts of about 4,000 acres of land in the watershed.

Education and Outreach since 2000:

- Produced 24 Watershed News newsletters and 5 State of the Lake reports.
- Distributed more than 53,000 Sebago Lake maps and 11,000 “Images of Sebago Lake” calendars to watershed residents and visitors.
- Distributed more than 89,000 brochures and fact sheets to watershed residents and visitors
- Taught water principles to approximately 15,000 middle school-aged students through our HydroLogics in-school education program.
- Provided environmental education to approximately 23,000 additional children, teachers, and adults through tours, events, workshops, field trips, lessons, and programs.

Water Resources Security since 2005:

- Patrolled Lower Bay by boat and attended the Standish Boat Launch for approximately 18,542 hours combined.
- Patrolled the Sebago lake Land Reserve by using an all terrain vehicle (Extended Security patrol) for approximately 1,072 hours combined.
- Issued more than 1,581 warnings for violation of water contact regulations
- Recorded 123,931 day-use visits to the Sebago Lake Land Reserve.
- Issued more than 2,311 warnings for violation of Land Reserve Rules.
- Suspended privileges to visit Land Reserve of 42 individuals for aggravated or multiple Land Reserve Rule violations.

Environmental Laboratories since 2000:

- Operated water and wastewater laboratories as one functioning unit with shared resources, staff, and expertise.
- Upgraded East End laboratory bench tops, cabinets and hazardous vapor exhaust hoods
- 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.
- Upgraded laboratory certification program to current EPA and state standards to maintain certification for water and wastewater analyses.
- Correctly analyzed performance testing samples to maintain lab certification.
- Re-engineered the customer water quality inquiry process to ensure prompt and consistent response by appropriate staff; responded to 355 water quality inquiries in 2014 and 298 in 2015.

Past Accomplishments (continued)

- Contributed to the protection of public health by participating in the Maine healthy beaches program.
- Accomplished the adoption of more stringent local limits on Portland and Westbrook industrial dischargers.
- Created and implemented an Industrial Waste Survey of the Westbrook-Gorham-Windham system to identify IPT industries.

Budget Year 2016 Highlights:

- Revisited the 2001 Source Water Assessment Program findings and updated the potential sources of contamination and associated risk assessment.
- Continued implementation of the Board's 2013 Watershed Land Conservation Program by partnering with national and local conservation groups to explore ways to accelerate the pace of conservation and assisting with partners' application for Healthy Watershed Consortium Grant.
- Continued implementation of the Pipeline Action Plan. Performed outreach to three more watershed fire departments and organized and participated in a table top exercise for a mock pipeline spill located near Sebago Lake in Raymond.
- Received a grant for \$59,327 in federal non-point source funding for the Sebago Lake Phase III Implementation project to address high priority erosion sites around Sebago Lake.
- Worked with the Town of Standish to provide technical assistance for the development of the John Rich Memorial Beach on District property on Sebago Lake.
- Tested soils at main break locations for corrosivity - "hot soils"- to support main repair/replacement program.
- Supported service area schools with lead testing and technical support.
- Concluded second round of Cryptosporidium testing per LT2SWTR.
- Hired a permanent, full-time educator, replacing two temporary positions.
- Revamped our in-school education program – now called *WaterWays* – to be carried out by one educator, more closely align with science curriculum, and meet national science standards.
- Worked with RSU 14 (Windham/Raymond School District) staff to co-present the "Discovering Water" book project to 180 people at the New England Secondary School Consortium's "High School Redesign in Action" Conference.
- Mailed 223 copies of "Discovering Water" to sixth grade science teachers, middle school librarians, and high school principals within the Sebago Lake Watershed and PWD service area.
- Organized and participated in an emergency response training exercise within the Sebago lake Land Reserve.

2016 Highlights



Hired a permanent, full-time Environmental Educator, replacing two temporary positions.



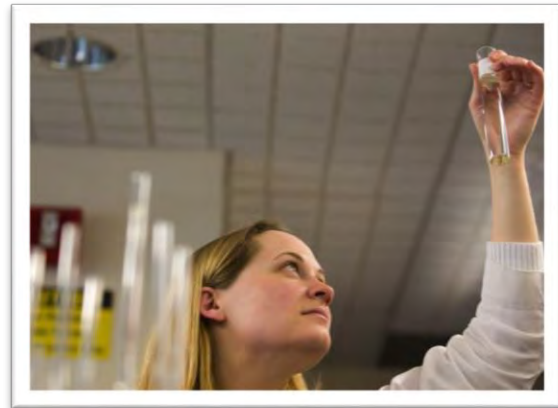
Revamped our in-school education program – now called **WaterWays** – to be carried out by one educator, more closely align with science curriculum, and meet national science standards.



Developed soil testing capability and supported Water Operations by performing corrosivity testing.



Tested for E coli from samples collected at main breaks to support water operations.



Initiated month-long lab immersion for Wastewater System Operators to improve wastewater data quality.



Resurfaced and enlarged the Route 35 Overpass parking area. This is the most used access point to the land reserve.

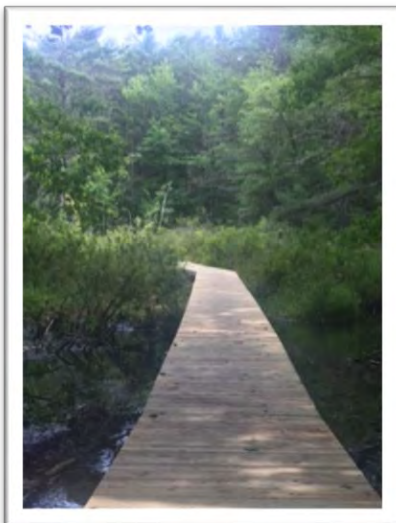


Audited Facility Security Operating Plans (FSOP) for 10 water, wastewater and support facilities

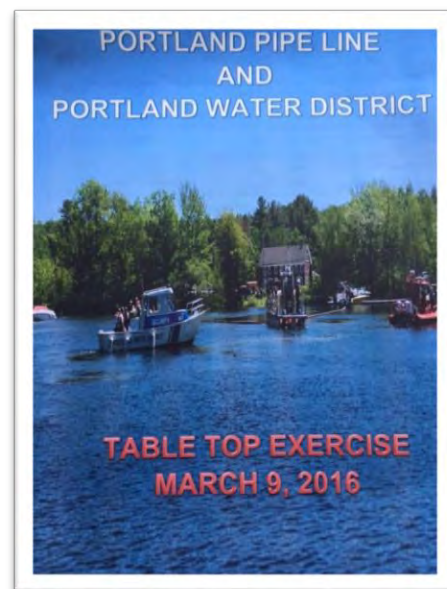
Revisited the 2002 SWAP assessment to update potential sources of contamination.



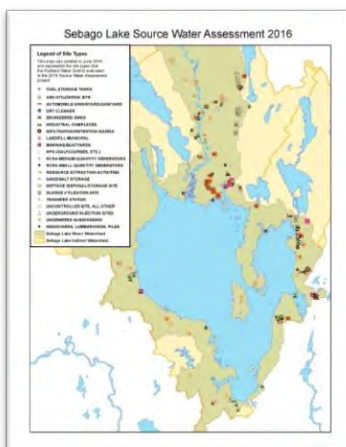
Worked with the town of Standish on the design and construction of the Standish Beach facility and management plan



Worked with General Services on the rebuilding of the sunken wetland boardwalk behind the Lake Office



Participated in a tabletop exercise for a mock pipeline spill near Sebago Lake



2017 Projects and Initiatives

General

- Work with Administrative Facility Chief Operator to complete office space renovation plan for the Ecology Center.
- Continue working on a Water Quality Data Interface (WQDI) to build a graphic interface for displaying water quality data collected from sample locations from the watershed to the distribution system

Source Protection

- Perform inspections of all property development in the shoreland zone of Sebago Lake.
- Provide technical assistance for home owners, road associations and camps to improve storm water quality.
- Utilize Lakescaping Grants funding to promote more on-the-ground water quality improvements in the shoreland zone of Sebago Lake.
- Complete scheduled monitoring and testing for all 18 water quality monitoring programs, analyze the data, and produce applicable water quality assessment reports.
- Continue to work with Lakes Environmental Association and the Cumberland County Soil and Water Conservation District to perform outreach to upper watershed lake associations.
- Continue implementation of the Sebago Lake Phase III federal 319 grant to perform and implement watershed improvement projects based on the watershed-based management plan for Sebago Lake.
- 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.
- Continue implementation of the Pipeline Actin Plan by working with Portland Pipeline to host a pipeline awareness training to help ensure watershed emergency response agencies know what to expect in the event of a pipeline spill in the watershed.
- Amended the District's Watershed Land Conservation Policy to allow for District financial support for conservation of the forested portion of agricultural easements in the watershed.

Environmental Laboratories and Industrial Pretreatment

- Re-certify for testing methods at East End and Sebago Lake laboratories for all analytes reportable to state regulators.
- Report on water quality inquiries including those at dead end locations.
- Provide water quality training to District staff.
- Continue lab safety awareness through hazard analysis, training and improved chemical inventory procedures.
- Manage IPT scheduling and data management through the District's AIM system.
- Continue lab immersion training to wastewater operators to improve data quality and understanding
- Provide nitrogen monitoring at wastewater facilities to support nutrient testing program.

2017 Projects and Initiatives (continued)

District Security

- Lead meetings of the District's Security Committee.
- Work with operations managers to establish and plan to address top security priorities.
- Exercise District's emergency response plan, full scale or table top.
- Patrol Lower Bay by boat during summer, ensuring compliance with body contact and trespassing restrictions.
- Track the impact on visits to District land of the opening of the Standish beach.
- Patrol Sebago Lake Land Reserve year-round to ensure compliance with District land use policy.
- Increase patrol of the Otter Ponds Parcel of the Sebago Lake Land Reserve in an effort to address the growing number of visitors.
- Provide field oversight of District logging operations and track documentation.
- Develop a plan for educational and security-related signage in the Sebago Lake Land Reserve.
- 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 Route 35 kiosk.
- Investigate District business continuity planning needs (Continuity of Operations Plan)
- Perform audits of Facility Security Operating Plans (FSOPs) of District facilities.

Environmental Education and Outreach

- Implement the first year of our new in-school education program, WaterWays, in watershed and service area schools. The same amount of students will be served as in the former HydroLogics program.
- Develop a program of outdoor educational events to enhance our outreach to the public.
- Maintain 2016 level of TroutKids program in watershed and service area schools.
- 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 activities for the public.
- Provide outreach materials to the public including maps, calendars, and brochures.
- Provide support to the Southern Maine Children's Water Festival.

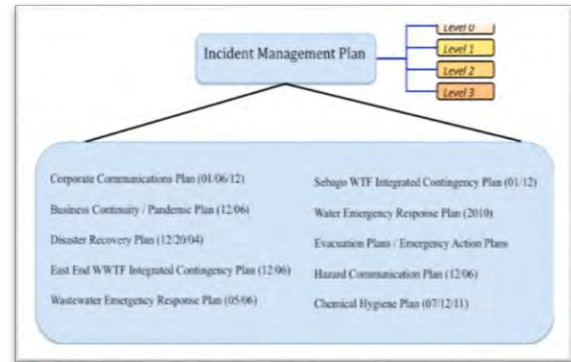
Budget Year 2017 Staffing Changes

- The 2017 budget for A5 includes an increase for the permanent educator position that began in May 2016. The 2017 budget reflects the total annual increase, whereas the 2016 budget was affected for seven months. The permanent educator position replaced two temporary educator positions used to meet the needs of the program for over 10 years. We remain able to serve the same number of students as in our previous programming while providing more effective, consistent education and public outreach opportunities.

2017 Projects and Initiatives



Develop a program of outdoor educational events to enhance our outreach to the public



Support operations in updating Emergency Response Plans



Develop a plan to add educational signage at various sites in the Sebago Lake Land Reserve



Continue outreach to upper watershed lake residents

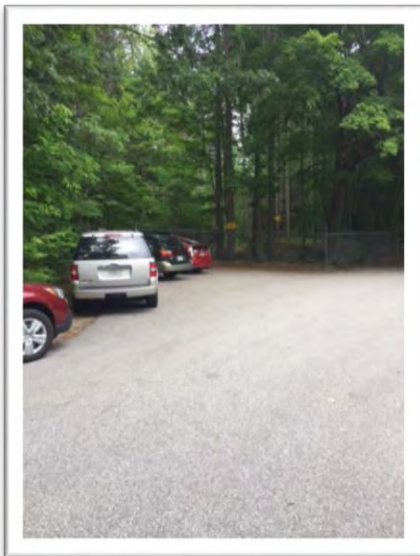


Recertify the two environmental laboratories

2017 Projects and Initiatives



Work with MDOT and CCSWCD on the stormwater measures to accompany the Rt 35 redesign



Enlarge parking area at the Pond Road gate kiosk to support increased number of visitors.



Implement the first year of our new in-school education program, WaterWays, in watershed and service area schools.

2017 Targeted Grants to Watershed Partners			
2017 Proposed	Type	Recipient	Purpose
\$1,500	Teacher Support Grants	Maine Educators	Environmental Education
<i>Provides teaching resources to local teachers to support water education.</i>			
\$16,550	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>			
\$1,000	Lake Protection Support	Maine Lakes Society	Advocacy
<i>A contribution of \$1,000 to Maine Lakes Society to support their operations. Their advocacy benefits all surface supplies including PWD.</i>			
\$1,000	Lake Protection Support	Volunteer Lakes Monitoring Program	Advocacy, Monitoring
<i>A contribution of \$1,000 to support their operations. 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>			
\$13,000	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 recently completed construction of the new 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>			

2017 Targeted Grants to Watershed Partners (Continued)

2017 Proposed	Type	Recipient	Purpose
\$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>			
\$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>			
\$750	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 on Sebago Lake. We work with the Michelle Center to implement a Sebago Lake Track of conference presentations.</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>			
\$38,600	Total Grant Support to Watershed Partners		

Conservation Land acquired by Land Trusts with Portland Water District Financial 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

Financial Overview

The overall Environmental Services budget is up \$7,954 from the 2016 budget, an increase of 0.4%.

A5: Water Resources

- There appears to be a large increase in the budget for Lake Security and a similar-sized decrease in Land Security. This reflects our decision to budget and track these costs separately rather than any significant change in funding for either activity.
- There is an increase of \$18,851 in Employee Benefits. This in part reflects an overall increase in these costs throughout the company and also reflects The fact that we are budgeting for a full year of the new Environmental Educator position. That position was added mid-year 2016.

L6: Laboratory Services

- The laboratory budget is essentially flat with no significant changes in labor or O & M.
- Though the number and hours for employees is unchanged from 2016, some of the allocation of employee hours is shifted, resulting in a decrease in dollars for Sample Analysis offset by increases in dollars allocated for Pretreatment and Tech Ops Support.

Financial Summary:

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
A5 - Water Resources	\$996,523	\$495,005	\$1,080,912	\$1,085,683	\$4,771	0.4%
L6 - Water/WW Laboratory	837,043	438,739	859,053	862,236	3,183	0.4%
Grand Total	1,833,566	933,744	1,939,965	1,947,919	7,954	0.4%
Expense Type:						
Salaries & Wages	955,104	483,722	962,044	979,444	17,400	1.8%
Employee Benefits	436,773	239,910	479,282	505,449	26,167	5.5%
Chemicals	3,843	2,545	4,010	4,210	200	5.0%
Contracted Services	142,290	50,945	134,506	112,276	-22,230	-16.5%
Heat/Fuel Oil	11,649	4,653	15,515	13,600	-1,915	-12.3%
Insurance	2,327	1,171	2,322	2,323	1	0.0%
Materials & Supplies	80,197	46,017	112,251	111,388	-863	-0.8%
Other Expense	146,383	77,596	171,635	163,675	-7,960	-4.6%
Purchased Power	2,834	1,473	3,190	2,992	-198	-6.2%
Tele/Other Utilities	4,113	1,624	6,402	3,630	-2,772	-43.3%
Transportation	48,053	24,088	48,808	48,932	124	0.3%
Grand Total	1,833,566	933,744	1,939,965	1,947,919	7,954	0.4%
Headcount:						
Full-Time	14	15	15	15	0	0.0%
Part-Time	1	1	1	1	0	0.0%
Total	15	16	16	16	0	0.0%

Environmental Services: Total

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$322,835	\$167,789	\$348,563	\$341,076	(\$7,487)	-2.1%
660121 - WAGES/REGULAR UNION	489,038	261,030	503,760	557,908	54,148	10.7%
660122 - WAGES/OVERTIME UNION	32,157	14,472	24,778	22,558	(2,220)	-9.0%
660123 - WAGES/DOUBLETIME UNION	6,348	809	5,869	3,183	(2,686)	-45.8%
660131 - WAGES - REGULAR - TEMPS	89,553	39,612	79,074	54,719	(24,355)	-30.8%
660132 - WAGES - OVERTIME- TEMPS	117	10	-	-	-	n/a
660133 - WAGES - DOUBLETIME - TEMP	78	-	-	-	-	n/a
66014 - VACATION ACCRUAL	1,553	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	13,425	-	-	-	-	n/a
Salaries & Wages Total	955,104	483,722	962,044	979,444	17,400	1.8%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	70,343	36,526	73,598	74,924	1,326	1.8%
660403 - LIFE INSURANCE	-	1,200	-	-	-	n/a
660405 - SAFETY/WHY PROGRAM ITEMS	2,710	998	3,555	3,555	-	0.0%
660411 - MEALS ALLOWANCE	7	-	-	-	-	n/a
6604151 - FIELD UNIFORMS	1,200	55	1,200	1,200	-	0.0%
660418 - STIPENDS	1,500	1,700	1,700	1,900	200	11.8%
660419 - EMPLOYEE BENEFITS-MISC OTH	2,457	-	-	-	-	n/a
660491 - FRINGE BENEFITS-REG/SAL	358,556	199,431	399,229	423,870	24,641	6.2%
Employee Benefits Total	436,773	239,910	479,282	505,449	26,167	5.5%
Chemicals						
661899 - OTHER CHEMICALS	3,843	2,545	4,010	4,210	200	5.0%
Chemicals Total	3,843	2,545	4,010	4,210	200	5.0%
Contracted Services						
66353 - REPAIR SERVICES	1,978	5,276	2,000	2,000	-	0.0%
66354 - MAINTENANCE SERVICES	50,440	21,282	52,646	48,691	(3,955)	-7.5%
663546 - MAINTENANCE - SNOW REMOVL	6,236	4,553	1,500	1,600	100	6.7%
663551 - LAB ANALYSIS	35,670	17,854	52,810	38,635	(14,175)	-26.8%
663553 - PHOTOGRAPHY SERVICES	-	-	-	500	500	n/a
663561 - COMPUTER LICENSES	-	107	-	-	-	n/a
663574 - DISPOSAL SERVICES	5,271	693	5,500	3,600	(1,900)	-34.5%
663587 - COURIER SERVICES	2,113	1,106	2,250	2,250	-	0.0%
663589 - SECURITY SERVICES	28,800	-	-	-	-	n/a
663599 - MISC OTHER SERVICES	530	-	-	-	-	n/a
6636 - TECHNICAL SERVICES	11,252	74	17,800	15,000	(2,800)	-15.7%
Contracted Services Total	142,290	50,945	134,506	112,276	(22,230)	-16.5%
Heat/Fuel Oil						
661622 - CONTAINER DELIVERED	5,646	3,630	8,015	6,600	(1,415)	-17.7%
66166 - UNLEADED GAS	6,003	1,023	7,500	7,000	(500)	-6.7%
Heat/Fuel Oil Total	11,649	4,653	15,515	13,600	(1,915)	-12.3%
Insurance						
66599 - PROPERTY & BOILER INSUR	2,327	1,171	2,322	2,323	1	0.0%
Insurance Total	2,327	1,171	2,322	2,323	1	0.0%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Materials & Supplies						
6619 - ASSET PURCHASES	\$4,602	\$3,154	\$15,700	\$16,000	\$300	1.9%
66202 - TOOLS	84	241	1,150	1,000	(150)	-13.0%
66203 - VENDOR PURCHASED SUPPLIES	7,698	4,419	10,800	10,700	(100)	-0.9%
662042 - SUPPLIES INVENTORY	785	264	1,575	1,325	(250)	-15.9%
662042 - TOOL INVENTORY	135	600	500	350	(150)	-30.0%
662043 - TOOL INVENTORY	458	508	850	650	(200)	-23.5%
66204302 - INVENTORY - PAPER	31	90	-	300	300	n/a
66204303 - INVENTORY-COMPUTER EQUIP	2,297	1,390	3,188	4,513	1,325	41.6%
662047 - GARAGE INVENTORY	48	-	100	100	-	0.0%
66205 - CONSUMABLE SUPPLIES	62,908	33,222	74,100	73,950	(150)	-0.2%
66206 - COMPUTER RELATED EQUIP	1,151	2,129	4,288	2,500	(1,788)	-41.7%
Materials & Supplies Total	80,197	46,017	112,251	111,388	(863)	-0.8%
Other Expense						
66411 - INTERNAL RENTAL CHARGES	48,600	24,300	48,600	48,600	-	0.0%
6642 - EQUIPMENT RENT	180	-	300	300	-	0.0%
66601 - PUBLIC RELATIONS	4,063	790	5,850	6,650	800	13.7%
66609 - OTHER ADVERTISING	1,089	450	1,400	1,900	500	35.7%
6675111 - IN STATE TRAINING/CONF	6,398	3,207	6,800	7,700	900	13.2%
6675112 - OUT OF STATE TRAINING/CON	6,085	2,628	6,500	7,600	1,100	16.9%
667513 - DUES	15,840	14,629	17,035	17,745	710	4.2%
667514 - PROFESSIONAL LICENSES	420	434	4,820	795	(4,025)	-83.5%
667515 - PERIODICAL SUBSCRIPTIONS	156	56	580	410	(170)	-29.3%
667521 - POSTAGE - THIRD PARTY	1,942	3,686	2,800	2,800	-	0.0%
667522 - POSTAGE - INTERNAL	344	938	725	1,100	375	51.7%
667523 - POSTAGE - EXPRESS DELIVER	597	813	600	100	(500)	-83.3%
667531 - PRINTING COSTS	20,682	5,052	25,450	25,400	(50)	-0.2%
667555 - SAFETY EXPENSES	50	526	100	100	-	0.0%
667561 - WATERSHED GRANTS/SUPPORT	33,290	18,250	45,150	38,550	(6,600)	-14.6%
667591 - UNIFORMS	2,448	986	2,800	2,000	(800)	-28.6%
667592 - FOOD SUPPLIES	1,413	621	2,075	1,875	(200)	-9.6%
667599 - OTHER MISCELLANEOUS	2,786	230	50	50	-	0.0%
Other Expense Total	146,383	77,596	171,635	163,675	(7,960)	-4.6%
Purchased Power						
66155 - POWER - SMALL ENERGY	1,602	846	1,813	1,573	(240)	-13.2%
66156 - POWER - SMALL T&D	1,232	627	1,377	1,419	42	3.1%
Purchased Power Total	2,834	1,473	3,190	2,992	(198)	-6.2%
Tele/Other Utilities						
66101 - WATER	232	84	310	310	-	0.0%
66111 - TELEPHONE LINES	-	191	650	1,152	502	77.2%
66112 - DATA LINES	873	299	1,962	540	(1,422)	-72.5%
66113 - CELLULAR PHONES	2,957	1,050	3,480	1,628	(1,852)	-53.2%
66114 - PAGERS	51	-	-	-	-	n/a
Tele/Other Utilities Total	4,113	1,624	6,402	3,630	(2,772)	-43.3%
Transportation						
66501 - TRANSPORTATION - INTERNAL	14,353	8,359	14,869	19,027	4,158	28.0%
665019 - TRANS INTERNAL INACTIVE	24,095	11,069	24,289	20,755	(3,534)	-14.5%
66502 - TRANSPORTATION - EXTERNAL	45	-	-	-	-	n/a
66503 - MILEAGE REIMBURSEMENT	9,560	4,660	9,650	9,150	(500)	-5.2%
Transportation Total	48,053	24,088	48,808	48,932	124	0.3%
Grand Total	1,833,566	933,744	1,939,965	1,947,919	7,954	0.4%

Environmental Services: Water Resources (A5)**Financial Summary:**

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$540,705	\$272,444	\$550,715	\$556,907	\$6,192	1.1%
Employee Benefits	241,404	133,595	269,288	288,139	18,851	7.0%
Contracted Services	60,955	15,307	68,286	60,836	(7,450)	-10.9%
Heat/Fuel Oil	10,923	4,325	14,500	12,700	(1,800)	-12.4%
Insurance	2,327	1,171	2,322	2,323	1	0.0%
Materials & Supplies	16,849	12,410	27,313	27,225	(88)	-0.3%
Other Expense	74,650	32,055	94,745	88,245	(6,500)	-6.9%
Purchased Power	2,834	1,473	3,190	2,992	(198)	-6.2%
Tele/Other Utilities	4,062	1,624	6,402	3,630	(2,772)	-43.3%
Transportation	41,814	20,601	44,151	42,686	(1,465)	-3.3%
Grand Total	996,523	495,005	1,080,912	1,085,683	4,771	0.4%
Programs:						
28 - Monitoring	111,329	47,332	138,690	138,141	(549)	-0.4%
41 - Pretreatment	882	1,109	1,642	1,962	320	19.5%
56 - Tech Ops Support	45,905	15,737	55,615	49,419	(6,196)	-11.1%
78 - Education	95,120	66,485	122,926	113,728	(9,198)	-7.5%
82 - Lake Security - Land	187,122	72,192	170,830	140,839	(29,991)	-17.6%
83 - Customer Outreach	135,193	67,805	132,659	128,871	(3,788)	-2.9%
84 - Lake Security - Water	188	7,175	17,542	43,799	26,257	149.7%
98 - Training	33,516	22,464	48,344	44,029	(4,315)	-8.9%
99 - Administration	387,268	194,706	392,664	424,895	32,231	8.2%
Grand Total	996,523	495,005	1,080,912	1,085,683	4,771	0.4%
Funds:						
10 - General	252,441	130,392	254,793	273,470	18,677	7.3%
20 - Water General	743,200	363,504	824,477	810,251	(14,226)	-1.7%
57 - WW Portland	580	457	505	654	149	29.5%
61 - WW Gorham	121	-	505	654	149	29.5%
62 - WW Westbrook	181	652	632	654	22	3.5%
Grand Total	996,523	495,005	1,080,912	1,085,683	4,771	0.4%
Headcount:						
Full-Time	7	8	8	8	0	0.0%
Part-Time	1	1	1	1	0	0.0%
Total	8	9	9	9	0	0.0%

Environmental Services: Laboratory Service (L6)**Financial Summary:**

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$414,399	\$211,278	\$411,329	\$422,537	\$11,208	2.7%
Employee Benefits	195,369	106,315	209,994	217,310	7,316	3.5%
Chemicals	3,843	2,545	4,010	4,210	200	5.0%
Contracted Services	81,335	35,638	66,220	51,440	(14,780)	-22.3%
Heat/Fuel Oil	726	328	1,015	900	(115)	-11.3%
Materials & Supplies	63,348	33,607	84,938	84,163	(775)	-0.9%
Other Expense	71,784	45,541	76,890	75,430	(1,460)	-1.9%
Transportation	6,239	3,487	4,657	6,246	1,589	34.1%
Grand Total	837,043	438,739	859,053	862,236	3,183	0.4%
Programs:						
41 - Pretreatment	64,650	38,744	61,272	71,250	9,978	16.3%
56 - Tech Ops Support	64,730	40,950	66,090	80,301	14,211	21.5%
63 - Sample Analysis	360,181	195,768	425,053	398,063	(26,990)	-6.3%
78 - Education	1,105	164	238	623	385	161.8%
98 - Training	29,433	19,557	28,970	30,230	1,260	4.3%
99 - Administration	316,944	143,556	277,430	281,769	4,339	1.6%
Grand Total	837,043	438,739	859,053	862,236	3,183	0.4%
Funds:						
10 - General	261,123	126,959	244,344	225,574	(18,770)	-7.7%
20 - Water General	256,159	136,713	223,275	257,998	34,723	15.6%
50 - Wastewater General	224,862	119,579	282,288	275,499	(6,789)	-2.4%
51 - WW Cape Elizabeth	1,155	3,124	5,939	1,900	(4,039)	-68.0%
57 - WW Portland	53,253	28,386	64,001	56,311	(7,690)	-12.0%
61 - WW Gorham	4,528	3,162	4,164	5,012	848	20.4%
62 - WW Westbrook	25,647	15,558	19,722	29,228	9,506	48.2%
64 - WW Joint Westbrook	9,519	4,721	13,232	7,002	(6,230)	-47.1%
66 - WW Peaks Island	797	537	2,088	3,712	1,624	77.8%
Grand Total	837,043	438,739	859,053	862,236	3,183	0.4%
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%

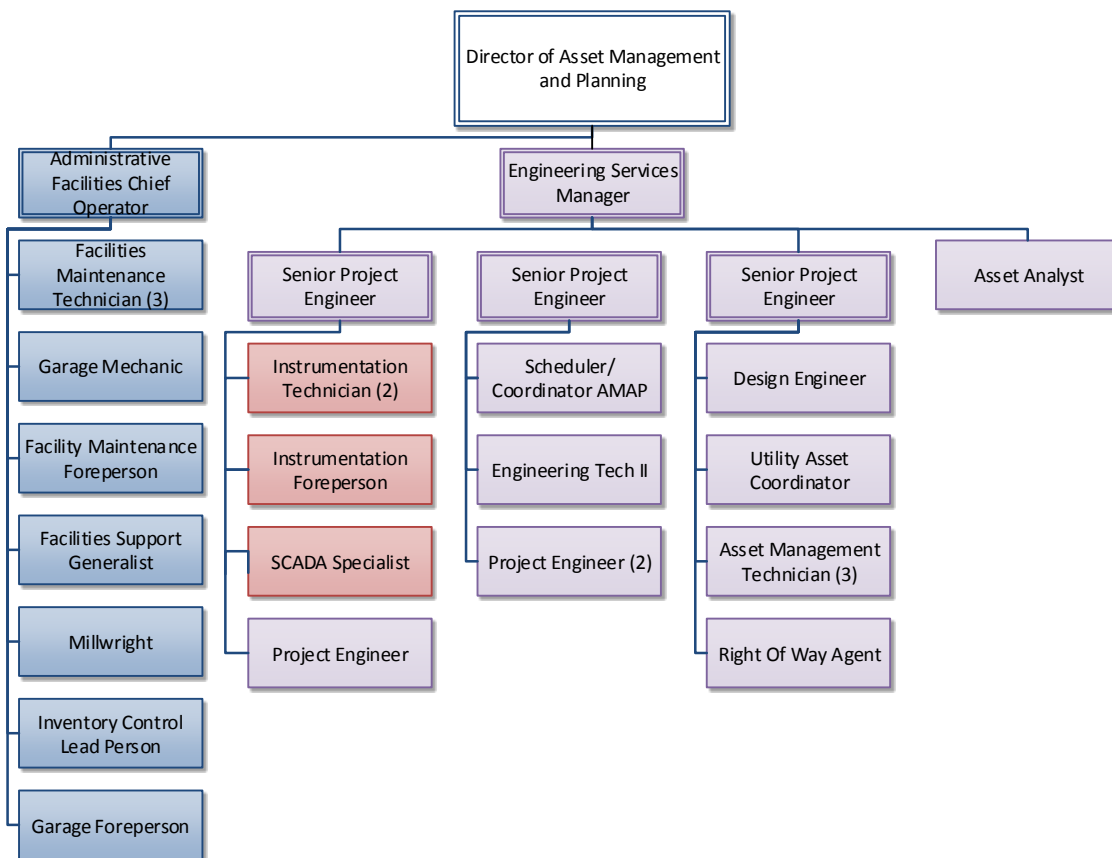
Engineering Services - Purpose Statement

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

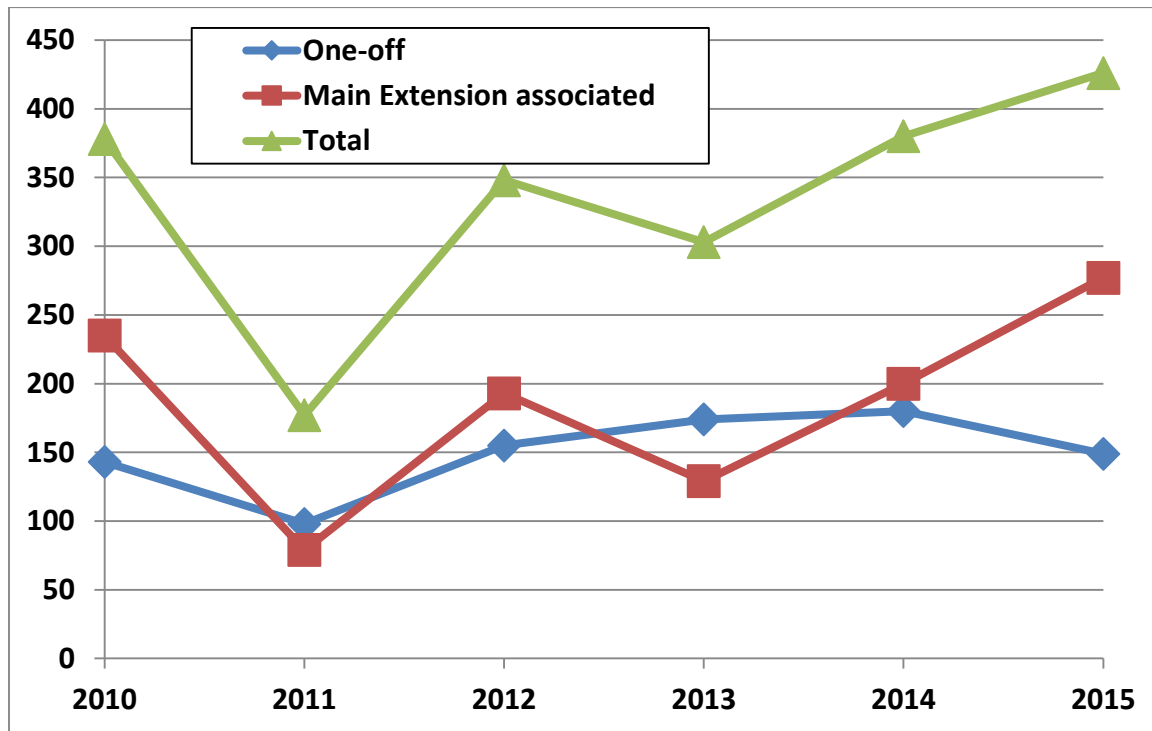
Engineering Services is responsible for providing engineering and maintenance services to internal and external customers. They are responsible for the following services:

- 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	142
Facility Processes & Systems	1,314
Equipment/Components	10,262
Vehicles/Heavy Equipment	111
Water Service Association Assets (meters, backflows, etc.)	212,165
Water Field Assets	46,666
Sewer Field Assets	6,727
Total Assets	277,436

Performance Benchmarks

Corporate Goal – Reliability

Leaks per 100 miles of main

2015 Actual

12.4

2016 Budget

<20

2017 Budget

<20

Main Renewals, feet

15,400

30,000

30,000

Main Extensions, feet

22,100

18,000

25,000

Corporate Goal - Affordability

New Water Services

426

350

450

Corporate Goal – Employees and Work Environment

Employee Training Hours

75

80

80

Past Accomplishments

- Managed design and installation of more than 3 miles of water main replacements and 4 miles of extensions.
- Oversaw design and construction of facility projects at EEWTF (Aeration Upgrade), Fore River Pump Station (Pump Upgrade) and Wards Hill (Water Booster Pump Station).
- Managed studies at WRWWTF (Clarifier Study), Wastewater Facility Electrical Study.
- Managed design and construction of water main replacement program.
- Worked with wastewater operations staff to improve asset data and AIM understanding.
- Managed facilities projects across District including: Douglass St Office gate replacement, HVAC upgrade and parking lot rebuild, Shore Acres Tank repainting, Ecology Center renovations and Fore River Pump Station roof replacement.
- Implemented monthly Stockroom self-audits.

2017 Projects and Initiatives

Corporate Goal – Public Health

- Continue lead/support role of design and construction of EEWTF aeration upgrade project.

Corporate Goals – Reliability and Affordability

- Manage and support wastewater vertical asset upgrade projects (EEWTF, Dana Court PS, etc.).
- Improve prioritization system for water main replacement programs and manage design and delivery of projects.
- Support improvements in wastewater project scoping to enable enhanced capital planning.
- Work with Wastewater Ops, Water Ops, and Environmental Services to improve quality and effectiveness of AIM data.
- Continue improvements in MEANS work process for improved customer service and reduced turn-around time.
- Lead and support improvements in vertical asset data standards and analysis leading to more efficient use of financial and staff resources.
- Manage facilities projects around District including Douglass Street HVAC master plan, Nixon Room HVAC upgrade and third floor wall replacement, EEWTF repaving and various security projects.

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.

2016 Highlights



Teamed with IT, Operations and Facilities groups to improve SCADA backbone



Successfully managed EEWTF Aeration Upgrade project including accelerated schedule and teaming with wastewater operations.



Lead teaming to design and install emergency force main replacement – Peabbles Cove

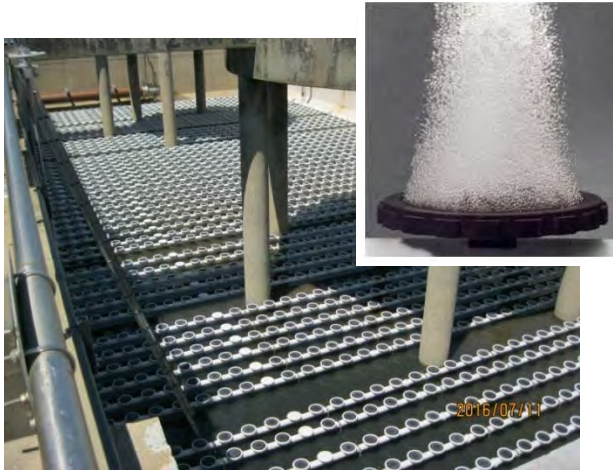


Successfully partnered with Municipalities and Developers to deliver water main replacement program through District

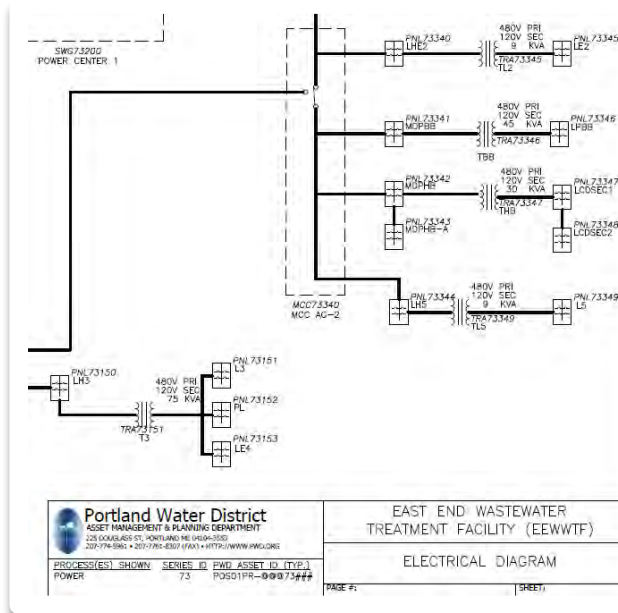


Successfully managed repainting of Shore Acres Tank

2017 Projects and Initiatives



Manage and oversee EEWTF Aeration Upgrade project



Continue to lead and support implementation of improved vertical asset definitions in AIM through teaming with Water and Wastewater Operations groups



Implement second phase of SCADA radio change out project



Continue improvements to Douglass St facility including HVAC master plan, Nixon Room HVAC upgrade, and third floor wall replacement



Lead program to prioritize, design and construct expanded water main replacement program

Financial Overview

The Engineering Services 2017 budget request is \$4,104,732 which is \$87,583 or 2.2% 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 \$40,724 or 2.0% reflecting Salaries/Wages/Benefits increases offset by lower gasoline costs and transportation costs.

Asset Engineering's budget decreases by \$38,124 or 2.4%, primarily related to reflecting Salaries/Wages/Benefits increases.

Instrumentations' budget increase is \$8,735 or 2.0% higher due to Salaries/Wages/Benefits increases.

Significant Expense Type changes in 2016 are listed below:

Salaries, Wages and Employee Benefits

No changes in the total number of employees are planned for 2017.

Contracted Services

The line item includes an increase of \$61,610 to reflect costs related to higher levels of facility maintenance and vehicle location tracking.

Heat/Fuel Oil

This line was decreased \$24,688 (20.5%) to reflect the decrease in per gallon costs for Douglass Street heating oil.

Purchased Power

The line item includes an increase of \$9,551 to reflect higher electricity unit prices.

Transportation

The line item includes a decrease in internal transportation costs (active and inactive) of \$14,623 due primarily to lower fuel costs.

Engineering Services – Total

Financial Summary

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
C1 - Facilities Services	\$1,823,779	\$972,908	\$2,005,047	\$2,045,771	\$40,724	2.0%
E2 - Asset Engineering	1,484,106	700,943	1,571,786	1,609,910	38,124	2.4%
E7 - Instrumentation	292,025	171,481	440,316	449,051	8,735	2.0%
Grand Total	3,599,910	1,845,332	4,017,149	4,104,732	87,583	2.2%
Expense Type:						
Salaries & Wages	1,562,907	780,648	1,777,895	1,820,920	43,025	2.4%
Employee Benefits	790,394	424,848	954,424	982,611	28,187	3.0%
Contracted Services	382,071	198,621	441,050	502,660	61,610	14.0%
Deferred Cost W/O	19,402	6,662	14,400	14,400	-	0.0%
Heat/Fuel Oil	119,739	60,740	120,200	95,512	(24,688)	-20.5%
Insurance	36,605	21,951	40,687	40,934	247	0.6%
Materials & Supplies	481,073	260,081	520,565	506,903	(13,662)	-2.6%
Other Expense	(53,535)	(50,701)	(114,000)	(116,900)	(2,900)	2.5%
Purchased Power	68,934	33,345	74,221	83,772	9,551	12.9%
Tele/Other Utilities	94,365	46,556	84,137	84,973	836	1.0%
Transportation	97,955	62,581	103,570	88,947	(14,623)	-14.1%
Grand Total	3,599,910	1,845,332	4,017,149	4,104,732	\$87,583	2.2%
Headcount:						
Full-Time	30	30	30	30	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	30	30	30	30	0	0.0%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$829,308	\$407,724	\$994,547	\$1,016,712	\$22,165	2.2%
660121 - WAGES/REGULAR UNION	666,464	363,749	732,341	751,604	19,263	2.6%
660122 - WAGES/OVERTIME UNION	7,678	2,852	9,608	11,254	1,646	17.1%
660123 - WAGES/DOUBLETIME UNION	237	-	1,347	1,471	124	9.2%
660124 - WAGES/STANDBY TIME UNION	393	-	769	790	21	2.7%
660131 - WAGES - REGULAR - TEMPS	36,367	6,323	39,283	39,089	(194)	-0.5%
660136 - CONTRACTED - TEMP	19,200	-	-	-	-	n/a
66014 - VACATION ACCRUAL	7,201	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	(3,941)	-	-	-	-	n/a
Salaries & Wages Total	1,562,907	780,648	1,777,895	1,820,920	43,025	2.4%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	113,598	58,679	136,006	139,300	3,294	2.4%
660405 - SAFETY/WHY PROGRAM ITEMS	5,418	1,069	6,645	7,250	605	9.1%
660411 - MEALS ALLOWANCE	100	-	100	100	-	0.0%
660418 - STIPENDS	3,300	2,400	2,800	2,200	(600)	-21.4%
660419 - EMPLOYEE BENEFITS-MISC OTH	7,867	2,012	-	-	-	n/a
660491 - FRINGE BENEFITS-REG/SAL	660,111	360,688	808,873	833,761	24,888	3.1%
Employee Benefits Total	790,394	424,848	954,424	982,611	28,187	3.0%
Contracted Services						
6631 - ENGINEERING SERVICES	28,789	4,725	5,000	5,000	-	0.0%
663524 - STREET OPENING	719	1,891	-	-	-	n/a
663525 - CONTRACTOR CONSTRUCTION	(6,720)	975	-	-	-	n/a
66353 - REPAIR SERVICES	7,019	1,683	10,000	15,000	5,000	50.0%
66354 - MAINTENANCE SERVICES	216,972	115,858	246,350	271,400	25,050	10.2%
663546 - MAINTENANCE - SNOW REMOVL	9,018	2,841	22,000	22,000	-	0.0%
663561 - COMPUTER LICENSES	24,984	23,762	26,450	28,950	2,500	9.5%
663563 - COMPUTER CONSULTING/OTHER	-	394	1,000	1,200	200	20.0%
663574 - DISPOSAL SERVICES	18,001	5,468	23,500	23,500	-	0.0%
663587 - COURIER SERVICES	8,453	4,423	9,000	8,860	(140)	-1.6%
663588 - EQUIPMENT MAINTENANCE	-	-	5,250	5,250	-	0.0%
663589 - SECURITY SERVICES	71,470	36,402	82,000	84,000	2,000	2.4%
6635985 - VEHICLE FLEET GPS SERVICE	-	-	7,000	30,000	23,000	328.6%
663599 - MISC OTHER SERVICES	3,098	199	2,500	2,500	-	0.0%
6636 - TECHNICAL SERVICES	268	-	1,000	5,000	4,000	400.0%
Contracted Services Total	382,071	198,621	441,050	502,660	61,610	14.0%
Deferred Cost W/O						
66754 - DEFERRED COSTS WRITE OFF	19,402	6,662	14,400	14,400	-	0.0%
Deferred Cost W/O Total	19,402	6,662	14,400	14,400	-	0.0%
Heat/Fuel Oil						
66161 - HEATING OIL	104,426	55,276	102,220	77,520	(24,700)	-24.2%
661621 - PIPELINE DELIVERED PROPAN	1,992	795	1,980	1,992	12	0.6%
66166 - UNLEADED GAS	13,321	4,669	16,000	16,000	-	0.0%
Heat/Fuel Oil Total	119,739	60,740	120,200	95,512	(24,688)	-20.5%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Insurance						
6656 - VEHICAL INSURANCE	\$27,749	\$14,490	\$28,564	\$28,980	\$416	1.5%
66561 - VEHICAL INSURANCE REIMBUR	(3,225)	1,484	-	-	-	n/a
66593 - UMBRELLA INSURANCE COVER	5,538	2,701	5,584	5,402	(182)	-3.3%
66599 - PROPERTY & BOILER INSUR	6,543	3,276	6,539	6,552	13	0.2%
Insurance Total	36,605	21,951	40,687	40,934	247	0.6%
Materials & Supplies						
6619 - ASSET PURCHASES	13,668	26,500	32,050	46,250	14,200	44.3%
66202 - TOOLS	8,994	2,631	9,000	9,000	-	0.0%
66203 - VENDOR PURCHASED SUPPLIES	154,034	82,472	164,150	190,150	26,000	15.8%
662041 - MATERIALS INVENTORY	(4,588)	466	8,850	8,850	-	0.0%
662042 - SUPPLIES INVENTORY	18,663	7,101	19,950	20,050	100	0.5%
662043 - TOOL INVENTORY	9,816	4,251	10,550	11,050	500	4.7%
66204302 - INVENTORY - PAPER	522	333	500	500	-	0.0%
66204303 - INVENTORY-COMPUTER EQUIP	5,410	3,114	2,700	3,913	1,213	44.9%
662044 - METER INVENTORY	6,529	2,653	-	-	-	n/a
662046 - HYDRANT INVENTORY	4,843	1,077	-	-	-	n/a
662047 - GARAGE INVENTORY	8,898	5,709	8,975	10,475	1,500	16.7%
66204701 - INVENTORY - UNLEADED GAS	150,498	74,289	150,480	110,580	(39,900)	-26.5%
66204702 - INVENTORY - DIESEL	71,404	33,861	78,010	60,610	(17,400)	-22.3%
66204703 - INVENTORY - TIRES	17,990	8,298	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	1,083	865	3,550	3,400	(150)	-4.2%
66206 - COMPUTER RELATED EQUIP	13,309	6,481	16,800	17,075	275	1.6%
Materials & Supplies Total	481,073	260,081	520,565	506,903	(13,662)	-2.6%
Other Expense						
6642 - EQUIPMENT RENT	1,065	1,038	2,500	2,500	-	0.0%
66609 - OTHER ADVERTISING	-	1,173	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	20,389	6,920	22,150	21,500	(650)	-3.4%
6675112 - OUT OF STATE TRAINING/CON	4,271	3,852	6,100	6,100	-	0.0%
667513 - DUES	2,123	1,289	2,850	2,850	-	0.0%
667514 - PROFESSIONAL LICENSES	1,413	822	3,650	3,650	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	512	-	550	550	-	0.0%
667516 - PERMITS	775	765	2,500	2,500	-	0.0%
667522 - POSTAGE - INTERNAL	211	227	500	400	(100)	-20.0%
667523 - POSTAGE - EXPRESS DELIVER	1,064	610	1,050	1,050	-	0.0%
667552 - SAFETY TRAINING	-	337	500	500	-	0.0%
667555 - SAFETY EXPENSES	1,034	-	1,500	1,500	-	0.0%
667556 - FREIGHT CHARGES (STOCK)	9,620	4,684	5,000	6,500	1,500	30.0%
667592 - FOOD SUPPLIES	-	-	50	50	-	0.0%
667599 - OTHER MISCELLANEOUS	9,680	5,352	600	550	(50)	-8.3%
6676 - EXPENSE OFFSET	(105,692)	(77,770)	(163,500)	(167,100)	(3,600)	2.2%
Other Expense Total	(53,535)	(50,701)	(114,000)	(116,900)	(2,900)	2.5%
667592 - FOOD SUPPLIES	-	-	50	50	-	0.0%
667599 - OTHER MISCELLANEOUS	2,168	6,258	500	600	100	20.0%
6676 - RENT/CAPITAL OFFSET	(159,842)	(58,296)	(104,200)	(163,500)	(59,300)	56.9%
Other Expense Total	(131,945)	(34,913)	(58,000)	(114,000)	(56,000)	96.6%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Purchased Power						
66153 - POWER - MEDIUM ENERGY	\$45,794	\$22,151	\$47,841	\$53,089	\$5,248	11.0%
66154 - POWER - MEDIUM T&D	20,595	9,724	23,108	27,525	4,417	19.1%
66155 - POWER - SMALL ENERGY	1,413	844	1,862	1,666	(196)	-10.5%
66156 - POWER - SMALL T&D	1,132	626	1,410	1,492	82	5.8%
Purchased Power Total	68,934	33,345	74,221	83,772	9,551	12.9%
Tele/Other Utilities						
66101 - WATER	31,112	11,302	22,250	18,000	(4,250)	-19.1%
66103 - STORMWATER CHARGES	-	7,602	5,328	13,684	8,356	156.8%
66111 - TELEPHONE LINES	27,835	12,106	26,369	22,905	(3,464)	-13.1%
66112 - DATA LINES	29,205	12,403	23,766	23,720	(46)	-0.2%
66113 - CELLULAR PHONES	5,868	2,786	6,120	6,664	544	8.9%
66114 - PAGERS	345	357	304	-	(304)	-100.0%
Tele/Other Utilities Total	94,365	46,556	84,137	84,973	836	1.0%
Transportation						
66501 - TRANSPORTATION - INTERNAL	35,299	32,081	66,921	43,356	(23,565)	-35.2%
665019 - TRANS INTERNAL INACTIVE	53,581	29,056	28,849	38,391	9,542	33.1%
66502 - TRANSPORTATION - EXTERNAL	7,548	543	3,250	3,250	-	0.0%
66503 - MILEAGE REIMBURSEMENT	1,527	901	4,550	3,950	(600)	-13.2%
Transportation Total	97,955	62,581	103,570	88,947	(14,623)	-14.1%
Grand Total	3,599,910	1,845,332	4,017,149	4,104,732	87,583	2.2%

Engineering Services - Facilities Services (C1)**Financial Summary**

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$463,012	\$238,504	\$491,505	\$506,688	\$15,183	3.1%
Employee Benefits	229,245	126,745	262,058	271,053	8,995	3.4%
Contracted Services	325,885	166,740	406,100	465,010	58,910	14.5%
Heat/Fuel Oil	119,739	60,740	120,200	95,512	(24,688)	-20.5%
Insurance	36,605	21,951	40,687	40,934	247	0.6%
Materials & Supplies	463,865	243,456	483,140	467,753	(15,387)	-3.2%
Other Expense	(11,948)	4,309	300	(1,800)	(2,100)	-700.0%
Purchased Power	68,934	33,345	74,221	83,772	9,551	12.9%
Tele/Other Utilities	82,269	41,291	72,111	74,269	2,158	3.0%
Transportation	46,173	35,827	54,725	42,580	(12,145)	-22.2%
Grand Total	1,823,779	972,908	2,005,047	2,045,771	40,724	2.0%
Programs:						
23 - Stockroom Operations	133,163	61,290	124,851	130,653	5,802	4.6%
24 - Distribution Operations	64,246	25,517	54,452	55,378	926	1.7%
30 - Maintenance	140,862	108,336	241,624	234,439	(7,185)	-3.0%
55 - Prof Ops Support	76,162	39,855	62,752	64,046	1,294	2.1%
90 - Vehicles	591,296	289,712	638,863	631,469	(7,394)	-1.2%
93 - Stockroom Scrap	1,023	3,373	250	250	-	0.0%
95 - Douglass Street	651,202	358,106	727,071	758,829	31,758	4.4%
98 - Training	34,921	26,963	39,011	38,916	(95)	-0.2%
99 - Administration	130,904	59,756	116,173	131,791	15,618	13.4%
Grand Total	1,823,779	972,908	2,005,047	2,045,771	40,724	2.0%
Funds:						
10 - General	1,408,323	734,483	1,521,118	1,561,005	39,887	2.6%
20 - Water General	336,899	184,712	332,036	341,505	9,469	2.9%
30 - Water Standish	846	677	6,050	4,514	(1,536)	-25.4%
51 - WW Cape Elizabeth	11,795	12,995	23,196	24,648	1,452	6.3%
53 - WW Cumberland	3,650	2,843	10,744	9,387	(1,357)	-12.6%
55 - WW Windham LF	458	367	39	-	(39)	-100.0%
57 - WW Portland	34,001	13,442	83,275	77,538	(5,737)	-6.9%
61 - WW Gorham	10,321	3,916	7,813	7,991	178	2.3%
62 - WW Westbrook	1,930	1,079	4,920	4,080	(840)	-17.1%
64 - WW Joint Westbrook	10,471	7,011	11,263	11,484	221	2.0%
65 - WW Joint LF	1,204	933	1,200	1,220	20	1.7%
66 - WW Peaks Island	3,881	10,450	3,393	2,399	(994)	-29.3%
Grand Total	1,823,779	972,908	2,005,047	2,045,771	40,724	2.0%
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

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$956,757	\$459,626	\$1,056,497	\$1,079,871	\$23,374	2.2%
Employee Benefits	485,725	253,480	567,795	584,211	16,416	2.9%
Contracted Services	24,260	8,119	10,250	10,450	200	2.0%
Deferred Cost W/O	19,402	6,662	14,400	14,400	0	0.0%
Materials & Supplies	17,461	13,563	15,050	16,825	1,775	11.8%
Other Expense	-56,334	-58,924	-125,550	-125,650	-100	0.1%
Tele/Other Utilities	8,883	3,799	8,604	7,924	-680	-7.9%
Transportation	27,952	14,618	24,740	21,879	-2,861	-11.6%
Grand Total	1,484,106	700,943	1,571,786	1,609,910	38,124	2.4%
Programs:						
57 - Means Coordination	274,214	154,560	299,028	392,060	93,032	31.1%
79 - Amap Services	399,094	164,889	452,270	429,558	-22,712	-5.0%
94 - Technology Teams	158,327	64,140	254,599	222,806	-31,793	-12.5%
98 - Training	59,962	43,102	74,082	76,767	2,685	3.6%
99 - Administration	592,509	274,252	491,807	488,719	-3,088	-0.6%
Grand Total	1,484,106	700,943	1,571,786	1,609,910	38,124	2.4%
Funds:						
10 - General	670,448	325,206	733,257	709,448	-23,809	-3.2%
20 - Water General	602,794	284,079	583,561	639,992	56,431	9.7%
50 - Wastewater General	61,614	26,533	240,568	245,827	5,259	2.2%
51 - WW Cape Elizabeth	5,208	5,232	0	0	0	n/a
53 - WW Cumberland	134	282	0	0	0	n/a
55 - WW Windham LF	0	516	0	0	0	n/a
57 - WW Portland	78,522	38,086	0	243	243	n/a
61 - WW Gorham	201	376	0	0	0	n/a
62 - WW Westbrook	33,371	9,904	14,400	14,400	0	0.0%
64 - WW Joint Westbrook	17,069	10,042	0	0	0	n/a
66 - WW Peaks Island	14,745	687	0	0	0	n/a
Grand Total	1,484,106	700,943	1,571,786	1,609,910	38,124	2.4%
Headcount:						
Full-Time	17	16	16	16	-1	-5.9%
Part-Time	0	0	0	0	0	n/a
Total	17	16	16	16	-1	-5.9%

Engineering Services - Instrumentation Services (E7)

Financial Summary

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$143,138	\$82,518	\$229,893	\$234,361	\$4,468	1.9%
Employee Benefits	75,424	44,623	124,571	127,347	2,776	2.2%
Contracted Services	31,926	23,762	24,700	27,200	2,500	10.1%
Materials & Supplies	(253)	3,062	22,375	22,325	(50)	-0.2%
Other Expense	14,747	3,914	11,250	10,550	(700)	-6.2%
Tele/Other Utilities	3,213	1,466	3,422	2,780	(642)	-18.8%
Transportation	23,830	12,136	24,105	24,488	383	1.6%
Grand Total	292,025	171,481	440,316	449,051	8,735	2.0%
Programs:						
81 - Instrumentation & Contr	191,394	104,619	260,532	274,351	13,819	5.3%
94 - Technology Teams	-	-	1,775	3,798	2,023	114.0%
98 - Training	23,790	11,511	23,764	23,375	(389)	-1.6%
99 - Administration	76,841	55,351	154,245	147,527	(6,718)	-4.4%
Grand Total	292,025	171,481	440,316	449,051	8,735	2.0%
Funds:						
10 - General	100,631	66,862	179,784	174,700	(5,084)	-2.8%
20 - Water General	70,448	46,744	86,284	91,672	5,388	6.2%
50 - Wastewater General	31,366	6,565	108,548	110,389	1,841	1.7%
51 - WW Cape Elizabeth	22,841	6,270	450	450	-	0.0%
53 - WW Cumberland	3,375	201	900	900	-	0.0%
57 - WW Portland	36,581	29,505	62,550	69,140	6,590	10.5%
61 - WW Gorham	3,682	2,033	450	450	-	0.0%
62 - WW Westbrook	5,303	2,795	450	450	-	0.0%
64 - WW Joint Westbrook	11,506	8,232	500	500	-	0.0%
65 - WW Joint LF	2,082	196	-	-	-	n/a
66 - WW Peaks Island	4,210	2,078	400	400	-	0.0%
Grand Total	292,025	171,481	440,316	449,051	8,735	2.0%
Headcount:						
Full-Time	3	4	4	4	0	0.0%
Part-Time	0	0	0	0	0	n/a
Total	3	4	4	4	4	0.0%

Administrative Services - Purpose Statement

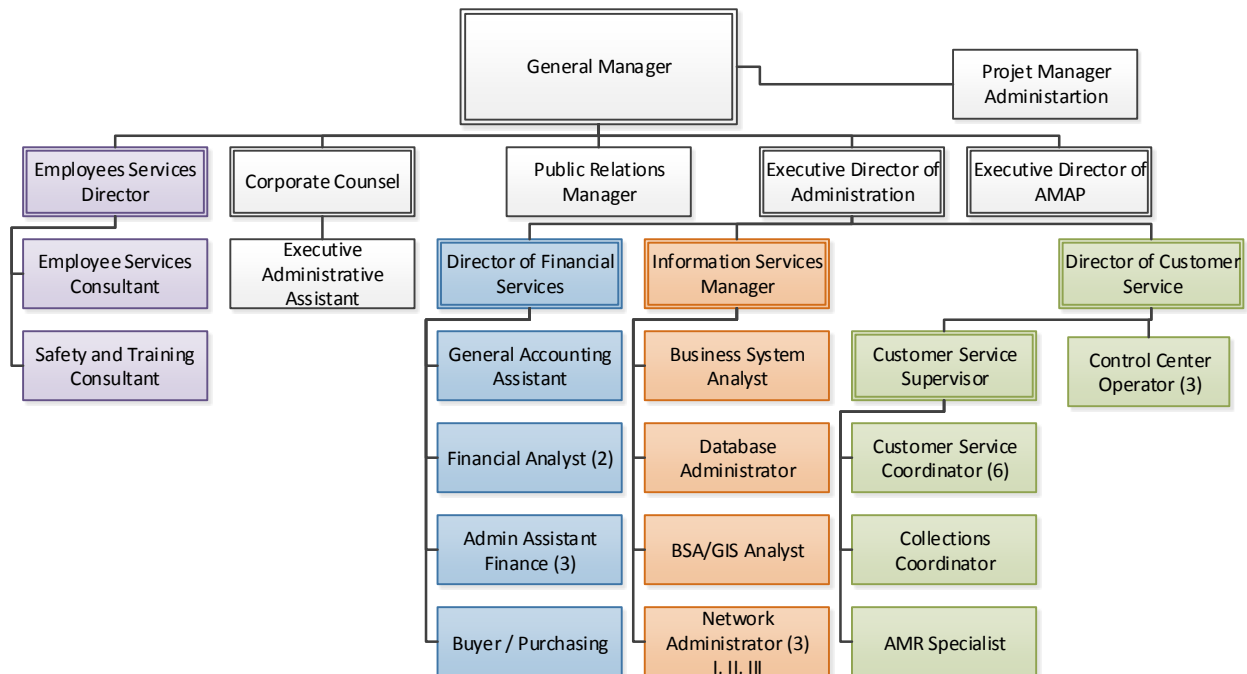
To provide support services to internal and external customers

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. In 2017, a Project Manager Administration position was created to oversee the multi-year project of identifying and implementing a management/customer information system replacement. The Customer Service Program Manager position was eliminated. The person in that position was awarded the Project Manager Administration position.



Past Accomplishments and 2017 Projects and Initiatives

Customer Service

2016 Accomplishments

- **MOU and New Submeter Process**: Met with Cape Elizabeth, Cumberland, Gorham, and South Portland to review Billing Memorandum of Understanding (MOU). The MOU outlines the standard operating procedures the District will follow while providing wastewater billing services for each municipality. The MOU also outlines the proposed new practice of having customer purchase sewer submeters from the municipalities rather than the District starting in 2017.
- **Credit Cards**: Worked with My Online Bill to implement accepting credit card payments on our utility billing website.
- **Rates**: Changed and tested PWD water rates and sewer rates changes for Cape Elizabeth, Portland, South Portland and Cumberland.
- **Large Meter Review**: Working with water operations, a review of the large customer meters was completed and appropriate action was taken to replace meters.

2017 Projects and Initiatives

- **Training**: all three Control Center Operators, CS Supervisor and CS Manager are new employees and will need additional training on office procedures, functions and field training. A general Customer Service Training Program for all departmental employees will offered.
- **WW Billing Partner Visits**: CS Manager field visits to each municipality to discuss every day issues related to sewer billing, adjustments, etc. (things identified in the MOU).
- **Submeter Process**: Implementation of submeter sales by ALL municipalities.
- **Large Customer Review**: Select 5 large customers, research what they do so we know how they use our water and create a presentation. Each year 5 different large customers could be selected.
- **Revised Rates**: Change and test water and sewer rates.
- **Large Meter**: Continue focusing on changing Large Meters with issues and work with Water Operation to implement a Large Meter Test Program.
- **New Billing System**: Customer Service personnel will have a role in supporting the new billing/asset system. Time and effort TBD.

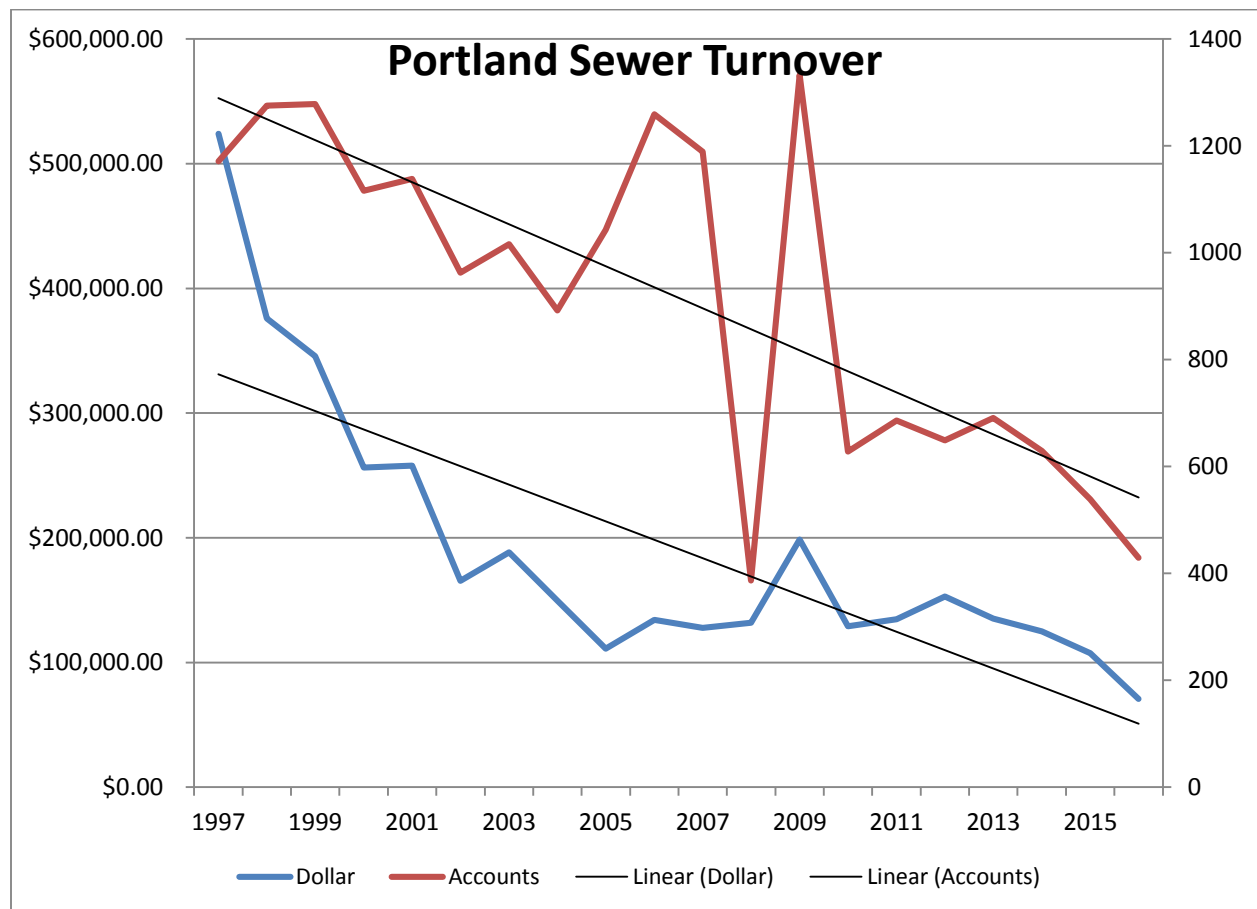
<u>Key Statistics</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
	<u>Actual</u>	<u>Actual</u>	<u>Projected</u>	<u>Goal</u>
Customers Served	54,000	54,300	54,720	55,220
Phone calls answered within 1 min	87.00%	85.00%	84.00%	80.00%
Customer Satisfaction	97.00%	97.00%	97.00%	95.00%
Actual vs Estimated Reads	99.96%	99.60%	99.00%	99.00%
Accurate Bill Index	99.97%	99.96%	99.95%	99.85%
Customer Contacts	53,993	51,923	50,100	50,500
Bills Produced	637,657	642,060	646,600	651,260

Past Accomplishments and 2017 Projects and Initiatives

Customer Service - Revenue Collection

Customer Service manages delinquent accounts through a dunning process that includes customer notices and service disconnection for delinquent accounts with a balance greater than \$101 and 51 days for water only accounts and \$201 and 51 days for water and sewer accounts. The process is very effective in assuring the District collects in revenue. In 2015, the District wrote off only \$27,491 amount of water revenue.

Because of the success in collection water revenues, the sewer municipalities requested their sewer delinquency be incorporated into the program. Starting in 1997, the District incorporated the sewer balance in the collection process for the City of Portland. The success of the program is noted by looking at decrease in the amount sewer dollars and balances not collected and therefore turned over the City so they can begin the property lien process.



Past Accomplishments and 2017 Projects and Initiatives (continued)

Information Services

2016 Accomplishments

System upgrades:

- GIS Server Review - Current GIS server operates on a Windows 2003 OS which is an operating system no longer supported by Microsoft. In 2016 we completed a review of the system and developed a plan to upgrade to Windows Server 2012 in 2017.
- Data switch replacement - We have 38 data switches on our network that are used to move data across the company. In 2016 we replaced 10 of them with switches with a higher port density. This reduced our overall switch count to 30.
- XenApp upgrade - In 2016 we will be upgrading our Citrix XenApp environment to XenApp 8.0.
- Hansen System Evaluation support.
- New Enterprise Reporting Package deployed.
- New data firewalls were installed into the network to increase our security posture.
- SCADA system upgrades.
- Field and remote site connectivity improvements.

Process Improvements:

- SharePoint workflows developed - Job Postings, Comp Time Request, Fixed Capital Approval Process, Employee Action Center.

System Security

- Security Awareness Training – End-user Cyber Security training was conducted throughout the year to raise awareness related to the topic.
- 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.

2017 Projects and Initiatives

System upgrades:

- GIS server upgrade - Current GIS server on Windows 2003 which is an operating system not supported by Microsoft anymore. In 2016, we will be migrating GIS to a Windows 2008 server.
- Migration to VMware for our virtual infrastructure
- SharePoint upgrade - We will be upgrading our current SharePoint Intranet server from SharePoint 2010 to SharePoint 2015.
- Provide support for Hansen upgrade/replacement project.
- Microsoft's 3-year contract renews in 2017. Explorer Office 365 options/pricing/feasibility.

Process Improvements:

- Upgrade of existing data backup process - begin to send backed up data offsite.
- Automating input of several large Accounts Payable processes.

Past Accomplishments and 2017 Projects and Initiatives (continued)

Information Services (continued)

System Security

- Security Awareness Training – Continue End-user Cyber Security training throughout the year to raise awareness related to the topic.
- 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	2015	2016	2017
Servers	38	33	28
Virtual Servers	25	43	58
Laptops	55	56	56
CPU	25	22	28
Thin Clients	130	135	130
Firewall	3	3	6
Switches	28	38	30
Routers	5	4	5
Phone Switches	11	11	11
Desk Phones	168	170	170
Smart Phones	18	17	20
Printers/Scanner	37	27	27
Copiers	8	8	8
iPads	20	23	24
Total	581	590	601

Major Applications:

AutoCAD
 CallRex Call Recording
 Citrix Presentation Server and XenServer
 Crystal Reports
 ESRI Geographic Information Systems
 Hach WIMS
 Hansen Asset Management/Customer Relation
 Informix (1), Oracle (3) and SQL (1) databases
 Microsoft Office 2010
 Pentamotion Financial
 SharePoint Enterprise 2010
 ShoreTel IP Phone System
 Windows Server 2008

Past Accomplishments and 2017 Projects and Initiatives (continued)

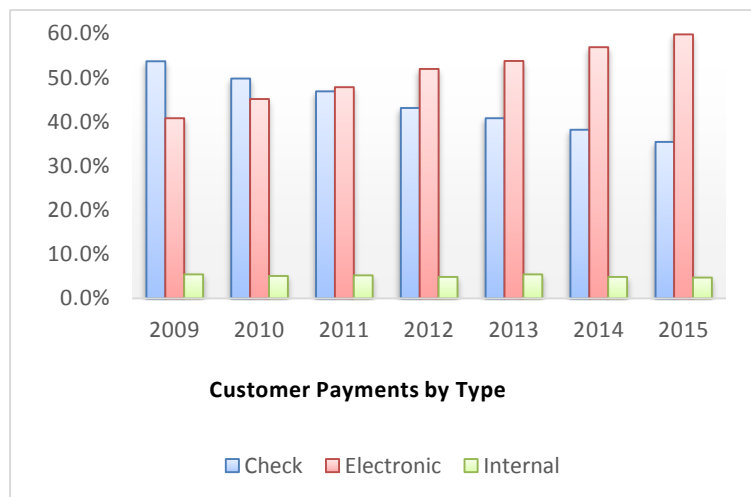
Financial Services

2016 Accomplishments

- Received Government Finance Officers Association's "Certificate of Achievement for Excellence in Financial Reporting" for the 2014 Comprehensive Annual Financial Report (CAFR), and the "Distinguished Budget Presentation Award" for the 2016 Comprehensive Budget Report for the sixth year in a row.
- Created an electronic bond expense tracking process via Access and Crystal reports eliminating large, cumbersome Excel spreadsheets.
- Put in place, in coordination with our bank, a "positive pay" system which will allow us to immediately verify that checks clearing are valid and to identify any fraudulent items.
- Created an electronic query system that allows Finance staff to access journal entries electronically rather than referring to filed hard copies.
- Implemented the District's compliance with the Affordable Care Act (ACA) by creating the required temporary employee categories and the reporting necessary for compliance as well as issuing to employees the new IRS tax forms required by the Act.

2017 Projects and Initiatives

- Support Billing/Work Order system upgrade in concert with the possible need to plan the upgrade/replacement of the Sungard/Pentamotion system.
- Continue to upgrade financial information provided to the Board of Trustees and management through more visual/graphical presentations of financial data.
- Continue review of best practices of Financial systems with Accounts Payable/Purchasing.
- Cross-Training the staff on the different responsibilities of the department with a particular focus on purchasing due to the planned absence of our purchasing agent who will be called up to active duty by the military.



Past Accomplishments and 2017 Projects and Initiatives (continued)

Employee Services

2016 Accomplishments

Training:

A summary of training provided in 2016 is listed below:

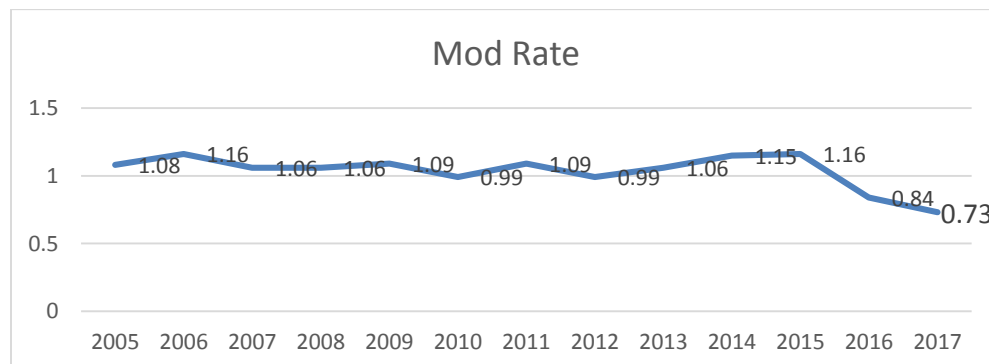
Supervisor workshops topics 'Just Cause in a Union Environment' and 'Effective Performance Evaluations'	Safety Training including: <ul style="list-style-type: none"> • Safety Training included: • Hazard Communications and Safety Data Sheets • VDT • Respiratory Protection/Fit Testing • Fire Extinguisher • Gas Detectors • CPR/First Aid and Blood borne Pathogens
Anti-harassment training	
Active Shooter Awareness Training held and required of all employees.	

Compensation: Conducted bi-annual salary survey for Union and non-union positions. A more comprehensive study is scheduled for this fall for the non-union positions with the implementation of the new FLSA rules effective December 1, 2016.

Retirement Planning:

- Group sessions were well attended and included "Understanding Social Security" and "The Retireview Option", which explained the option under the 457 Plan that allows employees to direct the Principal to utilize the pre-selected funds to design a portfolio that will continue to be re-balanced over the employee's career.
- Individual sessions with the Principal Representative.
- Increased educational communication via multiple sources from emails to links to pertinent webinars to written memos are used as opportunities for retirement planning education.

Worker's Compensation: With pro-active monitoring of claims, including baseline examination of more injuries and root cause investigations, our mod rate has again dropped to the lowest level in over a decade. In 2016 it dropped to .84, saving approximately \$60,000 in premiums, and in 2017 it will drop again to .73. The following is a history of the worker's compensation experience mod rates for PWD:



Past Accomplishments and 2017 Projects and Initiatives (continued)

Employee Services (continued)

2016 Accomplishments (continued)

Health Plan:

We received a 0.64% decrease in the health renewal effective 1/1/16, with no change in our plan design. Both union and non-union employee contributions toward single coverage increased to 6% for calendar year 2016, which is still significantly lower than the national average of 17%.

Union Contract:

A three-year contract was negotiated with the Teamsters Local 340 bargaining unit. The following highlights the most significant changes:

- Monthly meetings with the Union stewards.
- Wage increases of 2.5%, 2.5% and 3% annually.
- Employee's share of single health insurance will increase 1% per year, from 5% to 8%.
- The District increased the match to employee's contributions to a deferred income retirement plan from 3% to 4.5%, with employee contributions over 3% remaining voluntary.
- The defined benefit pension plan will increase by \$1 (approximately 2.8%) in the second year.
- Martin Luther King Day is added to the holiday schedule.
- Two Arbitrations were scheduled and PWD's decision for termination was upheld for one, and we are waiting for the decision on the second.

Safety:

- Hazardous Communication Program and Policy both were updated and modified and all steps taken from verifying inventory from each facility, to updating and matching the inventory with the SDS database, training and replacing all signs and labeling to bring PWD into compliance with the GHS Standard. The effective date for compliance for employers was June 1, 2016.
- Safety documentation and tracking for investigations for vehicle accidents and workplace injuries increased. Major strides across PWD have been made in documenting procedures for lock out tag out. The safety committee was reorganized to include two Union stewards.

2016 SAFETY REQUIRED TRAINING - PWD			
Topic	# Employees	Completed	Compliant
Confined Space	90	1/21 & 2/25	100%
Haz Com/SDS Refresher	182	Month of March/April	94%
VDT On-Line	121	Month of June/July	95%
Active Shooter Awareness	182	June 9th	95%
Respiratory Pro./Fit Testing	47	7/6, 14, 28	99%
Fire Extinguishers	94	8/25; 9/1,8,27	
Gas Detectors	98	Month of Oct./Nov.	
First Aid/CPR 2 Yr. Recertification	88	12/8 & 12/15	
<i>Safety Awareness by Departments</i>			
Dump Truck Pre-Trip Insp. In			
A2	23	8-Jun-16	100%

Life, Long Term and Short Term Disability: Plans were marketed and will remain with Aetna, but at reduced rates, saving the District \$22,116 in the cost of premiums over the three-year rate guarantee period.

Past Accomplishments and 2017 Projects and Initiatives (continued)

Employee Services (continued)

2017 Projects and Initiatives

Employment Data:

Recruitment and terminations data will be captured and analyzed to better understand retention and turnover statistics.

Wellness initiatives:

Adding smoking cessation programs to be determined based on individual needs and schedules. A new walking program will be encouraged and led by Employee Services to encourage increased activity levels. The highly successful wellness fair will continue. This event includes flu shots and wellness screenings to promote overall health.

Supervisory Workshops:

Workshops to continue and include the Reasonable Suspicion Drug and Alcohol Testing process and handling difficult disciplinary meetings with employees.

Policies:

Will continue to be reviewed and revised.

Retirement Planning:

Will continue with group and individual educational sessions.

Safety:

The Blood borne Pathogens Program will be updated, and all employees whose job responsibilities require it have been offered the Hep B shot series. A contract has been negotiated at minimal costs for disposal of sharps and/or other substances as may be needed should an incident occur. All employees will be provided training for the changes to the Program.

Safety Training for 2017 is scheduled to include:

- Lockout Tag out
- Distracted Driving
- Trenching and Excavation and Boxes
- Electrical/Arc Flash, Rigging/Chains/Hoists/Slings
- VDT Training
- Dig Safe
- Supervisor Commercial Driver's License and Drug and Alcohol Awareness
- Blood borne Pathogens

Financial Overview

The Administrative Services budget request is \$5,459,534, which is \$107,652 or 2.0% higher than last year. The number of employees in the area is 40, 1 less than last year. One position is temporarily transferred to the Wastewater department.

Customer Service (F1) Group (\$1,423,026 request; \$118,761 or 7.7% lower)

- Salaries/Wages and Benefits: One less position with the elimination of Program Manager position. Also, the new Customer Service manager is assumed to make lower pay than the retiring current manager.
- Contracted Services: Increase related to costs related to meter reading equipment and software maintenance.
- Materials & Supplies: Includes the purchase of sit/stand work stations.
- Other Expenses: Reduced by \$13,622, or 6.2%, due to lower postage expense as more customer choose to receive bills electronically and lower postage rates.

Information Service (G1) Group (\$994,984 request; \$20,577 or 2.1% higher)

- Salaries/Wages and Benefits: Same number of positions. Increase attributed to general pay increase of 2.5%.
- Contracted Services: Reduced by \$8,800, or 4.1%. due to lower Printer Repair and Computer Consulting Services costs - Newer printing equipment and less reliance on external vendor support do to in-house knowledge and experience.
- Materials and Supplies: Reduced by \$4,100, or 11.2%, due to lower Print Toner and Paper costs – Reduction in total printer count and more employees double siding printing and storing items digitally vs. printing.
- Other Expenses reduced by \$3,450 or 29.8% - Result of decrease in Instate Training budget (6675111) – Training be done more now through online training vs more expensive classroom training.

Financial Services (H1) Group (\$892,043 request; \$12,768 or 1.5% higher)

- Salaries/Wages and Benefits: No change in the number of positions
- Contracted Services: Increase in fees related to higher number on-line payments.
- Deferred Cost W/O: The final amortization of the Pentamation finance computer system was in 2016.

Employee Service (I1) Group (\$443,647 request; \$15,922 or 3.7% higher)

- Salaries/Wages and Benefits: Same number of positions as the prior year.
- Contracted Services: Higher amount estimated for legal expenses in 2016.
- Other Expenses: Increased amount to support the safety program.

Executive (J1) Group (\$1,705,834 request; \$177,146 or 11.6% higher)

- Salaries/Wages and Benefits: Project Manager Administration was added to oversee the work management/customer information computer system conversion.
- Contracted Services: Includes cost to conduct customer satisfaction survey (\$10,000). The once a decade water rate cost of service study (\$20,000) was included in the 2016 budget
- Other Expenses: Decrease due to lower amount allocated to the value of water campaign.

Administrative Services: Combined

Financial Summary:

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Sub-Group:						
F1 - Customer Service	\$1,420,854	\$770,973	\$1,541,787	\$1,423,026	(\$118,761)	-7.7%
G1 - Information Services	931,817	461,642	974,407	994,984	20,577	2.1%
H1 - Financial Services	839,685	478,682	879,275	892,043	12,768	1.5%
I1 - Employee Services	433,129	242,531	427,725	443,647	15,922	3.7%
J1 - BOT & Senior Management	1,335,654	681,353	1,528,688	1,705,834	177,146	11.6%
Grand Total	4,961,139	2,635,181	5,351,882	5,459,534	\$107,652	2.0%
Expense Type:						
Salaries & Wages	2,330,835	1,225,416	2,495,235	2,601,297	106,062	4.3%
Employee Benefits	1,195,751	656,697	1,344,726	1,407,982	63,256	4.7%
Contracted Services	802,023	418,582	779,901	772,047	(7,854)	-1.0%
Deferred Cost W/O	10,086	5,043	10,086	-	(10,086)	-100.0%
Insurance	78,497	45,889	86,804	88,353	1,549	1.8%
Materials & Supplies	74,040	26,880	61,563	59,191	(2,372)	-3.9%
Other Expense	421,052	234,009	525,217	485,557	(39,660)	-7.6%
Tele/Other Utilities	27,548	11,246	26,298	23,580	(2,718)	-10.3%
Transportation	21,307	11,419	22,052	21,527	(525)	-2.4%
Grand Total	4,961,139	2,635,181	5,351,882	5,459,534	\$107,652	2.0%
Headcount*:						
Full-Time	38	39	39	39	0	0.0%
Part-Time	2	1	1	1	0	0.0%
Total	40	40	40	40	0	0.0%

* = One position that was previously in the "Non-Departmental" area was transferred to Wastewater for the 2017 Budget.

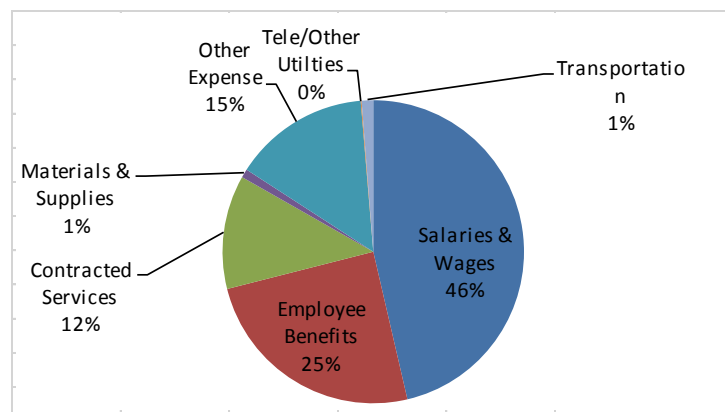
	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages						
660111 - SALARIES/WAGES NON-UNION	\$1,686,353	\$905,213	\$1,837,805	\$1,924,355	\$86,550	4.7%
660121 - WAGES/REGULAR UNION	573,888	299,191	603,287	619,324	16,037	2.7%
660122 - WAGES/OVERTIME UNION	20,190	6,556	17,023	21,263	4,240	24.9%
660131 - WAGES - REGULAR - TEMPS	4,595	1,956	-	-	-	n/a
660136 - CONTRACTED - TEMP	-	-	10,120	9,355	(765)	-7.6%
66014 - VACATION ACCRUAL	9,753	-	-	-	-	n/a
660141 - TRUSTEES COMPENSATION	23,100	12,500	27,000	27,000	-	0.0%
66015 - SICKTIME ACCRUAL	12,956	-	-	-	-	n/a
Salaries & Wages Total	2,330,835	1,225,416	2,495,235	2,601,297	106,062	4.3%
Employee Benefits						
660401 - FICA - EMPLOYERS' SHARE	172,433	92,613	190,112	198,284	8,172	4.3%
660405 - SAFETY/WHY PROGRAM ITEMS	6,239	1,616	5,825	6,275	450	7.7%
660411 - MEALS ALLOWANCE	10	10	80	80	-	0.0%
660418 - STIPENDS	200	200	200	200	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	19,672	1,899	5,100	3,800	(1,300)	-25.5%
660491 - FRINGE BENEFITS-REG/SAL	997,197	560,359	1,143,409	1,199,343	55,934	4.9%
Employee Benefits Total	1,195,751	656,697	1,344,726	1,407,982	63,256	4.7%
Contracted Services						
662062 - PRINTER REPAIR	-	-	2,500	1,000	(1,500)	-60.0%
662063 - COPIER MAINTENANCE/TONER	13,786	9,170	9,500	11,500	2,000	21.1%
6632 - ACCOUNTING SERVICES	32,500	34,000	34,000	34,500	500	1.5%
66331 - LEGAL - LABOR RELATIONS	82,776	60,054	60,000	60,000	-	0.0%
66333 - BOND COUNSEL	7,500	-	7,500	7,500	-	0.0%
66339 - LEGAL - OTHER	41,775	15,372	34,650	34,500	(150)	-0.4%
663545 - RADIO SERVICING AND EQUIP	1,473	4,331	4,500	4,000	(500)	-11.1%
663561 - COMPUTER LICENSES	6,210	2,156	4,000	4,000	-	0.0%
663562 - COMPUTER MAINTENANCE	206,019	96,021	208,569	216,571	8,002	3.8%
663563 - COMPUTER CONSULTING/OTHER	23,586	5,071	32,500	20,000	(12,500)	-38.5%
6635801 - EMPLOYEE HEALTH SERVICES	9,231	3,382	7,600	6,000	(1,600)	-21.1%
663581 - UTILITY BILLING PRINTING	68,976	46,673	76,577	78,721	2,144	2.8%
663582 - PAYMENT PROCESSING	140,967	69,062	134,000	139,300	5,300	4.0%
663583 - RECEIVABLE COLLECTIONS	7,905	3,209	11,000	10,000	(1,000)	-9.1%
663584 - BANK SERVICE CHARGES	19,404	10,529	19,200	20,400	1,200	6.3%
663587 - COURIER SERVICES	4,333	2,219	4,620	4,570	(50)	-1.1%
663588 - EQUIPMENT MAINTENANCE	-	-	1,500	1,500	-	0.0%
663592 - RECRUITING SERVICES	2,444	1,845	7,250	7,250	-	0.0%
663594 - DIGSAFE	70,291	42,648	73,950	71,000	(2,950)	-4.0%
663595 - OUTPLACEMENT SERVICES	-	-	2,000	2,000	-	0.0%
663598 - HR CONSULTANT SERVICES	2,025	793	2,000	2,000	-	0.0%
6635984 - LANGUAGE INTERPRETATION	-	-	300	300	-	0.0%
663599 - MISC OTHER SERVICES	60,822	12,047	42,185	35,435	(6,750)	-16.0%
Contracted Services Total	802,023	418,582	779,901	772,047	(7,854)	-1.0%
Deferred Cost W/O						
66754 - DEFERRED COSTS WRITE OFF	10,086	5,043	10,086	-	(10,086)	-100.0%
Deferred Cost W/O Total	10,086	5,043	10,086	-	(10,086)	-100.0%
Insurance						
6657 - GEN LIABILITY INSURANCE	48,087	24,170	48,002	48,340	338	0.7%
66592 - DAMAGES & CLAIMS-GOODWILL	4,443	761	4,000	4,000	-	0.0%
66593 - UMBRELLA INSURANCE COVER	2,982	1,454	3,007	2,909	(98)	-3.3%
66594 - PROFESSION/CRIME BONDING	22,985	19,504	31,795	33,104	1,309	4.1%
Insurance Total	78,497	45,889	86,804	88,353	1,549	1.8%

	2015 Actual	2016 Jan-Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Materials & Supplies						
6619 - ASSET PURCHASES	3,608	-	6,000	6,000	-	0.0%
66202 - TOOLS	261	74	400	300	(100)	-25.0%
66203 - VENDOR PURCHASED SUPPLIES	1,950	825	3,300	2,600	(700)	-21.2%
662042 - SUPPLIES INVENTORY	2,397	1,534	2,600	2,600	-	0.0%
662043 - TOOL INVENTORY	4,424	1,683	3,075	2,025	(1,050)	-34.1%
66204301 - INVENTORY - TONER	5,186	1,240	8,000	6,000	(2,000)	-25.0%
66204302 - INVENTORY - PAPER	1,963	1,146	5,000	4,000	(1,000)	-20.0%
66204303 - INVENTORY-COMPUTER EQUIP	5,660	1,736	7,200	6,413	(787)	-10.9%
66205 - CONSUMABLE SUPPLIES	2,138	1,086	3,200	3,500	300	9.4%
66206 - COMPUTER RELATED EQUIP	46,453	17,556	22,788	25,753	2,965	13.0%
Materials & Supplies Total	74,040	26,880	61,563	59,191	(2,372)	-3.9%
Other Expense						
6642 - EQUIPMENT RENT	2,505	723	2,950	2,900	(50)	-1.7%
66601 - PUBLIC RELATIONS	628	1,009	1,950	1,500	(450)	-23.1%
66609 - OTHER ADVERTISING	12,875	22,933	38,476	23,476	(15,000)	-39.0%
667511 - TRAINING & CONFERNCES	220	450	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	9,188	3,585	24,750	19,300	(2,100)	-9.8%
6675112 - OUT OF STATE TRAINING/CON	23,412	6,751	27,500	28,000	28,000	n/a
667513 - DUES	40,279	13,958	41,383	41,460	77	0.2%
667514 - PROFESSIONAL LICENSES	657	-	900	900	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	4,174	2,239	5,621	5,721	100	1.8%
667521 - POSTAGE - THIRD PARTY	217,384	119,066	216,067	203,300	(12,767)	-5.9%
667522 - POSTAGE - INTERNAL	14,110	6,930	17,915	15,535	(2,380)	-13.3%
667523 - POSTAGE - EXPRESS DELIVER	69	-	350	350	-	0.0%
667531 - PRINTING COSTS	27,065	15,755	30,800	31,900	1,100	3.6%
667533 - FORMS STOCK	1,363	-	650	900	250	38.5%
667552 - SAFETY TRAINING	1,267	600	1,700	2,900	1,200	70.6%
667553 - DOT SUBSTANCE ABUSE	1,463	173	2,000	2,000	-	0.0%
667555 - SAFETY EXPENSES	3,869	3,404	6,790	10,000	3,210	47.3%
667592 - FOOD SUPPLIES	2,051	125	2,850	2,850	-	0.0%
667598 - GEN MANAGER CONTINGENCY	26,267	349	65,000	55,000	(10,000)	-15.4%
6675981 - GEN MNG - TRUSTEES	6,804	5,688	11,450	11,450	-	0.0%
6675982 - GEN MNG - COMMUNITY	17,459	22,307	24,615	24,615	-	0.0%
667599 - OTHER MISCELLANEOUS	7,943	7,964	1,500	1,500	-	0.0%
Other Expense Total	421,052	234,009	525,217	485,557	(39,660)	-7.6%
Tele/Other Utilities						
66112 - DATA LINES	7,270	5,698	16,398	14,160	(2,238)	-13.6%
66113 - CELLULAR PHONES	20,110	5,410	9,900	9,420	(480)	-4.8%
66114 - PAGERS	168	138	-	-	-	n/a
Tele/Other Utilities Total	27,548	11,246	26,298	23,580	(2,718)	-10.3%
Transportation						
66501 - TRANSPORTATION - INTERNAL	11,737	6,158	11,946	11,772	(174)	-1.5%
665019 - TRANS INTERNAL INACTIVE	4,950	3,759	4,406	4,845	439	10.0%
66502 - TRANSPORTATION - EXTERNAL	799	443	850	850	-	0.0%
66503 - MILEAGE REIMBURSEMENT	3,821	1,059	4,850	4,060	(790)	-16.3%
Transportation Total	21,307	11,419	22,052	21,527	(525)	-2.4%
Grand Total	4,961,139	2,635,181	5,351,882	5,459,534	107,652	2.0%

Administrative Services: Customer Services (F1)

Financial Summary:

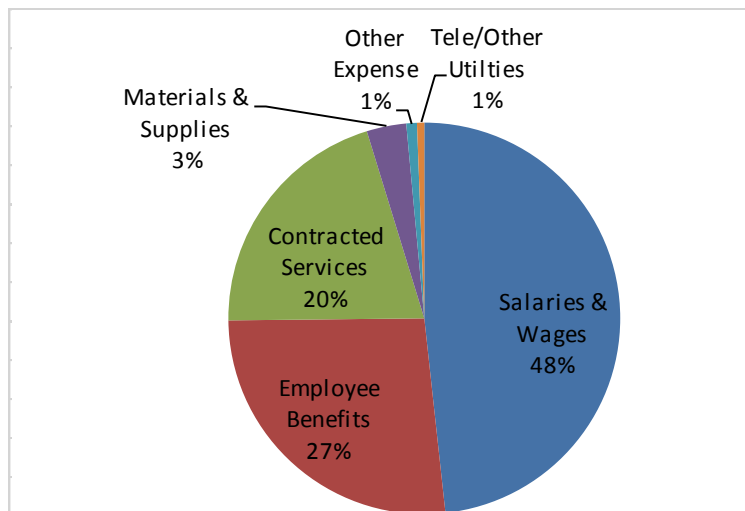
	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$693,570	\$359,848	\$730,998	\$659,720	(\$71,278)	-9.8%
Employee Benefits	348,760	192,616	389,311	351,329	(37,982)	-9.8%
Contracted Services	152,640	92,889	170,371	172,867	2,496	1.5%
Materials & Supplies	8,481	1,299	10,900	13,028	2,128	19.5%
Other Expense	197,988	113,310	220,707	207,085	(13,622)	-6.2%
Tele/Other Utilities	2,232	794	2,148	1,380	(768)	-35.8%
Transportation	17,183	10,217	17,352	17,617	265	1.5%
Grand Total	1,420,854	770,973	1,541,787	1,423,026	(118,761)	-7.7%
Programs:						
74 - Control Center	173,522	100,486	144,269	181,613	37,344	25.9%
76 - Collection	52,751	27,260	60,999	60,365	(634)	-1.0%
77 - Billing	264,694	155,643	307,206	288,490	(18,716)	-6.1%
80 - Meter Reading	71,484	34,514	74,973	85,831	10,858	14.5%
98 - Training	83,758	30,842	62,273	58,602	(3,671)	-5.9%
99 - Administration	774,645	422,228	892,067	748,125	(143,942)	-16.1%
Grand Total	1,420,854	770,973	1,541,787	1,423,026	(118,761)	-7.7%
Funds:						
10 - General	1,367,968	743,610	1,480,788	1,362,661	(118,127)	-8.0%
20 - Water General	33,151	17,004	39,978	39,043	(935)	-2.3%
30 - Water Standish	1,635	697	1,737	1,794	57	3.3%
51 - WW Cape Elizabeth	1,289	535	1,071	1,100	29	2.7%
53 - WW Cumberland	462	303	330	338	8	2.4%
54 - WW Falmouth	629	418	482	495	13	2.7%
55 - WW Windham LF	-	-	37	-	(37)	-100.0%
57 - WW Portland	8,053	3,961	9,500	9,758	258	2.7%
59 - WW South Portland	3,305	1,990	3,691	3,791	100	2.7%
61 - WW Gorham	1,322	801	923	947	24	2.6%
62 - WW Westbrook	2,905	1,654	3,250	3,099	(151)	-4.6%
66 - WW Peaks Island	135	-	-	-	-	n/a
Grand Total	1,420,854	770,973	1,541,787	1,423,026	(118,761)	-7.7%
Headcount:						
Full-Time	14	14	14	13	(1)	-7.1%
Part-Time	0	0	0	0	0	n/a
Total	14	14	14	13	-1	-7.1%



Administrative Services: Information Services (G1)

Financial Summary:

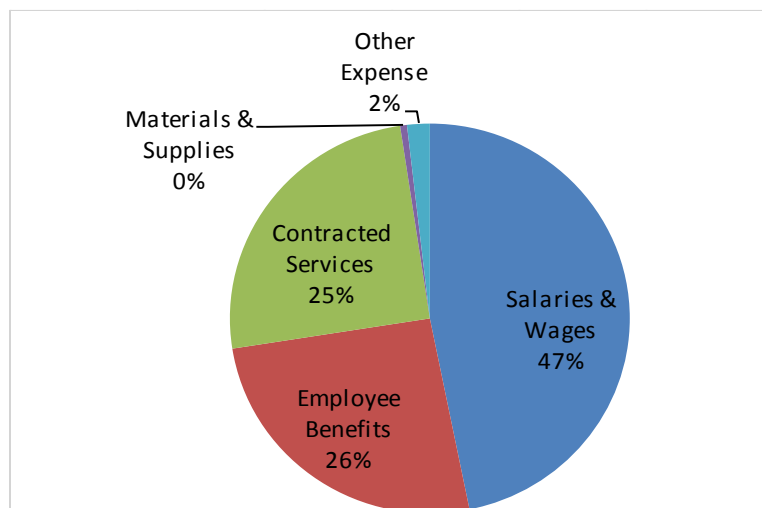
	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$431,332	\$236,244	\$456,886	\$480,342	\$23,456	5.1%
Employee Benefits	224,656	127,714	249,958	264,227	14,269	5.7%
Contracted Services	203,637	73,131	212,050	203,250	(8,800)	-4.1%
Materials & Supplies	58,197	20,117	36,600	32,500	(4,100)	-11.2%
Other Expense	5,696	1,379	11,575	8,125	(3,450)	-29.8%
Tele/Other Utilities	6,866	2,629	6,738	5,940	(798)	-11.8%
Transportation	1,433	428	600	600	-	0.0%
Grand Total	931,817	461,642	974,407	994,984	20,577	2.1%
Programs:						
98 - Training	63,428	7,651	36,397	34,600	(1,797)	-4.9%
99 - Administration	868,389	453,991	938,010	960,384	22,374	2.4%
Grand Total	931,817	461,642	974,407	994,984	20,577	2.1%
Funds:						
10 - General	931,817	461,642	974,407	994,984	20,577	2.1%
Grand Total	931,817	461,642	974,407	994,984	20,577	2.1%
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:

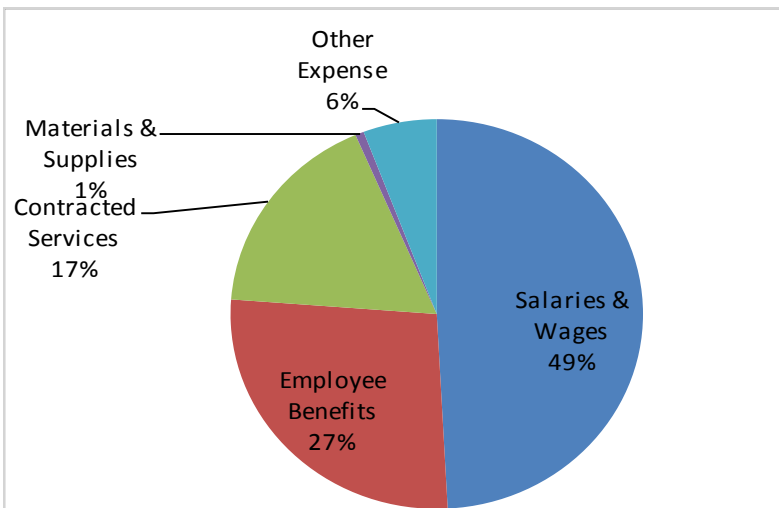
	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$387,583	\$203,976	\$405,471	\$417,655	\$12,184	3.0%
Employee Benefits	200,264	111,094	221,338	229,243	7,905	3.6%
Contracted Services	222,314	148,862	218,310	223,910	5,600	2.6%
Deferred Cost W/O	10,086	5,043	10,086	-	(10,086)	-100.0%
Materials & Supplies	4,740	1,956	5,325	4,925	(400)	-7.5%
Other Expense	14,548	7,644	18,345	16,060	(2,285)	-12.5%
Transportation	150	107	400	250	(150)	-37.5%
Grand Total	839,685	478,682	879,275	892,043	12,768	1.5%
Programs:						
77 - Billing	165,360	84,178	166,516	172,750	6,234	3.7%
98 - Training	28,908	10,469	32,191	30,212	(1,979)	-6.1%
99 - Administration	645,417	384,035	680,568	689,081	8,513	1.3%
Grand Total	839,685	478,682	879,275	892,043	12,768	1.5%
Funds:						
10 - General	775,665	442,545	803,659	815,622	11,963	1.5%
20 - Water General	64,020	36,137	75,616	76,421	805	1.1%
Grand Total	839,685	478,682	879,275	892,043	12,768	1.5%
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:

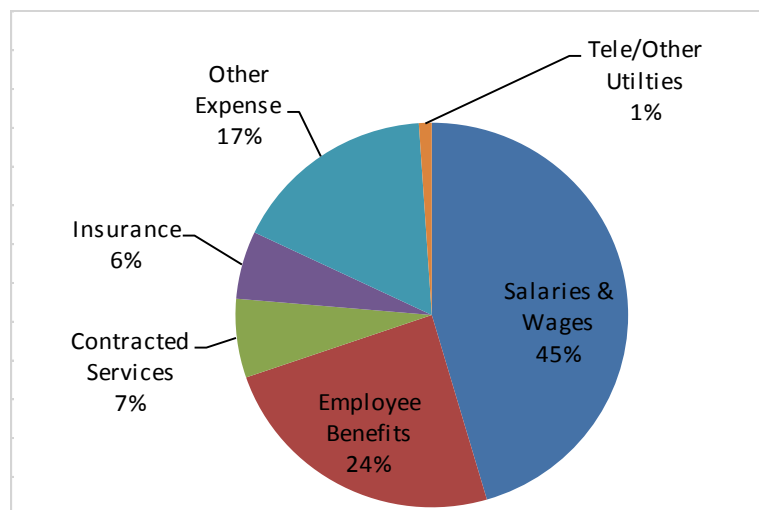
	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$208,976	\$106,760	\$210,847	\$218,076	\$7,229	3.4%
Employee Benefits	110,172	59,556	115,345	119,961	4,616	4.0%
Contracted Services	95,976	66,074	78,600	77,000	(1,600)	-2.0%
Materials & Supplies	1,180	778	3,000	3,000	-	0.0%
Other Expense	15,114	8,388	18,053	22,950	4,897	27.1%
Tele/Other Utilities	1,479	833	1,380	2,160	780	56.5%
Transportation	232	142	500	500	-	0.0%
Grand Total	433,129	242,531	427,725	443,647	15,922	3.7%
Programs:						
98 - Training	21,924	13,512	16,068	16,025	(43)	-0.3%
99 - Administration	411,205	229,019	411,657	427,622	15,965	3.9%
Grand Total	433,129	242,531	427,725	443,647	15,922	3.7%
Funds:						
10 - General	433,129	242,531	427,725	443,647	15,922	3.7%
Grand Total	433,129	242,531	427,725	443,647	15,922	3.7%
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:

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$609,374	\$318,588	\$691,033	\$825,504	\$134,471	19.5%
Employee Benefits	311,899	165,717	368,774	443,222	74,448	20.2%
Contracted Services	127,456	37,626	100,570	95,020	(5,550)	-5.5%
Insurance	78,497	45,889	86,804	88,353	1,549	1.8%
Materials & Supplies	1,442	2,730	5,738	5,738	-	0.0%
Other Expense	187,706	103,288	256,537	231,337	(25,200)	-9.8%
Tele/Other Utilities	16,971	6,990	16,032	14,100	(1,932)	-12.1%
Transportation	2,309	525	3,200	2,560	(640)	-20.0%
Grand Total	1,335,654	681,353	1,528,688	1,705,834	177,146	11.6%
Programs:						
5 - Public Relations	183,134	95,418	172,998	181,253	8,255	4.8%
98 - Training	40,208	16,262	67,479	73,508	6,029	8.9%
99 - Administration	1,112,312	569,673	1,288,211	1,451,073	162,862	12.6%
Grand Total	1,335,654	681,353	1,528,688	1,705,834	177,146	11.6%
Funds:						
10 - General	1,291,196	655,606	1,452,188	1,660,334	208,146	14.3%
20 - Water General	44,458	25,747	76,500	45,500	(31,000)	-40.5%
Grand Total	1,335,654	681,353	1,528,688	1,705,834	177,146	11.6%
Headcount:						
Full-Time	6	7	7	8	1	14.3%
Part-Time	1	1	1	1	0	0.0%
Total	7	8	8	9	1	11.1%

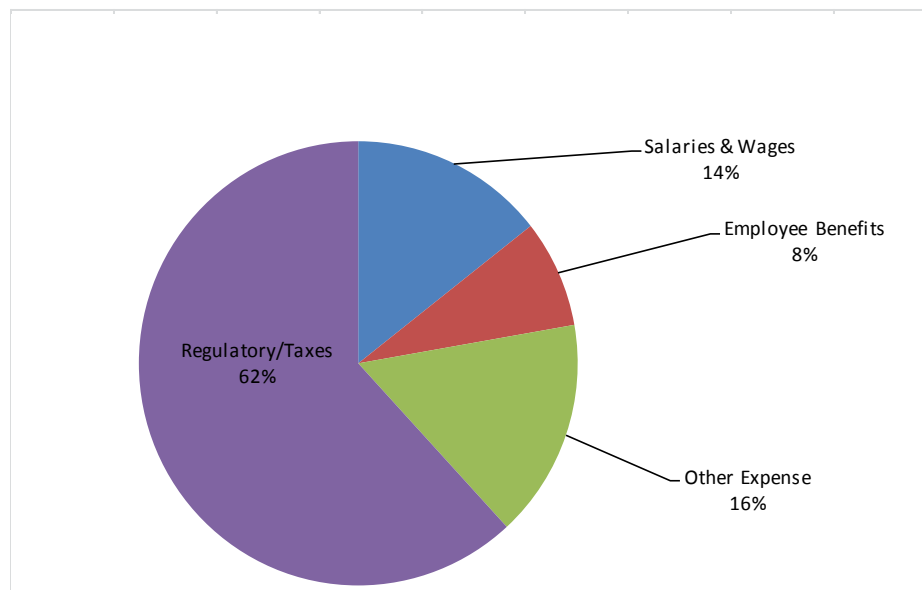


Non-Departmental

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.

	2015 Actual	2016 Jan- Jun	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Expense Type:						
Salaries & Wages	\$0	\$0	\$50,000	\$0	(\$50,000)	-100.0%
Employee Benefits	-	-	27,245	-	(27,245)	-100.0%
Materials & Supplies	69,642	-	-	-	-	n/a
Other Expense	315,988	75,644	55,400	55,400	-	0.0%
Regulatory/Taxes	202,669	180,995	214,896	218,015	3,119	1.5%
Grand Total	588,299	256,639	347,541	273,415	(74,126)	-21.3%

The District pays real estate taxes (670821) and personal property taxes (670822) to the Town of Standish for land and other property in the town. Annual assessments are also paid by the District to the Maine Public Utility Commission (PUC) and the Maine Drinking Water Program. The PUC assessment has two components – general assessment and public advocacy. The PUC general assessment is based on the utilities size and the amount of time the Commission spends in each industry sector. Because of the PUC efforts to update the Consumer Protection rule (Chapter 660), the assessment is projected to increase. The assessment from the Drinking Water Program is based on population.



Introduction

Total salaries, wages and benefits budget for 2017 is \$16,519,990. This is 2.7 % higher than the 2016 budget.

Total Labor & Benefits (O&M and Capital):

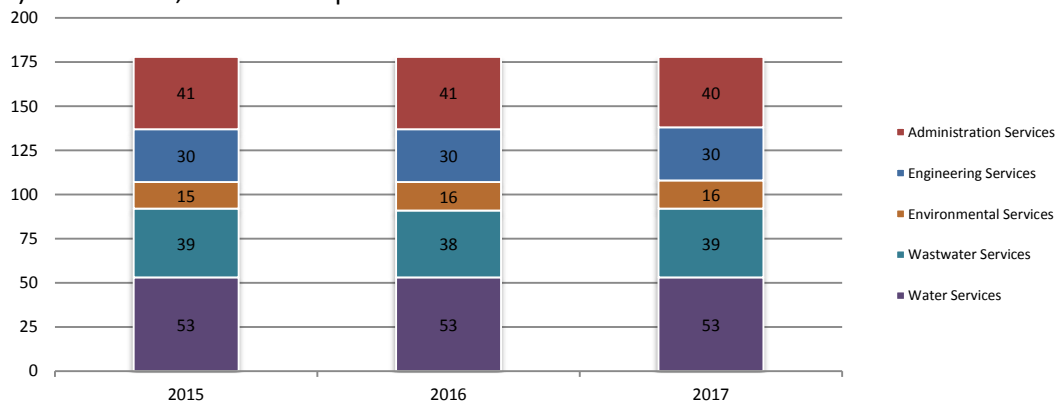
	2015 Actual	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages	\$10,044,279	\$10,695,807	\$10,943,145	\$247,338	2.3%
Employee Benefits	<u>4,736,871</u>	<u>5,397,245</u>	<u>5,576,845</u>	<u>\$179,600</u>	<u>3.3%</u>
Actual	14,781,150	16,093,052	16,519,990	426,938	2.7%

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 \$465,100 in labor/benefits to capital projects in 2017; which is \$24,277 (5.0%) lower than the 2016 budget.

	2015 Actual	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Operations & Maintenance	\$14,477,841	\$15,603,675	16,054,890	\$451,215	2.9%
Capital	<u>303,309</u>	<u>489,377</u>	<u>465,100</u>	<u>(24,277)</u>	<u>-5.0%</u>
	14,781,150	16,093,052	16,519,990	426,938	2.7%

Total Employee Headcount:

Authorized headcount remains at 178; this is the same as in the previous three budgets (2014, 2015 & 2016). In addition, there was a position shift between Wastewater and Administration Services.



Wastewater Services added a Wastewater Maintenance Operator. The Program Manager position moved within Administration Services.

Salary Costs

The Budget assumes total labor costs will increase by 2.3% (\$247,338).

Total Labor (O&M and Capital) by Type:

	2015 Actual	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$9,099,819	\$9,790,230	\$10,060,207	\$269,977	2.8%
Overtime	513,382	456,102	473,964	17,862	3.9%
Doubletime	51,217	51,703	48,333	-3,370	-6.5%
Standby	136,065	124,928	127,655	2,727	2.2%
Premium Time/Standby	700,664	632,733	649,952	17,219	2.7%
Trustee Compensation	23,100	27,000	27,000	0	0.0%
District Employed Temps	214,213	157,724	157,820	96	0.1%
Agency Temps	6,483	88,120	48,166	-39,954	-45.3%
Temporary Employees	220,696	245,844	205,986	-39,858	-16.2%
Total Labor Cost	10,044,279	10,695,807	10,943,145	247,338	2.3%

Total Labor broken out by O&M and Capital:

	2015 Actual	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Operating Expense	\$9,832,292	\$10,361,351	\$10,625,197	\$263,846	2.5%
Capital Expenditures	211,987	334,456	317,948	-16,508	-4.9%
	10,044,279	10,695,807	10,943,145	247,338	2.3%
Operating Expense	97.9%	96.9%	97.1%		
Capital Expenditures	2.1%	3.1%	2.9%		
	100.0%	100.0%	100.0%		

Labor Hours/Average Pay Rates

Budgeted hours for the 2017 Budget were down by 875 hours or .2%. Regular time increased 934 hours because one position which had been at part time went back to full time.

Total Labor (O&M and Capital) Hours by Type:

	2015 Actual	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	349,521	367,746	368,680	934	0.3%
Overtime	14,942	13,018	13,227	208	1.6%
Doubletime	1,104	1,084	989	(96)	-8.8%
Standby	5,567	5,423	5,404	(19)	-0.3%
Premium Time/Standby	21,612	19,525	19,619	94	0.5%
District Employed Temps	14,547	12,369	12,585	217	1.8%
Agency Temps	324	4,690	2,570	(2,120)	-45.2%
Temporary Employees	14,871	17,059	15,155	(1,903)	-11.2%
	386,003	404,330	403,455	(875)	-0.2%

Labor Rates by Type:

On average pay rates were increased 2.5%. Changes to overtime, double-time and standby varied due to shifts in personnel budgeted to cover those hours. Temp rates were kept relatively flat. Please note that the rates for Agency Temps are higher because the agencies must cover costs such as FICA and workers comp.

	2015 Actual	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$26.04	\$26.62	\$27.29	\$0.66	2.5%
Overtime	34.36	35.04	35.83	0.80	2.3%
Doubletime	46.39	47.70	48.87	1.17	2.5%
Standby	24.44	23.04	23.62	0.59	2.5%
Premium Time/Standby	32.42	32.41	33.13	0.72	2.2%
District Employed Temps	14.73	12.75	12.54	(0.21)	-1.7%
Agency Temps	20.01	18.79	18.74	(0.05)	-0.3%
Temporary Employees	14.84	14.41	13.59	(0.82)	-5.7%
	25.96	26.39	27.06	0.67	2.5%

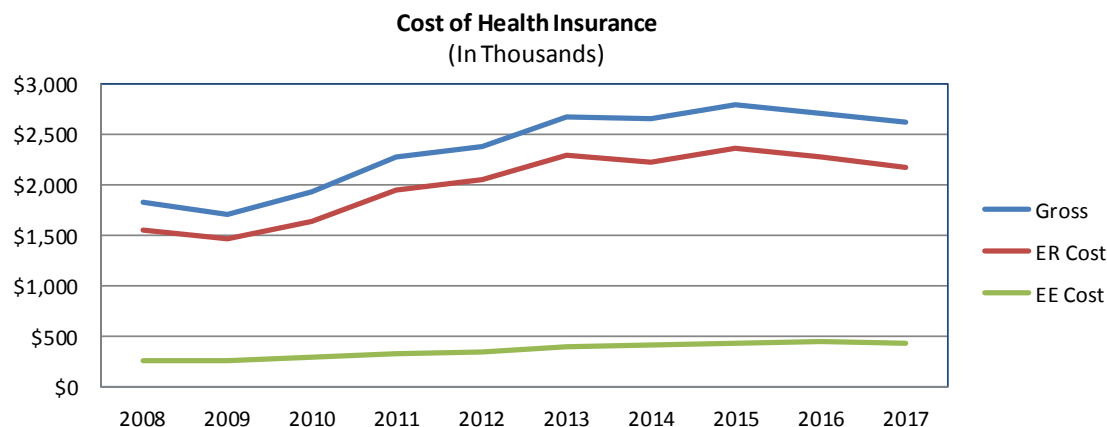
Employee Benefits

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 2017, the benefits percentage increased from 46.84% to 47.15%. Pension costs rose 29.9% while health insurance budgeted expense decreased 3.7%.

Health Insurance

Claims experience for the health plan continues to run well resulting in a favorable renewal rate for the health plan; a 1% reduction for calendar year 2017. The 2017 Budget for Health Insurance is \$2,179,081. This is a reduction of \$93,219 (4.1%) from the prior year's budget.

The 2016 Budget assumed the District would pay 94% of an employee's health insurance premiums and 70% of the premiums for dependents. The 2017 Budget assumes a reduction in the employee coverage to 93% while keeping the dependent percentage the same. The result is a decrease in total employee contributions of \$3,198 (-0.7%) to \$436,430.



The District makes health insurance coverage available to regular employees who work over 24 hours per week. The medical cost for part-time employees is pro-rated based on hours worked. The District increased the amount to \$30/week to any employee who is insured outside the District. The Budget assumed five positions will be vacant or will be employees not yet eligible for coverage:

Year	Insured	Non-Insured	Total
2016	166	7	173
<u>2017</u>	<u>163</u>	<u>10</u>	<u>173</u>
Change	-3	3	0

Employee Benefits (continued)

Pension

Pension related expenses are \$2,006,014 in the 2017 Budget. The District offers employees a defined benefit plan and a deferred compensation plan.

The defined benefit plan's contributions in the 2017 Budget increased \$391,514 (32.9%) to \$1,583,014. 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, 2016. The plan is solely funded by the District without any employee contribution.

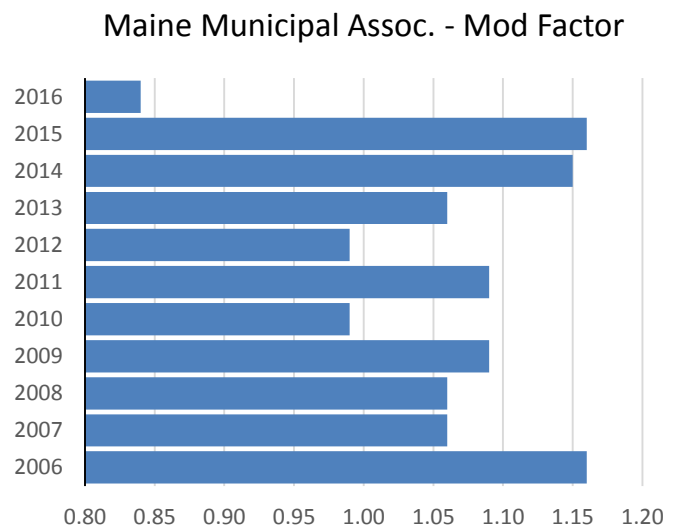
In addition, the deferred compensation plan for Union employees hired prior to 2011, and Non-Union employees hired prior to 2012, will fully match employee contributions up to \$1,225 annually. This cost has been budgeted at \$130,000 for 2017.

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 \$165,000 for 2017.

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 2016, the "Mod" factor of 1.16 was lowered to 0.84, the lowest it has been over our 10-year average of 1.08. This is the direct result of older claims dropping off the experience rating, active claims management, increased baseline examination for injuries and accident investigations, resulting in premium reductions of over \$60,000 annually.

The 2017 Budget is \$247,000.



Other Benefits

Other benefits which include dental, uniforms, unemployment, long-term disability and life insurance total \$288,192.

Employee Benefits (continued)

	2015 Actual	2016 Budget	2017 Budget	Budget Diff \$	Budget Diff %
Health Insurance:					
6604041 - HEALTH INSURANCE-EMPLOYEE	\$2,178,297	\$2,272,300	\$2,179,081	(\$93,219)	-4.1%
6604043 - MEDICAL INSURANCE PAYOUT	8,980	7,280	15,600	8,320	114.3%
	2,187,277	2,279,580	2,194,681	(84,899)	-3.7%
Pension Expenses:					
6604061 - PENSION EXPENSES	112,477	118,000	118,000	-	0.0%
6604062 - PENSION CONTRIBUTION	998,309	1,191,500	1,583,014	391,514	32.9%
6604063 - DEF COMP MANDATORY	94,812	100,000	165,000	65,000	65.0%
6604064 - DEF COMP ELECTIVE	141,179	125,000	130,000	5,000	4.0%
6604065 - PENSION LEGAL EXPENSE	10,214	10,000	10,000	-	0.0%
	1,356,992	1,544,500	2,006,014	461,514	29.9%
Workers Compensation:					
660409 - WORKERS' COMPENSATION	248,444	267,153	247,000	(20,153)	-7.5%
6604091 - WORKES COMP DEDUCTABLE	6,049	9,000	7,500	(1,500)	-16.7%
	254,493	276,153	254,500	(21,653)	-7.8%
Other Benefits:					
66025 - BENEFITS CONTINGENCY	-	150,000	20,000	(130,000)	-86.7%
660402 - LONG-TERM DISABILITY	26,089	26,500	27,000	500	1.9%
660403 - LIFE INSURANCE	21,745	23,500	20,000	(3,500)	-14.9%
660407 - EDUCATION SUBSIDY	3,632	11,000	11,000	-	0.0%
660408 - PROGRAMS ADMINISTRATION	7,002	7,100	7,100	-	0.0%
660410 - UNEMPLOYMENT COMPENSATION	(351)	25,000	15,000	(10,000)	-40.0%
660413 - PWD TRAINING PROGRAM	28	17,800	17,800	-	0.0%
6604151 - FIELD UNIFORMS	31,796	47,179	33,000	(14,179)	-30.1%
6604152 - OFFICE CLOTHING	5,718	7,200	7,200	-	0.0%
660416 - DENTAL COVERAGE	48,499	54,180	50,000	(4,180)	-7.7%
660417 - WELLNESS PROGRAM	2,305	2,500	2,500	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	25,243	34,750	24,750	(10,000)	-28.8%
660420 - WORKFORCE PLANNING	-	1,000	1,000	-	0.0%
660421 - POST RETIREMENT BENEFITS	24,017	29,700	24,057	(5,643)	-19.0%
660422 - ACTUARY NON-PENSION	2,500	7,000	7,000	-	0.0%
663592 - RECRUITING SERVICES	-	40,000	20,000	(20,000)	-50.0%
66595 - INDENTITY FRAUD INSURANCE	1,067	1,067	1,067	-	0.0%
667599 - OTHER MISCELLANEOUS	32	43	(282)	(325)	-755.8%
	199,321	485,519	288,192	(197,327)	-40.6%
Total Employee Benefits	3,998,084	4,585,752	4,743,387	157,635	3.4%
660401 - FICA - Employers' Share	738,787	811,493	833,458	21,965	2.7%
Total Costs	4,736,871	5,397,245	5,576,845	179,600	3.3%
Total Regular Labor (Benefits Basis)	9,000,429	9,790,230	10,060,207	269,977	2.8%
Benefit Rate	44.42%	46.84%	47.15%	0.31%	0.7%

Note: The total employee benefits expense above (\$5,576,845) does not include \$63,097 in employee benefits charged directly to departments. With these costs the District's benefits cost is \$5,639,942.

Employee Benefits (continued)

Authorized Headcount

The overall headcount is unchanged at 178 between 2016 and 2017; however, several changes are between and within sub-departments as outline below:

	<u>Added</u>		<u>Eliminated</u>	<u>Notes</u>
B3	Wastewater Maintenance Operator	A0	Workforce Management	
J1	Project Manager - Admin	F1	Customer Service Program Manager	Transferred position to J1

	2015	2016	2017	15 to 17	16 to 17
<u>Water Services</u>					
A1 - Water Administration	5.00	5.00	5.00	0.00	0.00
A2 - Transmission/Distribution	22.00	22.00	22.00	0.00	0.00
A3 - Water Treatment	11.00	11.00	11.00	0.00	0.00
A6 - Utility Services	<u>15.00</u>	<u>15.00</u>	<u>15.00</u>	<u>0.00</u>	<u>0.00</u>
	53.00	53.00	53.00	0.00	0.00
<u>Wastewater Services</u>					
B1 - Wastewater Administration	1.00	1.00	1.00	0.00	0.00
B3 - All WWTFs	25.00	24.00	25.00	0.00	1.00
L9 - Water / WW Systems	<u>13.00</u>	<u>13.00</u>	<u>13.00</u>	<u>0.00</u>	<u>0.00</u>
	39.00	38.00	39.00	0.00	1.00
<u>Environmental Services</u>					
A5 - Environmental Services	8.00	9.00	9.00	1.00	0.00
L6 - Water / WW Laboratory	<u>7.00</u>	<u>7.00</u>	<u>7.00</u>	<u>0.00</u>	<u>0.00</u>
	15.00	16.00	16.00	1.00	0.00
<u>Engineering Services</u>					
C1 - Facility Services Administration	10.00	10.00	10.00	0.00	0.00
E2 - Planning & Design	17.00	16.00	16.00	-1.00	0.00
E7 - Instrumentation	<u>3.00</u>	<u>4.00</u>	<u>4.00</u>	<u>1.00</u>	<u>0.00</u>
	30.00	30.00	30.00	0.00	0.00
<u>Administrative Services</u>					
F1 - Customer Service	14.00	14.00	13.00	-1.00	-1.00
G1 - Information Services	7.00	7.00	7.00	0.00	0.00
H1 - Financial Services	9.00	8.00	8.00	-1.00	0.00
I1 - Employee Services	3.00	3.00	3.00	0.00	0.00
J1 - Executive Office	7.00	8.00	9.00	2.00	1.00
Non-Departmental	<u>1.00</u>	<u>1.00</u>	<u>0.00</u>	<u>-1.00</u>	<u>-1.00</u>
	41.00	41.00	40.00	-1.00	-1.00
Total	178.00	178.00	178.00	0.00	0.00

Non-Union Positions

The overall Non-Union headcount decreased from 59 to 57.

The table below shows the requested Non-Union positions by pay range. The Job Class Code (JCC) is in parentheses:

<u>Range 1 (\$31,405 to \$47,169)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>	<u>Range 4 (\$64,061 to \$96,091)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>
Environmental Educator (5029)	1	0	-1	Director of Customer Ser (9006)	1	1	0
Executive Admin Asst (5010)	1	1	0	Director of Finance Serv (9008)	1	1	0
General Accounting Asst (5028)	<u>1</u>	<u>1</u>	<u>0</u>	Dist Sys Manager - Water (9014)	1	1	0
	3	2	-1	Eng/Asset Mgmt Srv Mngr (9031)	1	1	0
				Environmental Srv Manager (9020)	1	1	0
<u>Range 2 (\$45,793 to \$68,690)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>	Information Srvs Manager (9010)	1	1	0
Asset Analyst (9043)	1	1	0	Senior Project Engineer (9045)	3	3	0
BSA - GIS (5022)	1	1	0	Project Manager - Admin (9047)	<u>0</u>	<u>1</u>	<u>1</u>
Business Systems Analyst (9501)	1	1	0		9	10	1
Chief of Security Oper (1069)	1	1	0				
Cust Serv Supervisor (5030)	1	1	0	<u>Range 5 (\$71,818 to \$107,821)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>
Cust Srv Program Manager (9502)	1	0	-1	Director of Opr Srvs (9011)	2	2	0
Design Engineer (5023)	1	1	0	Exec Director of EE Srvs (9007)	<u>1</u>	<u>1</u>	<u>0</u>
Environmental Educ Coord (5017)	1	1	0		3	3	0
ES Conslt Safety/Training (5004)	1	1	0				
ES Consultant Employment (5003)	1	1	0	<u>Range 6 (\$80,827 to \$121,113)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>
Financial Analyst (5020)	2	2	0	Corporate Counsel (9035)	1	1	0
Network Admin I (9503)	1	1	0	Exec Director of Admin (9004)	1	1	0
Network Admin II (9044)	1	1	0	Exec Director of AMAP (9005)	<u>1</u>	<u>1</u>	<u>0</u>
Purchasing Agent/Buyer (5005)	1	1	0		3	3	0
Right of Way Agent (5014)	1	1	0				
Scheduler/Coord AMAP (5032)	1	1	0	<u>Range 7 (\$97,342 to \$145,888)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>
Scheduler/Coordinator Ops (5033)	1	1	0	General Manager (9018)	1	1	0
Source Protection Coord (5018)	<u>1</u>	<u>1</u>	<u>0</u>				
	19	18	-1	Workforce Management	<u>2016</u>	<u>2017</u>	<u>Change</u>
				Position (9600)	3	2	-1
<u>Range 3 (\$53,425 to \$80,201)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>				
Admin Facility Chief Oper (5019)	1	1	0	Full Time Positions	58	56	-2
Database Administrator (9027)	1	1	0	Part Time Positions	<u>1</u>	<u>1</u>	<u>0</u>
Network Admin III (9026)	1	1	0	Total Non-Union Positions:	59	57	-2
Project Engineer (9030)	3	3	0				
Public Relations Manager (PT) (9025)	1	1	0				
Regulatory Security Advsr (9028)	1	1	0				
SCADA Specialist (5034)	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>3</u>	<u>3</u>	<u>0</u>				
	18	18	0				

A Workforce Management position is being used to fill a union position in the Wastewater Department. The Environmental Educator position was reclassified as a union position. The Customer Service Program Manager was transferred to the Project Manager –Admin position.

Union Positions

For the 2017 Budget, the Union headcount went up 2 to 121. The number of part-time positions was unchanged at one. The current Union Contract was ratified in March 2016, retro to November 2015; the rates shown (probationary and regular) will be paid through October 2016.

<u>Paygrade - D (\$17.17/\$18.06)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>	<u>Paygrade - I (\$22.96/\$24.14)</u>	<u>2016</u>	<u>2017</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
<u>Paygrade - E (\$18.16/\$19.12)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>	WW System Maint/Operator (1082)	<u>2</u>	<u>2</u>	<u>0</u>
Admin Dept Asst Finance (1027)	3	3	0		29	29	0
Administrative Asst Ops (1089)	1	1	0				
Environmental Educator (5029)	0	1	1	<u>Paygrade - J (\$24.34/\$25.63)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>
Administrative Asst WW (1083)	<u>1</u>	<u>1</u>	<u>0</u>	Environmental Scientist (1022)	4	4	0
	5	6	1	Facility Maint Foreperson (1565)	1	1	0
				Tech Maint Pers Mech/Elec (1073)	5	5	0
<u>Paygrade - F (\$19.27/\$20.26)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>	Tech Maint Person SLWTF (1070)	1	1	0
Construction Technician (1004)	1	1	0	Water Resource Specialist (1021)	<u>4</u>	<u>4</u>	<u>0</u>
Cust Serv Coord Ctrl Ctr (1008)	3	3	0	(1 of 4 is part-time)	15	15	0
Equip Operator II (1024)	1	1	0				
Equip Operator II WW (1025)	1	0	-1	<u>Paygrade - K (\$25.79/\$27.11)</u>	<u>2016</u>	<u>2017</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	Garage Foreperson (1528)	1	1	0
Technical Admin Asst (1522)	1	1	0	Lead Env Scien-Foreperson (1573)	1	1	0
Wastewater Operator (1006)	4	4	0	Operations Foreman, Sys (1090)	1	1	0
Water System Operator (1005)	<u>9</u>	<u>10</u>	<u>1</u>	Operations Foreperson (1053)	3	3	0
	24	24	0	Ops Foreman, WW System (1093)	<u>1</u>	<u>1</u>	<u>0</u>
					12	12	0
<u>Paygrade - G (\$20.43/\$21.48)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>	<u>Paygrade - L (\$27.37/\$28.78)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>
Collections Coordinator (1028)	1	1	0	Inst Maint Foreperson (1537)	1	1	0
Cust Serv Coordinator (1017)	3	3	0	Tech Maint Foreperson (1569)	<u>2</u>	<u>2</u>	<u>0</u>
Engineering Tech II (1019)	1	1	0		3	3	0
Equip Operator I (1023)	4	4	0				
Garage Mechanic I (1029)	1	0	-1				
Fleet Maintenance Tech (1058)	0	1	1				
Millwright I (1049)	1	1	0	Full Time Positions	119	121	2
WW Maintenance Operator (1059)	0	11	11	<u>Part Time Positions</u>	<u>1</u>	<u>1</u>	<u>0</u>
WW Plant Maint/Operator (1075)	7	0	-7	Total Union Positions	119	121	2
WW Systems Operator (1077)	<u>3</u>	<u>0</u>	<u>-3</u>				
	21	22	1				
<u>Paygrade - H (\$21.68/\$22.79)</u>	<u>2016</u>	<u>2017</u>	<u>Change</u>				
Asset Mgmt Technician (1575)	3	3	0				
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>				
	8	8	0				

A new Wastewater Maintenance Operator position was created by merging the responsibilities of the plant and system operators position. To address an upcoming retirement, one workforce management was also added.

Temporary & Non-Benefit Employees

Temporary and non-benefit employees supplement regular employees particularly during the busy times of year. These positions are not benefits eligible, but the hours for benefits 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	2014	2015	2016	Change '14 to 16
A1 - Water Administration	0.0	0.0	0.0	0.0
A2 - Transmission/Distribution	2.5	2.3	2.3	-0.2
A3 - Water Treatment	0.0	0.0	0.0	0.0
A6 - Utility Services	<u>1.3</u>	<u>1.3</u>	<u>1.3</u>	<u>0.0</u>
	3.8	3.6	3.6	-0.2
<u>Wastewater Operations</u>				
B1 - Wastewater Administration	0.0	0.0	0.0	0.0
B3 - Portland/Cape/Peaks WWTP's	0.2	0.2	0.2	0.0
B4 - Westbrook/Gorham/Windham WWTP	0.0	0.0	0.0	0.0
L9 - Water / WW Systems	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.0</u>
	0.3	0.3	0.3	0.0
<u>Environmental Services</u>				
A5 - Environmental Services	3.1	3.0	2.0	-1.1
L6 - Water / WW Laboratory	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.0</u>
	3.6	3.5	2.5	-1.1
<u>Engineering Services</u>				
C1 - Facility Services Administration	0.5	0.5	0.5	0.0
E2 - Planning & Design	1.0	1.0	1.0	0.0
E3 - New Mains & Construction	0.0	0.0	0.0	0.0
E7 - Instrumentation	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	1.5	1.5	1.5	0.0
<u>Administration Department</u>				
F1 - Customer Service	0.0	0.2	0.2	0.2
G1 - Information Services	0.2	0.2	0.2	-0.1
H1 - Financial Services	0.0	0.0	0.0	0.0
I1 - Employee Services	0.0	0.0	0.0	0.0
J1 - Executive Office	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	0.2	0.4	0.4	0.2
	9.4	9.2	8.3	-1.1

The reduction in Environmental Services is the result of eliminating two temporary school educators and replacing with one full-time union Environmental Educator.

Temporary & Non-Benefit Employees (continued)

Temporary Positions Detail:

District Paid (Account 660131):

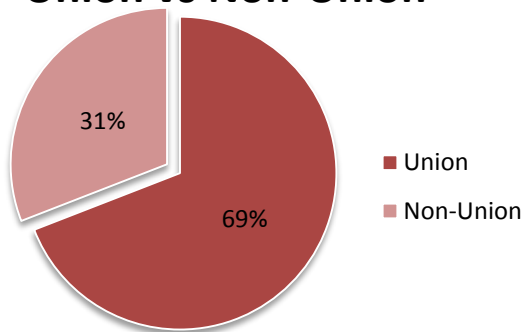
Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Water Operations Intern	1	40	15	600	0.29
	Construction Laborer	2	40	26	2,080	1.00
A5	Lake Security	6	10	20	1,200	0.58
	Lake Security	2	15	25	750	0.36
	Lake Security	1	10	46	460	0.22
	Wtr Resource Outreach Specialist	1	40	15	655	0.31
A6	Construction Laborer	2	40	26	2,080	1.00
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
L6	Laboratory Assistant Part Time	1	20	52	1,040	0.50
L9	Wasterwater Operations Intern	1	40	5	200	0.10
		22			12,586	6.05

Agency Paid (Account 660136)

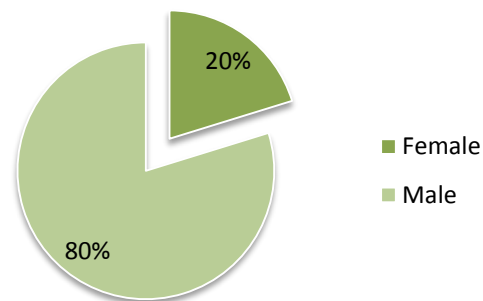
Org	Job Class	#EE	Hrs/Wk	# Wks	Hours	FTE's
A2	Temp Laborer	2	40	26	2,080	1.00
F1	Temp Clerical	1	40	11	440	0.21
I1	Temp Clerical	1	50	1	50	0.02
		4			2,570	1.24
Total District & Agency		26			15,156	7.29

Headcount Makeup – All Regular Employees

Union vs Non-Union



Gender



Work Force Management

By the end of 2017, 6 employees will reach age 65, the normal retirement age. That would bring the total of current employees, at or above 65, to 15.

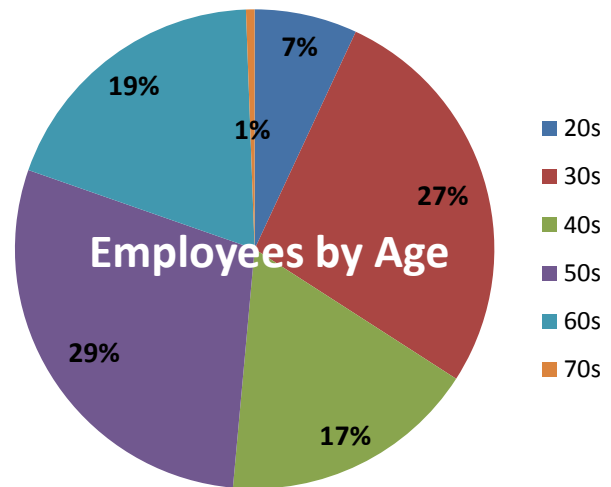
Management has been proactively managing the challenges of baby boomer retirements and the development of promoted personnel and unseasoned new hires.

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.

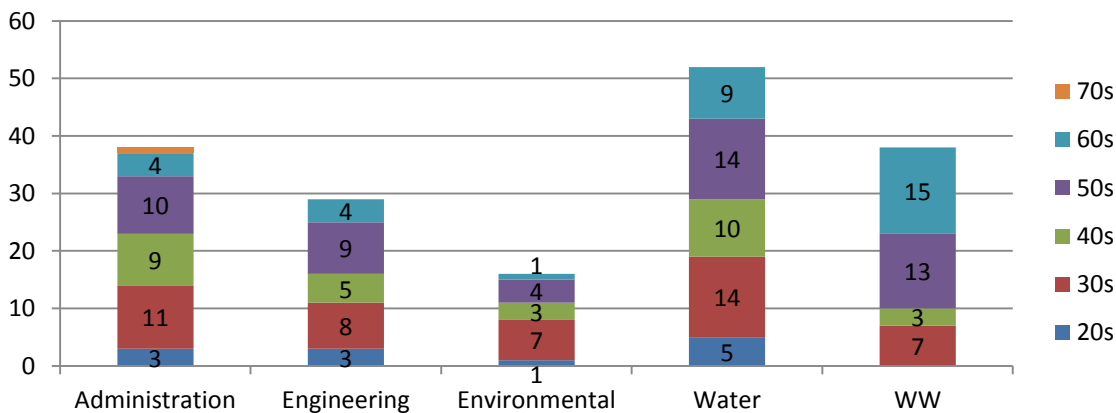
The Water Department's apprentice program has been satisfying its labor needs. It has served to launch capable Water System Operators into the more advanced Utility System and Water Treatment System Operator roles. The next challenge is preparing employees for the highest technical roles, and foreperson or supervisory roles.

Generally speaking, the Administration Department is well positioned with existing personnel.

In 2016 the Board of Trustees began its work to find a replacement for the retiring General Manager.



Age by Department



Average Length of Service

Administration	Engineering	Environmental	Water	Wastewater
10.0	16.2	11.6	17.2	19.1

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 next non-union market survey will be 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 all travel requests. The total costs may not exceed the District's total budget without the Board's authorization.

Department	2016 Budget	2017 Budget	Change
Water Services	\$3,000	\$0	-\$3,000
Wastewater Services	8,850	10,250	1,400
Environmental Services	3,500	7,600	4,100
Engineering Services	6,100	6,100	0
Administration	<u>27,500</u>	<u>28,000</u>	<u>500</u>
	\$48,950	\$51,950	\$3,000

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.

Water Services	\$250,623	\$227,269	-\$23,354
Wastewater Services	168,032	173,208	5,176
Environmental Services	48,344	74,259	25,915
Engineering Services	136,857	139,058	2,201
Administration	<u>214,408</u>	<u>212,947</u>	<u>-1,461</u>
	\$818,264	\$826,741	\$8,477

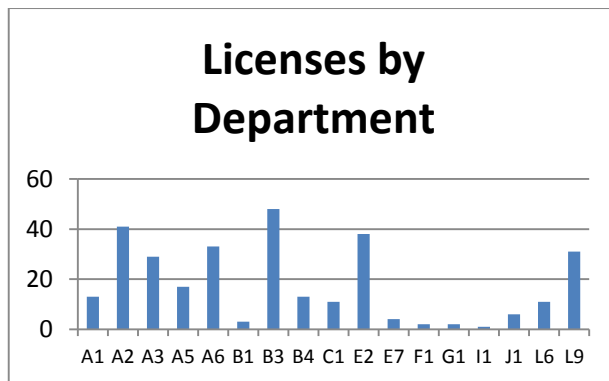
Operating Expense Budget	\$28,106,294	\$28,770,762
Percentage of O&M Budget	2.9%	2.9%

Work Force Management (continued)

Licenses

District employees are required to obtain certification as part of their job and are encouraged to obtain additional and higher level certification.

There are 136 employees who have received 303 licenses.



<u>Subgroup</u>	<u>Description</u>
A1	WATER ADMINISTRATION
A2	WATER OPERATIONS
A3	WATER TREATMENT
A5	ENVIRONMENTAL SERVICES
A6	WATER UTILITY SERVICES
B1	WASTEATER ADMINISTRATION
B3	PORT/CAPE/PEAKS WWTPS
B4	WESTBROOK.GORHAM WWTP
C1	FACILITIES SERVICES
E2	PLANNING & DESIGN
E7	INSTRUMENTATION
F1	CUSTOMER SERVICE
G1	INFORMATION SERVICES
H1	FINANCIAL SERVICES
I1	EMPLOYEE SERVICES
I3	EMPLOYEE BENEFITS
J1	BOT & SENIOR MANAGEMENT
L6	WATER/WW LABORATORY
L9	WATER/WW SYSTEMS

Licenses Held by PWD Employees

BACKFLOW	8
BLDING OPER CERT 1	3
CCST I	2
ELECTRICIAN HELPER	2
GEOLOGIST	1
JOURNEY ELECTRICIAN	4
LAB ANALYSIS CER I	3
LAB ANALYSIS CER II	3
LAW ENF OFFICER CERT	1
MAINE PROF ENGINEER	11
MASTER ELECTRICIAN	6
ME BAR MEMBER	1
ME EMER MED SER(EMS)	1
ME ENGIN INTERN CERT	1
NOTARY PUBLIC	1
PLUMBER INSPECT LIC	4
PROJECT MANAGE CERT	2
PROPANE/GAS TECH	2
VEHICLE INSPECTOR	1
WASTEWATER COLL I	4
WASTEWATER COLL II	30
WASTEWATER COLL III	2
WASTEWATER COLL IV	14
WASTEWATER TREAT I	2
WASTEWATER TREAT II	13
WASTEWATER TREAT III	8
WASTEWATER TREAT IV	1
WASTEWATER TREAT V	10
WATER DIST I	10
WATER DIST II	34
WATER DIST III	8
WATER DIST IV	38
WATER TREAT/SYS I	20
WATER TREAT/SYS II	26
WATER TREAT/SYS III	2
WATER TREAT/SYS IV	24
Grand Total	303

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.

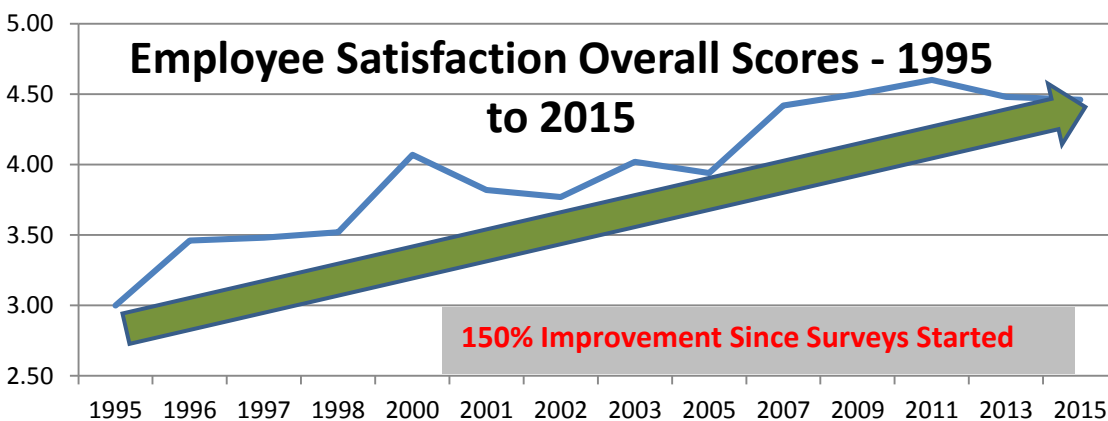
Management continues to utilize department monthly meetings to keep employees up to date re: Board activities and decisions, significant capital improvement projects, business challenges and changes, and updates of organizational practices and policies.

SharePoint will continue to evolve in 2017 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, the Affordable Care Act will likely impact PWD's medical plan design.

Employee Satisfaction Survey

A survey of employees on the work climate is conducted every other year. The survey results are reviewed with employees and areas to improve are identified. A survey was conducted in 2015 and two improvement areas were identified. They are: inconsistent application of policies, and value of the employee evaluation process. Managers and supervisors have been asked to include actions in their 2017 work plans to address these concern. A survey will be conducted in 2017.



Employee Recognition

General Manager's Award 2015 Inspire Awards

The 2015 General Manager's Award went to John McGilp, Water Treatment Plant Systems Operator. Each year, the general manager selects one employee from the previous years' Inspire award recipients to recognize with the General Manager Award.



Tad Berube
Technical Maintenance Mechanical/Electric

Heather Fields
Administration-Customer Service

Brianna Greene
Customer Service Coordinator

Brian Johnson
Asset Management Technician

Steve Libby
Distribution System Foreperson

John McGilp
Water Treatment Plant Systems Operator

Mark Oliver
Utility Specialist, Water Services

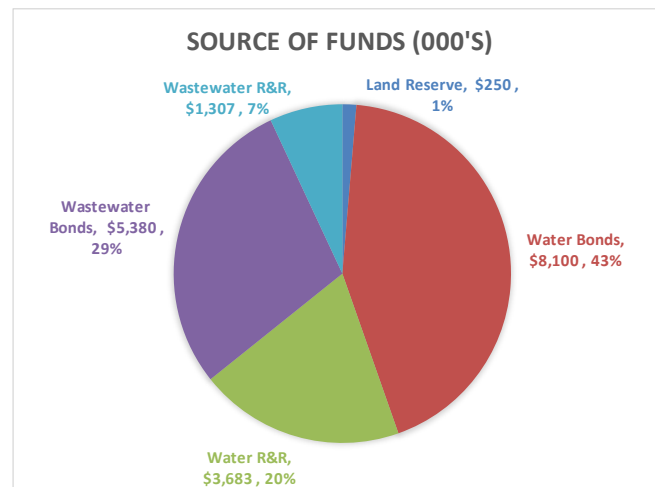
Kathryn Rodriguez
Technical Administrative Assistant

Tyler Semple
Network Administrator

Tim Walsh
Asset Analyst

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 2017 financing options (source of funds) are noted in the chart below. The funds will be used to fund \$12 million in water projects and \$6.5 million in wastewater projects.



Annual Fund Operating Budget

The annual budget includes the impact of issuing \$16.9 million of debt and \$5.08 million in contributions to the renewal and replacement funds. The proposed debt increases the share of debt service as a percent of budget for the Water (22% to 19%), Cape Elizabeth Wastewater (15% - same), Portland Wastewater (23% to 21%) and Westbrook Wastewater (18% - same). All the funds are below the Board target maximum. The projects financed have minimal impact to the operating budget. Most of the project 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.

	2016 Budget	2017 Budget	\$ Change
Debt Service Principal, Interest & Related Expense	\$7,098,926	\$7,989,734	\$890,808
Debt Service - Allocated	657,677	606,177	(51,500)
Debt Service - Funds	7,756,603	8,595,909	839,306
Annual Debt Service	7,756,603	8,595,909	839,306
Renewal & Replacement - Water - General	2,700,000	2,800,000	100,000
Renewal & Replacement - Wastewater	1,349,034	1,271,482	(77,552)
Renewal & Replacement - Multi-Fund Assets	590,000	590,000	-
Renewal & Replacement - Funds	4,639,034	4,661,482	22,448
Renewal and Replacement - Transportation	380,000	380,000	-
Annual Renewal and Replacement Contributions	5,019,034	5,041,482	22,448
Total Capital / Finance	12,775,637	13,637,391	861,754

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 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 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 2017 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 2017 budget assumes that 1% of the proposed 1.67% 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 2016. Moody's noted the District's recent deregulation from the Maine Public Utilities Commission as a reason for the upgrade. 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 as a challenge the weak legal security. 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 (June 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 strong city's 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 BOND RESOLUTION PROGRAM For municipalities, school districts, water districts, sewer districts and other local government 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 by the Clean Water Act of 1972, 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 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 process 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.

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

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Water	17%	17%	20%	22%	25%	26%	26%	26%
Wastewater								
Cape Elizabeth	14%	15%	15%	15%	18%	24%	25%	25%
Cumberland	2%	2%	2%	2%	2%	2%	3%	3%
Gorham	39%	38%	36%	35%	35%	34%	33%	33%
Portland	19%	18%	19%	21%	24%	24%	24%	23%
Westbrook	16%	15%	18%	18%	20%	23%	22%	22%
Windham	47%	44%	41%	41%	40%	39%	37%	37%

Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2014	2015	2016	2017	2018	2019	2020	2021
Water	1.84	1.93	1.68	1.69	1.48	1.40	1.37	1.38
Wastewater								
Cape Elizabeth	1.66	2.18	1.45	1.44	1.36	1.17	1.25	1.36
Cumberland	2.68	4.25	2.89	2.97	3.12	2.94	2.08	2.13
Gorham	1.37	1.53	1.24	1.17	1.18	1.21	1.21	1.16
Portland	1.63	1.64	1.40	1.33	1.28	1.26	1.25	1.27
Westbrook	2.24	2.43	1.71	1.86	1.68	1.51	1.60	1.61
Windham	1.40	1.29	1.18	1.15	1.16	1.17	1.19	1.16

Water & Wastewater Funds Debt Service

Long-Term Debt

The District has \$6,404,222 and \$1,925,265 of principal and interest payments in 2017. Of the total, \$5,975,472 and \$1,725,558 of principal and interest, respectively, are expensed to the individual funds. A portion of the debt service related to Meters is allocated directly to water and wastewater funds (principal of \$428,750 and interest of \$199,707). The Meter debt service relates to bonds issued for meters that are used for both water and wastewater purposes and is allocated based on relative benefit received by each fund.

Intra-Fund Note and Bond Anticipation Notes

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 2017 principal and interest expense accrued are \$13,240 and \$6,546 respectively.

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 2017 is estimated to be \$118,225.

In addition, the accounting rule change required governments expense any past issuance expenses they had on their balance sheets. This amount, \$164,421, was expensed to the various District funds in 2013. There was no impact to the 2017 Budget for this expense recognition.

Administrative Fees

Maine Municipal Bond Bank bonds issued under the Drinking Water State Revolving Fund (DWSRF) for Water and the State Revolving Fund (SRF) for Wastewater access an administrative fee of 5% of each year's principal and coupon interest payments. Maine Municipal Bond Bank Non-SRF bonds do not access any administrative fees. Water and Wastewater bonds issued as stand-alone bonds directly to the market also do not access administrative fees.

Water & Wastewater Funds Debt Service (continued)

Summary of Debt Service

Funds	Principal	Interest	Intra-Fund Note	Debt Issuance Expense	MMBB & DEP Admin Fees	Debt Service Total
Direct Charges:						
Water General Assests	\$2,340,494	992,170	\$0	\$70,225	\$37,661	\$3,440,550
Water Capital Reserve	585,000	183,202	-	20,000	-	788,202
Bond Premium/Deferred Outflow		(126,919)	-	-	-	(126,919)
Subtotal - Water	2,925,494	1,048,453	-	90,225	37,661	4,101,833
Wastewater:						
Cape Elizabeth	146,250	47,453	-	3,500	6,986	204,189
Cumberland	6,250	880	-	-	357	7,487
Falmouth	200,000	40,000	-	-	12,000	252,000
Gorham	303,069	70,143	-	924	15,367	389,503
Portland*	1,967,354	374,551	-	21,500	75,320	2,438,725
Westbrook	326,170	121,919	(13,240)	1,998	11,051	447,898
Windham	100,885	22,159	19,786	78	5,188	148,097
Subtotal - Wastewater	3,049,978	677,105	6,546	28,000	126,269	3,887,899
Total Direct Charges	5,975,472	1,725,558	6,546	118,225	163,930	7,989,732
Meters Allocated:						
Water	262,608	132,107	-	-	-	394,716
Bond Premium/Deferred Outflow		(22,280)	-	-	-	(22,280)
Water Total	262,608	109,827	-	-	-	372,436
Wastewater:						
Cape Elizabeth	10,798	4,265	-	-	-	15,063
Cumberland	4,784	1,924	-	-	-	6,708
Gorham	8,149	3,274	-	-	-	11,423
Portland	81,853	33,394	-	-	-	115,247
Westbrook	20,097	8,170	-	-	-	28,268
Windham	332	138	-	-	-	470
Subtotal - Wastewater	126,014	51,165	-	-	-	177,179
Contracted Services:						
Scarborough	4,331	1,811	-	-	-	6,142
South Portland	35,797	14,624	-	-	-	50,421
Total Meters Allocated	428,750	199,707	-	-	12,000	606,177
Debt Service - Funds	6,404,222	1,925,265	6,546	118,225	175,930	8,595,909
Debt Service (Total)	6,404,222	1,925,265	6,546	118,225	175,930	8,595,909

*Portland – The variance between the interest payment of \$374,551 shown above and \$389,657 show on the long-term debt pages is due to a bond premium of \$15,106.

Debt Service Summary

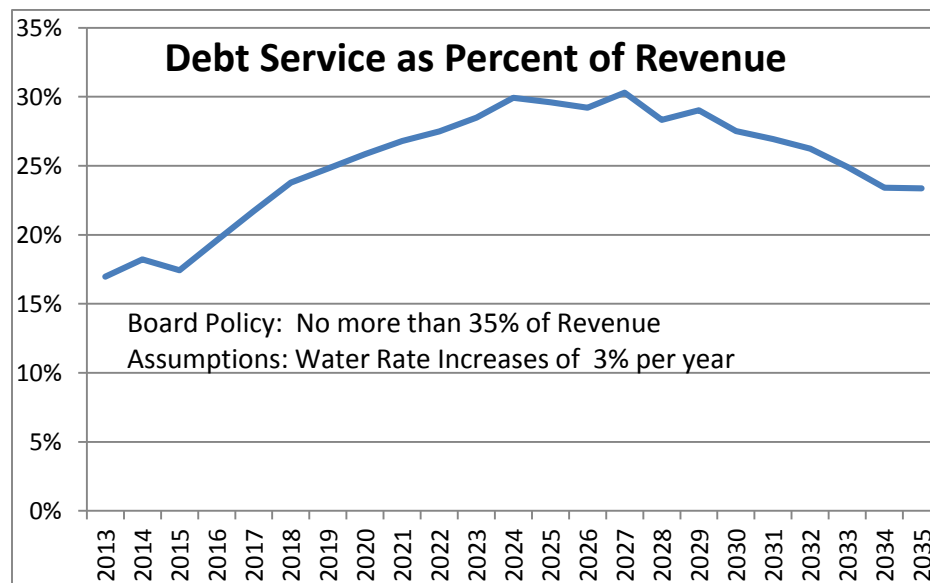
The debt service expense for each fund consists of two parts:

Fund Debt Service – These charges are related to assets belonging to the specific fund such as treatment plants, pump stations, mains, etc.

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.

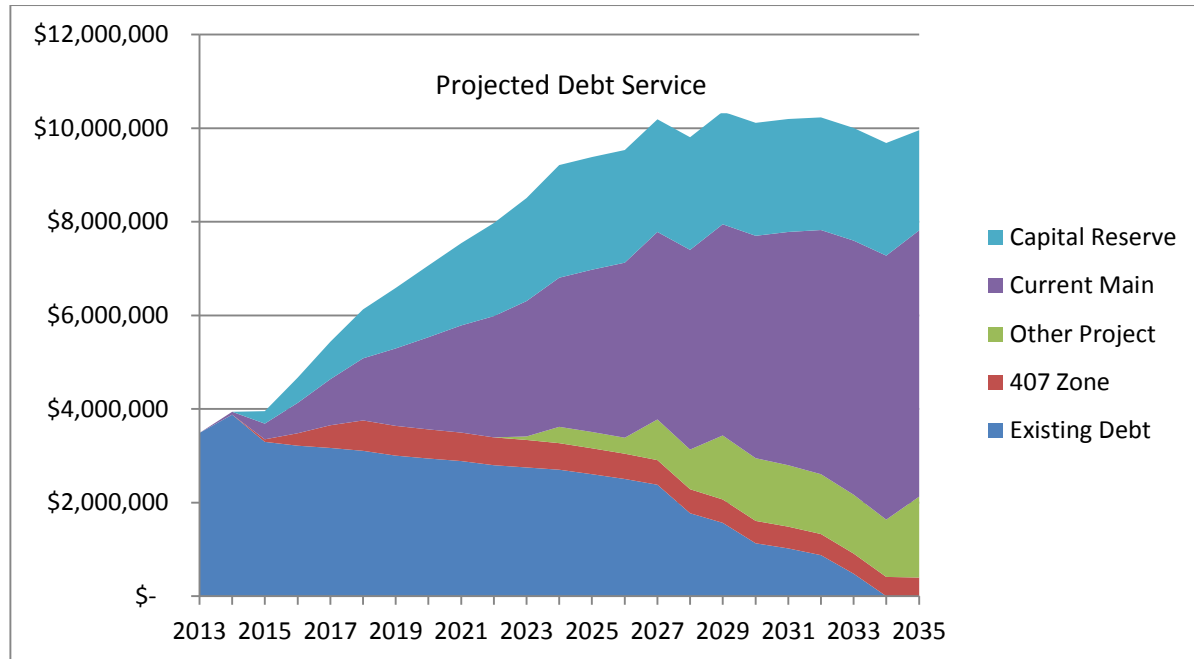
Together, these two are combined to become each fund's debt service expense.

	Fund	Meter	Total
Water	\$4,101,833	\$372,436	\$4,474,269
Wastewater:			
Cape Elizabeth	204,189	15,063	219,252
Cumberland	7,488	6,708	14,195
Falmouth	252,000	-	252,000
Gorham	389,504	11,423	400,926
Portland	2,438,725	115,247	2,553,972
Westbrook	447,898	28,268	476,166
Windham	148,097	470	148,566
Contracted Services:			
Scarborough	-	6,142	6,142
South Portland	-	50,421	50,421
	7,989,734	606,178	8,595,909



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 be funded through the capital reserve. Other major projects include the installation of new computer system and meter reading system.



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.

2016 bond issues may appear in the proposed section if the target issue date is after the publication date of 2017 budget.

<u>IssueDate</u>	<u>BondID</u>	<u>Purpose</u>	<u>Maturity</u>	<u>Range of Interest</u>	<u>Original Issue Principal</u>	<u>Yr End 2016 Balance</u>	<u>2017 Principal</u>	<u>Yr End 2017 Balance</u>	<u>2017 Interest Exp</u>	<u>MMBB/DEP Admin Fee</u>	<u>Issue Cost</u>	<u>PUC Docket#</u>
Existing Debt Water General LTD												
10/27/2005	WTR05-02	General Assets	2025	3.2500% - 5.0000%	\$900,000	\$405,000	\$45,000	\$360,000	\$15,443			2005-488
10/26/2006	WTR06-01	General Assets	2026	3.0000% - 5.0000%	\$1,500,000	\$750,000	\$75,000	\$675,000	\$23,374			2006-510
09/01/2007	WTR07-03	General Assets	2027	4.2500% - 4.2500%	\$6,125,000	\$316,250	\$316,250	\$0	\$11,251			2006-732 & 2007-333
10/30/2008	WTR08-01	General Assets	2028	2.0750% - 5.5750%	\$1,500,000	\$900,000	\$75,000	\$825,000	\$41,559			2008-360
04/01/2009	WTR09-01	General Assets (407 Zone)	2028	1.0500% - 1.0500%	\$1,598,500	\$959,100	\$79,925	\$879,175	\$9,931	\$4,500		2008-360 AMENDED
08/28/2009	WTR09-04	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$2,991,066	\$1,944,193	\$149,553	\$1,794,640	\$0	\$7,478		2009-128
08/28/2009	WTR09-05	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$163,953	\$106,569	\$8,198	\$98,372	\$0	\$410		2009-128
05/27/2010	WTR10-02	General Assets (RZEDB)	2030	4.0070% - 5.7460%	\$400,000	\$350,000	\$25,000	\$325,000	\$9,984			2010-62
11/01/2010	WTR10-03	General Assets (DWSRF)	2030	1.0000% - 1.0000%	\$902,500	\$631,750	\$45,125	\$586,625	\$6,242	\$2,572		2010-62
10/27/2011	WTR11-01	General Assets	2031	0.5000% - 5.5000%	\$2,300,000	\$1,725,000	\$115,000	\$1,610,000	\$50,222			2011-266
05/01/2012	WTR12-03	Ozone UV Design & Forest Ave (DWSRF)	2032	1.0000% - 1.0000%	\$1,130,000	\$904,000	\$56,500	\$847,500	\$8,663	\$3,263		2011-266
10/25/2012	WTR12-01	General Assets	2032	1.4800% - 3.7060%	\$2,000,000	\$1,600,000	\$100,000	\$1,500,000	\$44,162			2012-357
05/01/2013	WTR13-01	Ozone-UV Construction Phase 1 (DWSRF)	2032	1.0000% - 1.0000%	\$2,850,000	\$2,400,000	\$150,000	\$2,250,000	\$23,750	\$8,700		2011-266
05/23/2013	WTR13-04	General Assets	2033	1.1200% - 3.7000%	\$1,428,000	\$1,213,800	\$71,400	\$1,142,400	\$32,676			2013-00167
11/04/2013	WTR13-06	Ozone-UV Construction Phase 2	2034	2.0000% - 4.2500%	\$8,000,000	\$7,200,000	\$400,000	\$6,800,000	\$268,667			2011-266
11/15/2013	WTR13-05	General Assets (DWSRF)	2033	1.0700% - 1.0700%	\$1,072,000	\$911,200	\$53,600	\$857,600	\$9,654	\$3,168		2013-00167
06/30/2014	WTR14-01	General Assets	2034	3.0000% - 3.5000%	\$2,541,000	\$2,280,000	\$130,000	\$2,150,000	\$66,396			2014-00093
05/14/2015	WTR15-01	General Assets (DWSRF) Scott Dyer Rd	2034	0.1500% - 0.1500%	\$459,000	\$413,717	\$22,693	\$391,024	\$609	\$1,166		2014-38
06/25/2015	WTR15-04	General Assets - Water Main Renewal	2035	3.0000% - 3.2500%	\$3,230,000	\$3,065,000	\$165,000	\$2,900,000	\$93,125			2015-00051
06/25/2015	WTR15-05	General Assets - Ozone Destruct	2035	3.0000% - 3.2500%	\$500,000	\$475,000	\$25,000	\$450,000	\$14,438			2015-00051
12/04/2015	WTR15-06	Water Main Renewal - Gray Road	2035	1.0000% - 1.0000%	\$270,000	\$256,500	\$13,500	\$243,000	\$2,531	\$803		2015-00051
06/20/2016	WT16-04	General Assets - Water Main Renewal	2036	3.0000% - 4.0000%	\$385,000	\$385,000	\$20,000	\$365,000	\$13,100			
06/20/2016	WT16-06	407 Zone Design	2036	3.0000% - 4.0000%	\$183,000	\$1,830,000	\$95,000	\$1,735,000	\$62,625			
06/20/2016	WTR16-09	General Assets 2007 Refi	2027	3.0000% - 4.0000%	\$3,034,938	\$3,010,438	\$0	\$3,010,438	\$103,513			
Total Existing Debt Water General LTD						\$34,032,517	\$2,236,744	\$31,795,773	\$911,914	\$32,059		
Proposed Water General LTD												
09/01/2016	WT_Thornton/Westbrook	Renewal Thornton & Westbrook (DWSRF)	2036	1.0000% - 1.0000%	\$2,075,000	\$2,075,000	\$103,750	\$1,971,250	\$20,404	\$5,603		
04/01/2017	WT_Main St Gorham_1	Main Renewal - Main St Gorham (DWSRF)	2037	1.0000% - 1.0000%	\$1,313,600	\$0	\$0	\$1,313,600	\$9,852		\$10,225	
11/01/2017	WT_407 Zone PS_4	407 Zone PS and Tank Design	2037	5.0000% - 5.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$16,667		\$20,000	
11/01/2017	WT_MainRenewal2017_	Water Main Replacement 2017	2037	5.0000% - 5.0000%	\$4,000,000	\$0	\$0	\$4,000,000	\$33,333		\$40,000	
Total Proposed Debt Water General LTD						\$2,075,000	\$103,750	\$9,284,850	\$80,256	\$5,603	\$70,225	
Total Existing and Proposed Debt Water General LTD						\$36,107,517	\$2,340,494	\$41,080,623	\$992,170	\$37,661	\$70,225	
Existing Debt Water Capital Reser												
06/30/2014	WTR14-02	Water Assets - Capital Reserve	2024	3.0000% - 3.0000%	\$2,000,000	\$1,600,000	\$200,000	\$1,400,000	\$52,260			2014-00093
06/25/2015	WTR15-03	Water Assets - Capital Reserve	2025	3.0000% - 3.0000%	\$2,000,000	\$1,800,000	\$200,000	\$1,600,000	\$53,000			2015-00051
06/20/2016	WT16-05	Water Assets - Capital Reserve	2026	3.0000% - 4.0000%	\$1,830,000	\$1,830,000	\$185,000	\$1,645,000	\$61,275			
Total Existing Debt Water Capital Reserve						\$5,230,000	\$585,000	\$4,645,000	\$166,535			

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.

2016 bond issues may appear in the proposed section if the target issue date is after the publication date of 2017 budget.

<u>IssueDate</u>	<u>BondID</u>	<u>Purpose</u>	<u>Maturity</u>	<u>Range of Interest</u>	<u>Original Issue Principal</u>	<u>Yr End 2016 Balance</u>	<u>2017 Principal</u>	<u>Yr End 2017 Balance</u>	<u>2017 Interest Exp</u>	<u>MMBB/DEP Admin Fee</u>	<u>Issue Cost</u>	<u>PUC Docket#</u>
Proposed Water Capital Reserve												
11/01/2017	WT_GA2017 CR_1	Water General Assets - Capital Reserve	2027	5.0000% - 5.0000%	\$2,000,000	\$0	\$0	\$2,000,000	\$16,667		\$20,000	
Total Proposed Debt Water Capital Reserve						\$0	\$0	\$2,000,000	\$16,667	\$0	\$20,000	
Total Existing and Proposed Debt Water Capital Reserve						\$5,230,000	\$585,000	\$6,645,000	\$183,202	\$0	\$20,000	
Existing Debt Meters Allocated												
09/01/2007	WTR07-01	Meters	2027	4.2500% - 4.2500%	\$3,500,000	\$175,000	\$175,000	\$0	\$6,153			2006-403
09/01/2007	WTR07-02	Sub-meters	2027	4.2500% - 4.2500%	\$375,000	\$18,750	\$18,750	\$0	\$659			2006-403
05/28/2009	WTR09-02	Meters	2029	2.0800% - 5.5800%	\$4,519,800	\$2,937,870	\$225,990	\$2,711,880	\$122,523			2006-403
05/28/2009	WTR09-03	Sub-Meters	2029	0.0000% - 5.5800%	\$180,200	\$117,130	\$9,010	\$108,120	\$4,885			2006-403
06/20/2016	WTR16-07	Meters 2007 Refi	2027	3.0000% - 4.0000%	\$1,734,250	\$1,720,250	\$0	\$1,720,250	\$59,150			
06/20/2016	WTR16-08	Submeters 2007 Refi	2027	3.0000% - 4.0000%	\$185,813	\$184,313	\$0	\$184,313	\$6,338			
Total Existing Debt Meters Allocated						\$5,153,313	\$428,750	\$4,724,563	\$199,707			
Total Existing and Proposed Water Debt						\$46,490,829	\$3,354,244	\$52,450,185	\$1,375,079	\$37,661	\$90,225	

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.

2016 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2017 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2016 Balance	2017 Principal	Yr End 2017 Balance	Accrued 2017 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mgt Fee	Interest Expense		
Existing Debt Cape Elizabeth													
10/30/2008	WW08-03	Cape - Generators	2028	2.0750% - 5.5750%	\$95,000	\$57,000	\$4,750	\$52,250	\$2,632	\$0	\$2,632	\$6,986	
12/16/2011	WW11-01	CESO Treatment / Spurwink (SRF)	2031	1.0000% - 1.0000%	\$2,430,000	\$1,822,500	\$121,500	\$1,701,000	\$18,023	\$0	\$18,023		
10/25/2012	WW12-03	Cape Ottawa Rd CSO Studies / Treatment	2032	1.4800% - 3.7060%	\$160,000	\$128,000	\$8,000	\$120,000	\$3,533	\$0	\$3,533		
05/28/2015	WW15-02	Wastewater CE Garden Lane	2035	1.2500% - 3.8900%	\$240,000	\$228,000	\$12,000	\$216,000	\$6,598	\$0	\$6,598		
Total Existing Debt Cape Elizabeth						\$2,235,500	\$146,250	\$2,089,250	\$30,786	\$0	\$30,786	\$6,986	
Proposed Cape Elizabeth													
05/01/2017	WW_Cape TP/PS/Peabbles_2	ape Elizabeth TP, PS, Peabbles Cove	2037	5.0000% - 5.0000%	\$500,000	\$0	\$0	\$500,000	\$16,667	\$0	\$16,667		\$3,500
Total Proposed Debt Cape Elizabeth						\$0	\$0	\$500,000	\$16,667	\$0	\$16,667		\$3,500
Total Existing and Proposed Debt Cape Elizabeth						\$2,235,500	\$146,250	\$2,589,250	\$47,453	\$0	\$47,453	\$6,986	\$3,500
Existing Debt Cumberland													
12/22/2006	WW06-01	Cumberland -Tuttle Pump Station (SRF)	2026	1.4200% - 1.4200%	\$125,000	\$62,500	\$6,250	\$56,250	\$880	\$0	\$880	\$357	
Total Existing Debt Cumberland						\$62,500	\$6,250	\$56,250	\$880	\$0	\$880	\$357	
Existing Debt Falmouth													
05/01/2016	WW16-03	Mill Creek PS SRF	2036	1.0000% - 1.0000%	\$4,000,000	\$4,000,000	\$200,000	\$3,800,000	\$40,000	\$0	\$40,000	\$12,000	
Total Existing Debt Falmouth						\$4,000,000	\$200,000	\$3,800,000	\$40,000	\$0	\$40,000	\$12,000	
Proposed Falmouth													
11/01/2017	WW_Falmouth Mill Creek_1	Falmouth Mill Creek PS Phase 2	2037	2.0000% - 2.0000%	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Total Proposed Debt Falmouth						\$0	\$0	\$0	\$0	\$0	\$0		
Total Existing and Proposed Debt Falmouth						\$4,000,000	\$200,000	\$3,800,000	\$40,000	\$0	\$40,000	\$12,000	
Existing Debt Gorham													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$78,120	\$22,900	\$3,906	\$18,994	\$274	\$0	\$274	\$64	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$73,185	\$25,461	\$3,659	\$21,802	\$284	\$0	\$284	\$142	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$252,000	\$113,400	\$12,600	\$100,800	\$1,831	\$0	\$1,831	\$722	
07/02/2007	WW07-01	GR Portion -Treatment Water Plant & Scum (SRF)	2017	1.0000% - 1.0000%	\$146,000	\$14,600	\$14,600	\$0	\$73	\$0	\$73	\$737	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRI	2028	2.0000% - 5.5000%	\$50,400	\$30,240	\$2,520	\$27,720	\$1,285	\$0	\$1,285		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens S	2029	2.0750% - 5.5750%	\$474,672	\$308,537	\$23,734	\$284,803	\$14,884	\$0	\$14,884		

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.

2016 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2017 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2016	2017	Yr End 2017	Accrued 2017 Interest & Fees			MMBB/DEP	Issue Cost
						Balance	Principal	Balance	Interest Exp	DEP Mgt Fee	Interest Expense	Admin Fee	
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$4,258,208	\$2,580,732	\$215,061	\$2,365,671	\$36,388	\$0	\$36,388	\$12,611	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$253,475	\$152,085	\$12,674	\$139,411	\$1,489	\$0	\$1,489	\$710	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$233,954	\$152,070	\$11,698	\$140,373	\$6,342	\$0	\$6,342		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$52,360	\$36,652	\$2,618	\$34,034	\$362	\$0	\$362	\$149	
Total Existing Debt Gorham						\$3,436,677	\$303,069	\$3,133,608	\$63,213	\$0	\$63,213	\$15,136	
Proposed Gorham													
04/01/2017	WW_Sludge Dewatering_2	WEWWTF Sludge Dewatering SRF	2037	3.0000% - 3.0000%	\$308,000	\$0	\$0	\$308,000	\$6,930	\$0	\$6,930	\$231	\$924
Total Proposed Debt Gorham						\$0	\$0	\$308,000	\$6,930	\$0	\$6,930	\$231	\$924
Total Existing and Proposed Debt Gorham						\$3,436,677	\$303,069	\$3,441,608	\$70,143	\$0	\$70,143	\$15,367	\$924
Existing Debt Portland													
10/30/1997	WW97-01	Peaks Torrington Point Upgrades	2017	5.3800% - 5.3800%	\$1,100,000	\$55,000	\$55,000	\$0	\$0	\$0	\$0		
10/26/2001	WW01-01	Peaks Ryefield / Seashore Upgrades (SRF)	2021	2.1000% - 2.1000%	\$2,785,000	\$696,250	\$139,250	\$557,000	\$14,134	\$0	\$14,134	\$2,308	
11/01/2001	WW01-02	EETreatment Clarifiers/Screens/Grit Upgrades (SR)	2021	2.1000% - 2.1000%	\$1,250,000	\$312,500	\$62,500	\$250,000	\$6,344	\$0	\$6,344	\$1,036	
04/01/2003	WW03-01	Refund Issue EETF Clarifiers/Screens/Grit (SRF)	2020	0.0000% - 4.0590%	\$1,615,500	\$354,261	\$89,750	\$264,511	\$3,245	\$0	\$3,245	\$1,413	
04/01/2003	WW03-02	Portland Treatment Odor Control (SRF)	2022	0.0000% - 4.2030%	\$5,200,000	\$1,524,301	\$260,000	\$1,264,301	\$18,265	\$0	\$18,265	\$4,233	
11/13/2003	WW03-12	EETF Dewatering/Clarifiers/Screens/Grit (SRF)	2023	0.0000% - 4.4930%	\$1,230,000	\$422,350	\$61,500	\$360,850	\$3,631	\$0	\$3,631	\$2,391	
11/13/2003	WW03-13	EE Treatment Primary Sedimentation & Odor (SRF)	2023	0.0000% - 4.4930%	\$2,000,000	\$698,721	\$100,000	\$598,721	\$8,955	\$0	\$8,955	\$3,888	
12/03/2004	WW04-01	EE Treatment Odor Control (SRF)	2024	1.3300% - 1.3300%	\$375,000	\$150,000	\$18,750	\$131,250	\$1,933	\$0	\$1,933	\$726	
12/03/2004	WW04-02	EE Treatment Dewatering (SRF)	2024	1.3300% - 1.3300%	\$1,740,000	\$696,000	\$87,000	\$609,000	\$8,968	\$0	\$8,968	\$3,369	
12/01/2005	WW05-01	EE Treatment Hypochlorite Upgrade (SRF)	2025	1.6300% - 1.6300%	\$1,900,000	\$855,000	\$95,000	\$760,000	\$13,807	\$0	\$13,807	\$5,447	
04/01/2009	WW09-03	Portland India Pump Station Upgrade (SRF)	2028	1.4700% - 1.4700%	\$5,700,000	\$3,371,928	\$280,994	\$3,090,934	\$48,879	\$0	\$48,879	\$16,528	
11/01/2010	WW10-03	Portland Northeast & Pump Station Upgrades (SRF)	2030	1.0000% - 1.0000%	\$752,200	\$526,540	\$37,610	\$488,930	\$5,203	\$0	\$5,203	\$2,144	
10/27/2011	WW11-02	Portland Pump Station Upgrades	2031	0.5000% - 5.5000%	\$400,000	\$300,000	\$20,000	\$280,000	\$8,734	\$0	\$8,734		
11/04/2013	WW13-02	Peaks Island Sewer Extension	2033	3.0000% - 4.0000%	\$3,000,000	\$2,550,000	\$150,000	\$2,400,000	\$98,250	\$0	\$98,250		
12/04/2015	WW15-07	EEWWTF Aeration Upgrade SRF	2035	1.0000% - 1.0000%	\$2,000,000	\$1,900,000	\$100,000	\$1,800,000	\$18,750	\$0	\$18,750	\$5,950	
06/01/2016	WW16-01	EEWWTF Aeration Phase 2 SRF	2036	1.0000% - 1.0000%	\$7,000,000	\$7,000,000	\$350,000	\$6,650,000	\$84,065	\$0	\$84,065	\$22,099	
06/01/2016	WW16-02	Fore River PS SRF	2036	1.0000% - 1.0000%	\$1,200,000	\$1,200,000	\$60,000	\$1,140,000	\$14,411	\$0	\$14,411	\$3,788	
Total Existing Debt Portland						\$22,612,852	\$1,967,354	\$20,645,498	\$357,573	\$0	\$357,573	\$75,320	
Proposed Portland													
11/01/2017	WW_EETF Aeration SRF P3_F Aeration Syst Upgrade Phase 3 SRF		2037	3.0000% - 3.0000%	\$3,000,000	\$0	\$0	\$3,000,000	\$15,000	\$0	\$15,000		\$9,000
11/01/2017	WW_Fore River PS 2_2	Fore River PS, Phase 2 SRF	2037	3.0000% - 3.0000%	\$2,500,000	\$0	\$0	\$2,500,000	\$12,500	\$0	\$12,500		\$7,500
11/01/2017	WW_Northeast Odor_1	Northeast PS Odor Control	2037	5.0000% - 5.0000%	\$550,000	\$0	\$0	\$550,000	\$4,583	\$0	\$4,583		\$5,000
Total Proposed Debt Portland						\$0	\$0	\$6,050,000	\$32,083	\$0	\$32,083		\$21,500
Total Existing and Proposed Debt Portland						\$22,612,852	\$1,967,354	\$26,695,498	\$389,657	\$0	\$389,657	\$75,320	\$21,500

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.

2016 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2017 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2016	2017	Yr End 2017	Accrued 2017 Interest & Fees			MMBB/DEP	Issue Cost
					Principal	Balance	Principal	Balance	Interest Exp	DEP Mgt Fee	Interest Expense	Admin Fee	
Existing Debt Westbrook													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$284,208	\$83,311	\$14,210	\$69,101	\$998	\$0	\$998	\$231	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$266,254	\$92,630	\$13,313	\$79,317	\$1,033	\$0	\$1,033	\$517	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$1,316,800	\$592,560	\$65,840	\$526,720	\$9,569	\$0	\$9,569	\$3,775	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRI	2028	2.0000% - 5.5000%	\$183,360	\$110,016	\$9,168	\$100,848	\$4,674	\$0	\$4,674		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens S	2029	2.0750% - 5.5750%	\$2,384,641	\$1,550,017	\$119,232	\$1,430,785	\$74,774	\$0	\$74,774		
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$974,925	\$584,955	\$48,746	\$536,209	\$5,728	\$0	\$5,728	\$2,730	
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$113,220	\$79,254	\$5,661	\$73,593	\$783	\$0	\$783	\$323	
12/04/2015	WW15-08	Westbrook CSO Upgrade SRF	2035	1.0000% - 1.0000%	\$1,000,000	\$950,000	\$50,000	\$900,000	\$9,375	\$0	\$9,375	\$2,975	
Total Existing Debt Westbrook						\$4,042,743	\$326,170	\$3,716,573	\$106,934	\$0	\$106,934	\$10,551	
Proposed Westbrook													
04/01/2017	WW_Sludge Dewatering_2	WEWWTF Sludge Dewatering SRF	2037	3.0000% - 3.0000%	\$666,000	\$0	\$0	\$666,000	\$14,985	\$0	\$14,985	\$500	\$1,998
Total Proposed Debt Westbrook						\$0	\$0	\$666,000	\$14,985	\$0	\$14,985	\$499.50	\$1,998
Total Existing and Proposed Debt Westbrook						\$4,042,743	\$326,170	\$4,382,573	\$121,919	\$0	\$121,919	\$11,051	\$1,998

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.

2016 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2017 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue	Yr End 2016	2017	Yr End 2017	Accrued 2017 Interest & Fees			MMBB/DEP	Issue Cost
					Principal	Balance	Principal	Balance	Interest Exp	DEP Mgt Fee	Interest Expense	Admin Fee	
Existing Debt Windham													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$9,672	\$2,835	\$484	\$2,352	\$34	\$0	\$34	\$8	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$9,061	\$3,152	\$453	\$2,699	\$35	\$0	\$35	\$18	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$31,200	\$14,040	\$1,560	\$12,480	\$227	\$0	\$227	\$89	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRI	2028	2.0000% - 5.5000%	\$6,240	\$3,744	\$312	\$3,432	\$159	\$0	\$159		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens S	2029	2.0750% - 5.5750%	\$40,687	\$26,447	\$2,034	\$24,412	\$1,276	\$0	\$1,276		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$1,681,792	\$1,019,268	\$84,939	\$934,329	\$14,372	\$0	\$14,372	\$4,981	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$21,600	\$12,960	\$1,080	\$11,880	\$127	\$0	\$127	\$60	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$196,046	\$127,430	\$9,802	\$117,627	\$5,314	\$0	\$5,314		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$4,420	\$3,094	\$221	\$2,873	\$31	\$0	\$31	\$13	
Total Existing Debt Windham						\$1,212,970	\$100,885	\$1,112,084	\$21,574	\$0	\$21,574	\$5,169	
Proposed Windham													
04/01/2017	WW_Sludge Dewatering_2	WEWWTF Sludge Dewatering SRF	2037	3.0000% - 3.0000%	\$26,000	\$0	\$0	\$26,000	\$585	\$0	\$585	\$20	\$78
Total Proposed Debt Windham						\$0	\$0	\$26,000	\$585	\$0	\$585	\$20	\$78
Total Existing and Proposed Debt Windham						\$1,212,970	\$100,885	\$1,138,084	\$22,159	\$0	\$22,159	\$5,188	\$78

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 12/31/2015)	\$ 2,915,038
10% of Revenue Requirement (2017 Budget)	\$ 2,257,327

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 1/4" 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 2017 budget assumes 1% of the proposed 1.67% water rate adjustment be dedicated to the capital reserve. In 2014, 2015 and 2016 1% of the rate adjustments were dedicated to the reserve.

	2015 Actual	2016 Budget	2017 Budget
Revenue	361,426	599,462	836,796
Expense	291,992	583,254	788,202
Annual Charge	69,434	16,208	48,594
Carry Forward	119,679	199,276	245,882
	189,113	215,484	294,476

Renewal & Replacement

Each fund contributes to a renewal and replacement (R&R) fund. These funds are used to pay for smaller capital projections as an alternative to issuing long term debt. Each fund maintains an 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.

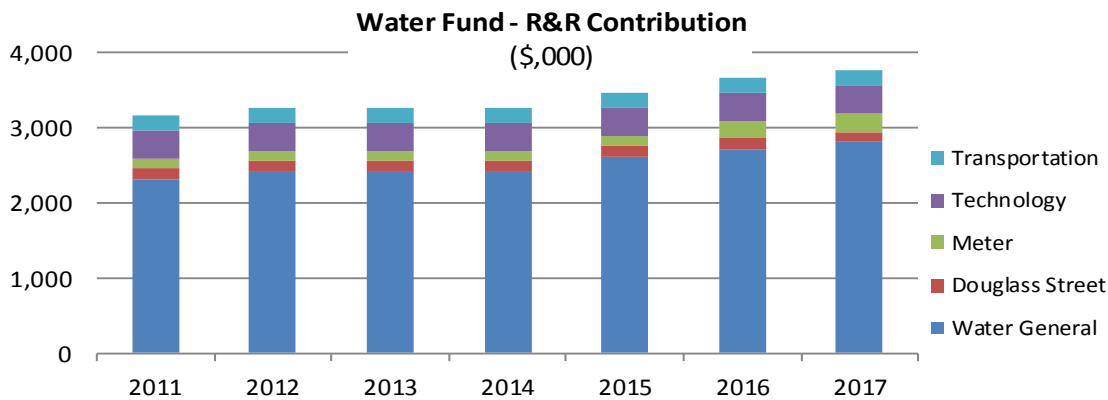
Transportation – These assets are used by all District funds. The charge for the R&R funding is part of the hourly rate of each vehicle (an internal line item).

2017 Contributions:

	Fund	Douglass St	Meters	Technology	Combined*	Total
Water	\$2,800,000	\$96,360	\$157,176	\$111,100	\$364,636	\$3,164,636
Wastewater:						
Cape Elizabeth	80,000	4,650	4,248	7,140	16,038	96,038
Cumberland	19,628	2,265	2,184	3,920	8,369	27,997
Gorham	54,202	3,660	3,696	5,640	12,996	67,198
Portland	720,000	33,210	41,592	57,400	132,202	852,202
Westbrook	377,652	7,410	9,960	12,960	30,330	407,982
Windham	20,000	930	192	1,840	2,962	22,962
Contracted Services:						
Falmouth	-	-	-	-	-	-
Scarborough	-	15	2,592	-	2,607	2,607
South Portland	-	1,500	18,360	-	19,860	19,860
R&R - Funds	4,071,482	150,000	240,000	200,000	590,000	4,661,482
R&R - Transportation						380,000
R&R - Total						5,041,482
*Combined = Douglass St + Meters + Technology						

Water Fund - Renewal & Replacement Fund

A total of \$3,770,000 is contributed to the renewal and replacement fund in 2017. Similar to the debt service costs, renewal and replacement reserve is directly received from the fund or indirectly through appropriate allocation method from all funds. The Water renewal and replacement contribution is capped at approximately \$4,080,000, 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 12/31/14	\$2,520,714	\$372,939	\$86,605	\$327,076	\$477,207	\$3,784,541
Contribution - 2015	2,600,000	150,000	140,000	200,000	380,000	3,470,000
Expenditure	<u>-1,375,591</u>	<u>-192,054</u>	<u>-237,865</u>	<u>-73,688</u>	<u>-272,038</u>	<u>-2,151,236</u>
Balance 12/31/15	\$3,745,123	\$330,885	-\$11,260	\$453,388	\$585,169	\$5,103,305
Contribution - 2016	\$2,700,000	\$150,000	\$240,000	\$200,000	\$380,000	\$3,670,000
Expenditure (Est'd)	<u>-\$860,000</u>	<u>-\$395,000</u>	<u>-\$250,000</u>	<u>-\$250,000</u>	<u>-\$400,000</u>	<u>-\$2,155,000</u>
Balance 12/31/16 (Est'd)	\$5,585,123	\$85,885	-\$21,260	\$403,388	\$565,169	\$6,618,305
Contribution - 2017	\$2,800,000	\$150,000	\$240,000	\$200,000	\$380,000	\$3,770,000
Expenditure (Est'd)	<u>-\$1,031,400</u>	<u>-\$400,000</u>	<u>-\$263,500</u>	<u>-\$425,000</u>	<u>-\$350,000</u>	<u>-\$2,469,900</u>
Balance 12/31/17 (Est'd)	\$7,353,723	-\$164,115	-\$44,760	\$178,388	\$595,169	\$7,918,405
Target R&R Balance (1% of Gross Fixed Asset Cost)						\$2,915,039

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 2015, operating surpluses in Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham were transferred to each fund's R&R fund.

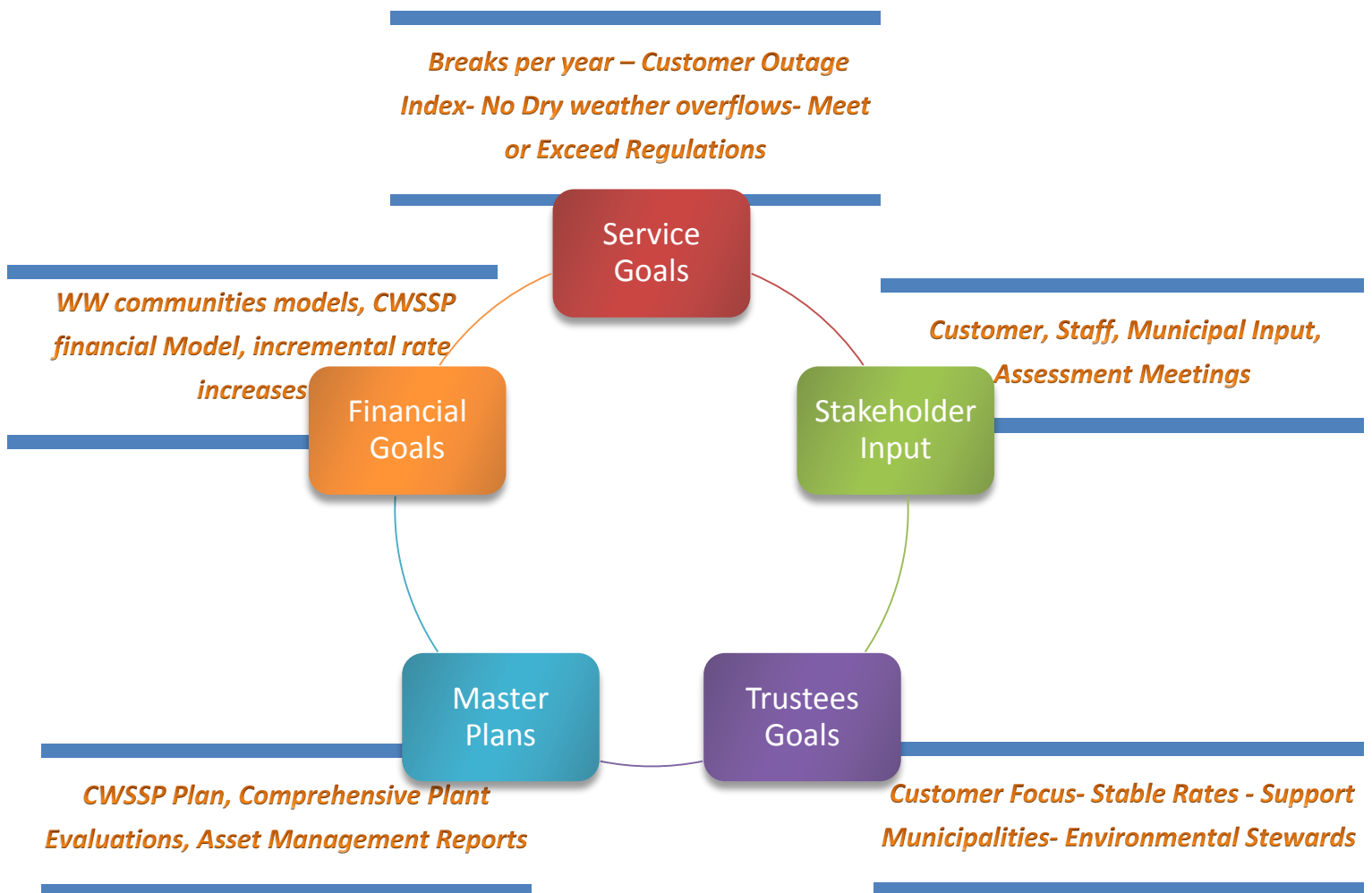
In 2017, R&R contributions stayed the same in Cape Elizabeth and Cumberland. All other funds had a decrease: Gorham went from \$83,815 to \$54,202, Portland from \$725,000 to \$720,000, Westbrook from \$407,904 to \$377,652, and Windham from \$32,687 to \$20,000. As a group, the Wastewater funds decreased their R&R contributions by \$77,552 or 5.75%.

The estimated 2017 expenditures from the R&R fund are based on the 2017 Capital Improvements Budget as outlined in the Capital Expenditure section.

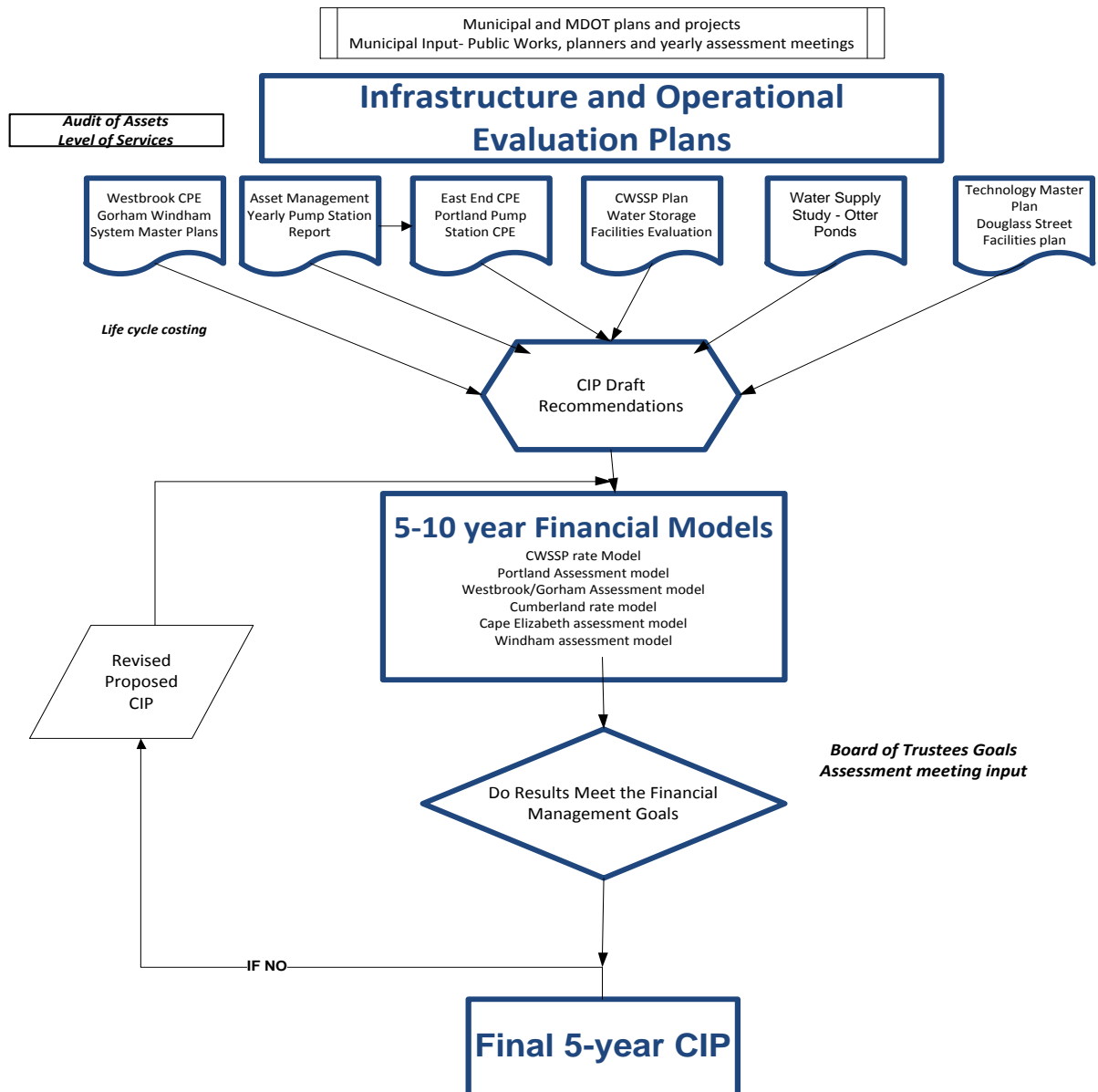
	----- Wastewater Funds -----					
	CAPE ELIZABETH	CUMBERLAND	GORHAM	PORTLAND	WESTBROOK	WINDHAM
Balance 12/31/14	201,832	262,203	595,951	2,813,289	1,753,926	239,378
Contribution - 2015	80,000	19,628	127,947	728,196	407,904	32,687
Operating Surplus Transfer	93,152	26,158	75,785	418,859	126,884	8,481
<u>Expenditure</u>	<u>(47,530)</u>	<u>-</u>	<u>(62,690)</u>	<u>(978,928)</u>	<u>(177,425)</u>	<u>(42,052)</u>
Balance 12/31/15	327,454	307,989	736,993	2,981,415	2,111,289	238,494
Contribution - 2016	80,000	19,628	83,815	725,000	407,904	32,687
Operating Surplus Transfer	-	-	-	-	-	-
<u>Expenditure (Est'd)</u>	<u>(224,000)</u>	<u>(130,000)</u>	<u>(138,331)</u>	<u>(1,243,244)</u>	<u>(268,450)</u>	<u>(31,970)</u>
Balance 12/31/16 Estimated	183,454	197,617	682,477	2,463,171	2,250,744	239,212
Contribution - 2017	80,000	19,628	54,202	720,000	377,652	20,000
Operating Surplus Transfer	-	-	-	-	-	-
<u>Expenditure (Est'd)</u>	<u>(150,000)</u>	<u>(62,000)</u>	<u>(91,050)</u>	<u>(850,000)</u>	<u>(101,600)</u>	<u>(52,350)</u>
Balance 12/31/17 Estimated	113,454	155,245	645,630	2,333,172	2,526,796	206,862
Target Renew al & Replacement (3% of Net Capital Assets)	<u>\$477,250</u>	<u>\$232,560</u>	<u>\$528,139</u>	<u>\$2,988,446</u>	<u>\$640,203</u>	<u>\$90,184</u>

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 stakeholder's input, including input from customers, municipalities, regulators and staff. Staff recommends the Board of Trustees authorize the projects in first year of the plan to be completed. Capital Expenditures are 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.



Capital Improvement Program Process



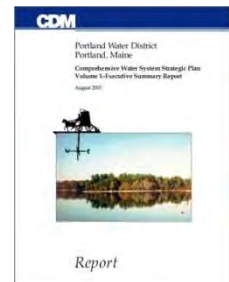
Infrastructure and Operational Evaluation Plans

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 2016 are identified by project numbers.

Water Fund

Comprehensive Waster System Strategic Plan (CWSSP) - March 2003

Camp Dresser & McKee 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 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 3 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 to the concrete tanks to comply with OSHA fall protection standards were made (CIP project #203).

Water Main Replacement Funding

	2012	2013	2014	2015	2016	2017
Program– 43	2.0	\$2.5	\$3.0	\$3.5	\$4.0	\$4.0
Program -111	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0
Capital Reserve Funding			\$2.0	\$2.0	\$2.0	\$2.0
Total Funding	\$3.0	\$3.5	\$6.0	\$6.5	\$7.0	\$7.0

** Recommendation to Bond \$2.0 million each year starting in 2014 under the Capital Reserve funding mechanism

Proposed \$7,000,000 for 2017 estimated to replace between 5-6 miles

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 Rt. 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 6500-feet down Dyer Road and Huston Road to route 202 connecting into the 2008 upgrades. This project provided an increase in pressure to approximately 150 customers that had substandard pressure and increase fire protection to the area.

A hydraulic analysis of the combined system and final design of the proposed pump station is underway and planned for completion in 2016 and the pump station construction is being proposed in 2017 (CIP 307). Land acquisition and design for a new storage facility to replace the Windham Center Tank is proposed for 2018 (CIP 307).

Water Fund (continued)

Southern Maine Regional Water Council – Water Master Plan Study – October 2008



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 and will be developing an action plan to carry out the report's recommendations. In 2016 the Council will be completing an update to the 2008 Regional Plan and specifically will be exploring a Portland Water District/Maine Water interconnection on Route 1 in Scarborough.

Greater Portland Water System – Water Treatment/Alternate Source – November 2008

Camp Dresser & McKee completed a study of the Sebago Lake Water Treatment Facility 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 was completed for the \$12 million project and was on line in April of 2014.

Water Fund (continued)

The final hydrogeological study of the Otter Ponds Aquifer well has been completed. A production well has been developed, tested and is licensed for an emergency supply that could supply Standish, Gorham and Windham if needed. The in-lake screening alternative was recommended to provide raw water screening for SLWTF. In this alternative, large screens would be added to the two intake pipes and the screening process would be removed from the current Intake Facilities. This project is proposed for design in 2017 and construction in 2018(CIP #18 SLWTF intakes).



Before painting



After painting

The Shore Acres Water Tank was decommissioned in 2007 from the Water System (CWSSP recommendation). It was repurposed for use as a Supervisory Control and Data Acquisition (SCADA) repeater site for 28 Cape Elizabeth wastewater pump stations as well as leased to cellular companies. The District rehabilitated the Tank for these purposes in 2016.

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 plus inch rain storm in August 2014.

In 2009, the District engaged Wright-Pierce to evaluate methods that could lead to elimination of an unlicensed combined sewer overflow 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 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 Rd. CSO.

The scope of 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.

Cape Elizabeth – Sewer System

CCTV assessment of the collection system is ongoing as part of the District's 10 year program to inspect its entire collection systems. Much of the system has been televised. The project is expected to be mostly completed in 2017.

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 will go 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, upgrades at three stations are proposed in 2016 (Broad Cove, #2313; Stonegate North #2556; and Maiden Cove #52). Design of these improvements is underway with construction schedule for 2017.



**2016 CIP Subprogram #407, Project #1867
Peabbles Cove Force Main Replacement**

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 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
- 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. 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. It seems likely that the Westbrook will have at least a phosphorus monitoring requirement in the next permit. Therefore, the study also evaluated options for nutrient management at the treatment plant to develop a scope and probable cost for future compliance with phosphorus removal mandates. The report evaluated several alternatives to achieve different levels of phosphorus removal and identified recommended upgrades to meet those levels which ranged from a capital cost of \$1M up to \$11M (if extremely stringent effluent limits are established).

Wastewater Funds (continued)

Gorham/Westbrook/Windham – Westbrook Regional Treatment Plant Evaluations

In 2015, the District completed an evaluation of sludge dewatering technologies for the 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 (#2075) has been replaced with a proposed upgrade to an alternative technology (#2534).

During 2010, the Town of Windham completed a feasibility study to sewer 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 has placed this project on hold indefinitely.

Westbrook Gorham Windham Regional Treatment Plant



Wastewater Funds (continued)

Westbrook – Sewer System

In late 2007, the District signed a contract with Woodard & Curran, Brown & Caldwell and Jordan Environmental to upgrade 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 will involve the City, and some will involve the District. Because the City operates the collection system, the bulk of the first five years will focus on the removal of Inflow & Infiltration from the City collection system. Later portions of the plan will include storage and other work on District owned assets.

The flow from all CSO outfalls is 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 evaluation of storage and pumping capacity at the Dana Ct. Pump Station (#2527) which is currently in progress.

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 the Town. 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 (#2317) and Canterbury Pines PS (#1117) were proposed for 2016 and are currently in design with construction planned for 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. 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 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 has not been upgraded since the original plant construction is the aeration system. Upgrade of the aeration system will enable 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 is scheduled for completion in the fall of 2017. The first of three aeration basin was brought online in August of 2016 and provided a significant increase the plant's instantaneous oxygen transfer capability to enable it to meet today's peak demand loading to the facility. Maintaining aerobic conditions in that train have promoted good settling and will reduce odors generation by the aeration system.

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 – East End WWTF Aeration Upgrades

The first of three aeration basins brought online in summer of 2016 at the East End Wastewater Treatment Facility



Fine Bubble Aeration



Wastewater Funds (continued)

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. 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 Northeast pump station are pending future CSO and storm water work planned by the City. Subprogram 70 and 420 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.

The Fore River Pump Station pumping system and controls upgrade is progressing as scheduled and planned for completion in 2016 (Phase 1). The second phase of upgrades to the Fore River station are proposed for 2017 and will primarily include upgrade of the station's screening, electrical, and ventilation systems.

The City of Portland submitted a Tier III Long Term Control Plan for the mitigation of CSO flows to MEDEP 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.

Fore River Pump Station Pump system and Controls Upgrade (phase 1) New Pumps delivered



Wastewater Funds (continued)

Cumberland – Pump Stations

In 2007, the District completed upgrading the Tuttle Road pump station and the Foreside Road pump station. Minor revisions were completed at Powell Road pump station in 2006. The Powell Rd. 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 subprogram 41. The following was completed in 2009:

- Hooking up a metering vault located on Route 88. This will give 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 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 possible impact the capacity and cost of shared infrastructure in Falmouth.

The Town of Falmouth is in the process of replacing the joint use Mill Creek Pump Station and Force Main. The project began in 2016 and will be completed 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 EEWTF. 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.

Project 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 EEWTF. The Peaks Island WWTF automation upgrade was completed in 2009, allowing for improved automatic operation and monitoring and control of the plant from the EEWWTF's SCADA System. The upgrade of the treatment plant in Cape Elizabeth included similar control system improvements.



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 11/21/16	Special Approval
SCADA & Technology	\$485,000	
Vehicle and Equipment Replacement	\$350,000	
Wastewater Collection Systems and Pumping	\$5,747,000	
Wastewater Treatment Facilities	\$880,000	
Water Distribution System Upgrades	\$10,338,500	
Water Facilities Program	\$645,000	
Water Supply - Sebago Lake and Steep Falls	\$275,000	
Program Totals	\$18,720,500	
Combined Program Total		\$18,720,500

Note: Projects that require "Special Approval" will be brought back to the Board of Trustees for specific authorization. In 2016 there are no projects included in this category.

Proposed Board Action:

ORDERED: that the 2017-2021 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2017 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 2017 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 2017

Program	Subprogram #	Budget
SCADA & Technology		
SCADA /Process Control - Water	110	\$225,000
SCADA /Process Control - Wastewater	177	\$60,000
Technology Upgrade and Replacement	50	\$200,000
	Program Total	\$485,000
Vehicle & Equipment Replacement		
Vehicle and Equipment Replacement	326	\$350,000
	Program Total	\$350,000
Wastewater Collection Systems & Pumping		
Cape Elizabeth Pump Stations - R&R	52	\$100,000
Cumberland WW Pump Stations - R&R	41	\$62,000
Gorham WW Pump Stations - R&R	60	\$90,000
Portland CSO Mitigation	131	\$20,000
Portland WW Pump Stations -Capital	420	\$3,050,000
Portland WW Pump Stations -R&R	70	\$100,000
Westbrook CSO Abatement	29	\$2,245,000
Westbrook WW Systems R&R	411	\$10,000
Windham - Little Falls WW system - Capital	181	\$50,000
Windham - Little Falls WW system R&R	180	\$20,000
	Program Total	\$5,747,000
Wastewater Treatment Facilities		
Cape Elizabeth WWTF - R&R	424	\$50,000
Cape Elizabeth WWTF - Capital	418	\$25,000
East End WWTF - R&R	409	\$485,000
East End WWTF - Capital	21	\$35,000
Peaks Island R&R	423	\$185,000
Westbrook/Gorham /Windham WWTF R&R	416	\$100,000
	Program Total	\$880,000

Program Summary for 2017

Program	Subprogram #	Budget
<u>Water Distribution System Upgrades</u>		
Meter Replacement and Leak Detection	63	\$263,500
Gorham/Windham 407 Zone Improvements	307	\$2,000,000
Water Valve Replacement	53	\$200,000
Water Hydrants Replacement	65	\$200,000
Water Main Renewal - Seasonal Mains	56	\$25,000
Water Main Replacement - Capital	43	\$6,000,000
Water Main Replacement - R&R	111	\$1,000,000
Water Services - Renew Domestic & Fire	61	\$600,000
Water System Redundancy (Looping) and Upsizing Dev.	408	\$50,000
	Program Total	\$10,338,500
<u>Water Facilities Program</u>		
Facilities Improvements	68	\$400,000
SLWTF Intakes – Replace Mechanical Screens	18	\$100,000
Water Facilities Renewal and Replacement	122	\$120,000
Water Storage Facility Maintenance & Upgrade	203	\$25,000
	Program Total	\$645,000
<u>Water Supply - Sebago Lake and Steep Falls</u>		
Water System Security	46	\$25,000
Watershed Security and Safety – Rt 35/237 Redesign	425	\$250,000
	Program Total	\$275,000
	CIP Total	\$18,720,500

Fund Summary for 2017

Subprogram		Subprogram #	Budget	Manager
Division	10 Allocation			
Facilities Improvements		68	\$400,000	Paradis, Roger
Meter Replacement and Leak Detection		63	\$263,500	Wallace, Jim
Technology Upgrade and Replacement		50	\$200,000	Davis, Chad
Vehicle and Equipment Replacement		326	\$350,000	Paradis, Roger
	Division 10	Total	\$1,213,500	
Division	20 Water - General			
Gorham/Windham 407 Zone Improvements		307	\$2,000,000	Johnson, Gordon
SCADA /Process Control - Water		110	\$225,000	Richard, Emile
SLWTF Intakes - Replace Mechanical Screens		18	\$100,000	McMullin, Tim
Water Valve Replacement		53	\$200,000	Wallace, Jim
Water Facilities Renewal and Replacement		122	\$120,000	Wallace, Jim
Water Hydrants Replacement		65	\$200,000	Wallace, Jim
Water Main Renewal - Seasonal Mains		56	\$25,000	Wallace, Jim
Water Main Replacement - Capital		43	\$6,000,000	Johnson, Gordon
Water Main Replacement - R&R		111	\$1,000,000	Johnson, Gordon
Water Services - Renew Domestic & Fire		61	\$600,000	Wallace, Jim
Water Storage Facility Maintenance & Upgrade		203	\$25,000	Johnson, Gordon
Watershed Security and Safety – Rt 35/237 Redesign		425	\$250,000	Johnson, Gordon
Water System Redundancy (Looping) and Upsizing development		408	\$50,000	Johnson, Gordon
Water System Security		46	\$25,000	Wallace, Jim
	Division 20	Total	\$10,820,000	
Division	51 Wastewater - Cape Elizabeth			
Cape Elizabeth Pump Stations - R&R		52	\$100,000	Poulin, Charlene
Cape Elizabeth WWTF - Capital		418	\$25,000	Firmin, Scott
Cape Elizabeth WWTF - R&R		424	\$50,000	Waterman, Robert
	Division 51	Total	\$175,000	
Division	53 Wastewater - Cumberland			
Cumberland WW Pump Stations - R&R		41	\$62,000	Poulin, Charlene
	Division 53	Total	\$62,000	

Fund Summary for 2017

Subprogram	Subprogram #	Budget	Manager
Division 55 Wastewater - Windham Little Falls			
Windham - Little Falls WW System R&R	180	\$20,000	Poulin, Charlene
Windham - Little Falls WW System Capital	181	\$50,000	Poulin, Charlene
Division 55	Total	\$70,000	
Division 57 Wastewater - Portland			
East End WWTF - R&R	409	\$485,000	Sloan, Steve
East End WWTF - Capital	21	\$35,000	Sloan, Steve
SCADA/Process Control - Wastewater	177	\$60,000	Richard, Emile
Portland CSO Mitigation	131	\$20,000	Poulin, Charlene
Portland WW Pump Stations - Capital	420	\$3,050,000	Poulin, Charlene
Portland WW Pump Stations - R&R	70	\$100,000	Poulin, Charlene
Division 57	Total	\$3,750,000	
Division 61 Wastewater - Gorham Village			
Gorham WW Pump Stations - R&R	60	\$55,000	Poulin, Charlene
Division 61	Total	\$55,000	
Division 62 Wastewater - Westbrook			
Westbrook CSO Abatement	29	\$2,245,000	Poulin, Charlene
Westbrook WW Systems R&R	411	\$10,000	Poulin, Charlene
Division 62	Total	\$2,255,000	
Division 64 Wastewater - Joint Westbrook			
Westbrook/Gorham /Windham WWTF R&R	416	\$100,000	Waterman, Robert
Division 64	Total	\$100,000	
Division 65 Wastewater - Joint Little Falls			
Gorham WW Pump Stations - R&R	60	\$35,000	Poulin, Charlene
Division 65	Total	\$35,000	
Division 66 Wastewater - Peaks			
Peaks Island R&R	423	\$185,000	Waterman, Robert
Division 66	Total	\$185,000	
Total of All Divisions:		\$18,720,500	

Financing Summary for 2017

In 2017, 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 WWTF - Capital	418	\$25,000
	East End WWTF - Capital	21	\$35,000
	Portland WW Pump Stations - Capital	420	\$3,050,000
	Westbrook CSO Abatement	29	\$2,220,000
	Windham - Little Falls WW System Capital	181	\$50,000
	Total for: Bonds - WW		\$5,380,000
Bonds - Water			
	Water Main Replacement - Capital	43	\$6,000,000
	SLWTF Intakes – Replace Mechanical Screen Design	18	\$100,000
	Gorham/Windham 407 Zone Improvements	307	\$2,000,000
	Total for: Bonds - Water		\$8,100,000
R&R - Wastewater			
	Cape Elizabeth Pump Stations - R&R	52	\$100,000
	Cape Elizabeth WWTF - R&R	424	\$50,000
	Cumberland WW Pump Stations - R&R	41	\$62,000
	East End WWTF - R&R	409	\$485,000
	Gorham WW Pump Stations - R&R	60	\$100,000
	Peaks Island R&R	423	\$185,000
	Portland CSO Mitigation	131	\$20,000
	Portland WW Pump Stations - R&R	70	\$100,000
	SCADA/Process Control - Wastewater	177	\$60,000
	Westbrook CSO Abatement	29	\$25,000
	Westbrook WW Systems R&R	411	\$10,000
	Westbrook/Gorham /Windham WWTF R&R	416	\$100,000
	Windham - Little Falls WW System R&R	180	\$20,000
	Total for: R&R - Wastewater		\$1,307,000

Financing Summary for 2017

In 2017, 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
R&R - Water			
	Facilities Improvements	68	\$400,000
	Meter Replacement and Leak Detection	63	\$263,500
	SCADA /Process Control - Water	110	\$225,000
	Technology Upgrade and Replacement	50	\$200,000
	Vehicle and Equipment Replacement	326	\$350,000
	Water Valve Replacement	53	\$200,000
	Water Facilities Renewal and Replacement	122	\$120,000
	Water Hydrants Replacement	65	\$200,000
	Water Main Renewal - Seasonal Mains	56	\$25,000
	Water Main Replacement - R&R	111	\$1,000,000
	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 System Security	46	\$25,000
	Total for: R&R - Water		\$3,683,500
Land Reserve			
	Watershed Security and Safety – Rt 35/237 Redesign	425	\$250,000
	Total for: Land Reserve		\$250,000
Grand Total			\$18,720,500

Priority Summary Report for 2017

Non-Routine

Priority Reason	Subprogram	Subprogram #	Budget
<u>Regulatory mandate</u>			
These projects are required by law or permits.			
	Portland CSO Mitigation	131	\$20,000
	Westbrook CSO Abatement	29	\$2,245,000
	Total for: Regulatory mandate		\$2,265,000
<u>Security of facilities</u>			
These are projects to address water and wastewater system security vulnerabilities.			
	Water System Security	46	\$25,000
	Watershed Security and Safety – Rt 35/237 Redesign	425	\$250,000
	Total for: Security of facilities		\$275,000
<u>Upgrade obsolete facility</u>			
These projects have been identified through comprehensive facility evaluations (CWSSP and CPE) as necessary to extend the life of existing facilities.			
	Cape Eliz. WWTF – Capital	418	\$25,000
	East End WWTF Capital Upgrade	21	\$35,000
	Facilities Improvements	68	\$400,000
	Gorham/Windham 407 Zone Improvements	307	\$2,000,000
	SCADA /Process Control - Water	110	\$225,000
	SCADA /Process Control - Wastewater	177	\$60,000
	Portland WW Pump Station Capital Upgrade	420	\$3,050,000
	Total for: Upgrade Obsolete facility		\$5,795,000

Items in RED are planned to be financed from bond issues in 2017 or Future Years. Other projects are to be financed through the renewal and replacement reserves.

Priority Summary Report for 2017

Routine

Priority Reason	Subprogram	Subprogram #	Budget
Routine replacement			
Projects that require year-to-year funding to routinely replace or renew			
	Cape Elizabeth Pump Stations - R&R	52	\$100,000
	Cape Elizabeth WWTF - R&R	424	\$50,000
	Cumberland WW Pump Stations - R&R	41	\$62,000
	East End WWTF - R&R	409	\$485,000
	Gorham WW Pump Stations - R&R	60	\$90,000
	Meter Replacement and Leak Detection	63	\$263,500
	Peaks Island R&R	423	\$185,000
	Portland WW Pump Stations - R&R	70	\$100,000
	SLWTF Intakes – Replace Mechanical Screens	18	\$100,000
	Technology Upgrade and Replacement	50	\$200,000
	Vehicle and Equipment Replacement	326	\$350,000
	Water Valve Replacement	53	\$200,000
	Water Facilities Renewal and Replacement	122	\$120,000
	Water Hydrants Replacement	65	\$200,000
	Water Main Renewal - Seasonal Mains	56	\$25,000
	Water Main Replacement - Capital	43	\$6,000,000
	Water Main Replacement - R&R	111	\$1,000,000
	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
	Westbrook WW Systems R&R	411	\$10,000
	Westbrook/Gorham/Windham WWTF R&R	416	\$100,000
	Windham - Little Falls WW System R&R	180	\$20,000
	Windham - Little Falls WW System Capital	181	\$50,000
Total for: Routine replacement			\$10,385,500
Grand Total			\$18,720,500

Items in RED are planned to be financed from bond issues in 2017 or Future Years. Other projects are to be financed through the renewal and replacement reserves.

Subprograms with Pending Unscheduled Work

Subprogram Title	Subprogram #	Cost	Manager
<u>Division 20 Water - General</u>			
Watershed Land Acquisition	1	\$434,000	Twaddel, Norman
<u>Division 51 Wastewater - Cape Elizabeth</u>			
Cape Elizabeth Pump Stations - Capital	407	\$250,000	Firmin, Scott
Total of All Divisions:		\$684,000	

Pending Unscheduled Work are projects that may occur in 2017.

Subprogram # 1 - Watershed land acquisitions occur if a buyer approaches the District to sell their property located in our watershed area.

Subprogram # 407 - A study is underway exploring the source and possible solutions to address sewer overflow on Ottawa Road in Cape Elizabeth. The study may indicate that a capital improvement needs to be made at the pump station.

If the project is 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 2017 Budget.

CIP Operating Fund Summary Impact

Project/Item	Project #	Total Budget	2017	2018	2019	2020	2021	Expense Type
10 - Allocation								
Facilities Improvements	68	\$400,000						Operating Expense
Facilities upgrades RR						\$50,000		
Douglass St 3rd Floor Exterior Wall Replacement						\$250,000		
Facilities Upgrades RR - 2nd floor renovations						\$100,000		
Meter Replacement and Leak Detection	63	\$263,500						
Technology Upgrade and Replacement	50	\$200,000						
Hansen System Replacement Evaluation				\$100,000	\$10,000	\$10,000	\$10,000	
Technology Upgrades				\$100,000				
Vehicle and Equipment Replacement	326	\$350,000						
						\$1,213,500		
20 - Water - General								
Gorham/Windham 407 Zone Improvements	307	\$2,000,000	\$50,000	\$318,333	\$308,333	\$298,333	\$288,333	Debt Service
SCADA /Process Control - Water	110	\$225,000						
Process Control and SCADA Upgrades						\$50,000		
SLWTF Ozone - Water temp controls						\$25,000		
SCADA Radio Modem Replacement Project - phase 2						\$150,000		
SLWTF Intakes - Replace Mechanical Screen	18	\$100,000						
Water Distribution Valve Replacement	53	\$200,000						
Water Facilities Renewal and Replacement	122	\$120,000						
Standby Generator Cooling Tower Core Repair						\$45,000		
Water Facilities Renewal and Replacement						\$75,000		
Water Hydrants Replacement	65	\$200,000						
Water Main Renewal - Seasonal Mains	56	\$25,000						
Water Main Replacement - Capital	43	\$6,000,000	\$150,000	\$955,000	\$925,000	\$895,000	\$865,000	Debt Service
Water Main Replacement - R&R	111	\$1,000,000						
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 System Security	46	\$25,000						
Watershed Security and Safety - Rt 35/237 Redesign	425	\$250,000						
						\$10,820,000		

51 - Wastewater - Cape Elizabeth									
Cape Elizabeth WWTF - Capital	418	\$25,000							
Headworks Heating and Ventilation Design			\$25,000						
Cape Elizabeth WWTF - R&R	424	\$50,000							
Security Upgrades			\$30,000	\$300	\$300	\$300	\$300	\$300	Contract Services
Cape Eliz. W/TF - R&R			\$20,000						
Cape Elizabeth Pump Stations - R&R	52	\$100,000							
Peabbles Pump Station Upgrades			\$10,000						
Little John Pump Station - Fuel Tank Removal			\$25,000	(\$300)	(\$300)	(\$300)	(\$300)	(\$300)	Permit fees
Mitchell Road Pump Station Upgrades			\$35,000						
Cape Elizabeth Pump Stations - R&R			\$30,000						
			\$100,000						
53 - Wastewater - Cumberland									
Cumberland WW Pump Stations - R&R	41	\$62,000							
Ocean Terrace Pump Station Upgrades			\$42,000						
Cumberland W/W Pump Stations - R&R			\$20,000						
55 - Wastewater - Windham Little Falls									
Windham - Little Falls WW System R&R	180	\$20,000							
Windham R&R			\$20,000						
Windham - Little Falls WW System Capital	181	\$50,000							
Depot Street Design			\$50,000						
57 - Wastewater - Portland									
East End WWTF - R&R	409	\$485,000							
EEW/TF - R&R			\$75,000						
Security Improvements			\$25,000	\$250	\$250	\$250	\$250	\$250	Contract Services
CCT and Effluent Flow Meter Isolation - Design			\$25,000						
East End Combined Heat & Power- Preliminary Design			\$15,000						
Grit Removal System Rehabilitation			\$250,000						
WAS Meter Replacement			\$45,000						
Switchgear Rehabilitation			\$40,000						
Influent Splitter Actuator/Controls Prelim Design			\$10,000						
East End WWTF - Capital	21	\$35,000							
Headworks Gates and Screen Replacement - Design (PH 3)			\$35,000						
Portland Pump Station Upgrades - Capital	420	\$3,050,000							
Fore River Pump Station Upgrades Phases 3-5			\$2,500,000	\$50,000	\$268,958	\$262,708	\$256,458	\$250,208	Debt Service
Northeast Pump Station Odor Control			\$550,000	\$20,000	\$70,290	\$69,027	\$67,765	\$66,502	Debt Service
Portland CSO Mitigation	131	\$20,000							
India St & NEPS Tide Gate Replacement Design			\$20,000						
Portland WW Pump Stations - R&R	70	\$100,000							
Baxter Boulevard Manhole Replacement			\$50,000						
Portland W/W Pump Stations - R&R			\$50,000						
SCADA/Process Control - Wastewater	177	\$60,000							
Process Control and SCADA upgrades			\$50,000						
EEW/WTP - SCADA System Ethernet Switch Replacement			\$10,000						
			\$3,750,000						

61 - Wastewater - Gorham Village									
Gorham WW Pump Stations - R&R	60	\$55,000							
Gorham W/W Pump Stations - R&R			\$55,000						
62 - Wastewater - Westbrook									
Westbrook CSO Abatement	29	\$2,245,000							
Design of upgrades to Dana Court PS			\$2,245,000	\$55,000	\$243,565	\$237,952	\$232,340	\$226,727	Debt Service
Westbrook WW Systems R&R	411	\$10,000							
			\$2,255,000						
64 - Wastewater - Joint Westbrook									
Westbrook/Gorham /Windham WWTF R&R	416	\$100,000							
Routine Renewal and Replacement			\$100,000						
65 - Wastewater - Joint Little Falls									
Gorham WW Pump Stations - R&R	60	\$35,000							
Routine Renewal and Replacement			\$35,000						
66 - Wastewater - Peaks									
Peaks Island R&R	423	\$185,000							
Peaks W/WTF Decant Pump Replacement/Refurbishment			\$125,000						
Peaks W/WTF Loading Capacity Evaluation			\$10,000	1,000	1,000	1,000	1,000	1,000	Operating Expense
Catch Basin Repairs			\$30,000						
Peaks Island RR			\$20,000						
			\$185,000						
Total 2016 CIP			\$18,720,500						

Capital Expenditures

Capital Improvement Program - Five Year Plan

Subprogram	#	2017	2018	2019	2020	2021	Five -Year Total
Division: 10 Allocation							
Facilities Improvements	68	\$400,000	\$300,000	\$450,000	\$220,000	\$200,000	\$1,570,000
Meter Replacement and Leak Detection	63	\$263,500	\$250,000	\$250,000	\$250,000	\$250,000	\$1,263,500
Technology Upgrade and Replacement	50	\$200,000	\$1,200,000	\$1,200,000	\$200,000	\$200,000	\$3,000,000
Vehicle and Equipment Replacement	326	\$350,000	\$400,000	\$400,000	\$400,000	\$400,000	\$1,950,000
Division 10 Total		\$1,213,500	\$2,150,000	\$2,300,000	\$1,070,000.00	\$1,050,000	\$7,783,500
Division: 20 Water - General							
Gorham/Windham 407 Zone Improvements	307	\$2,000,000	\$400,000	\$2,500,000	\$1,000,000		\$5,900,000
SCADA/Process Control - Water	110	\$225,000	\$50,000	\$50,000	\$134,000		\$459,000
SLWTF Intakes - Replace Mechanical Screens	18	\$100,000	\$1,100,000				\$1,200,000
Water Facilities Renewal and Replacement	122	\$120,000	\$125,000	\$50,000	\$50,000	\$50,000	\$395,000
Water Hydrants Replacement	65	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Water Main Renewal- Seasonal Mains	56	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000
Water Main Replacement - Capital	43	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$30,000,000
Water Main Replacement - R&R	111	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
Water Services - Renew Domestic & Fire	61	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$3,000,000
Water Storage Facility Maintenance & Upgrade	203	\$25,000	\$425,000	\$100,000	\$50,000	\$25,000	\$625,000
Water System Redundancy (Looping) and Upsizing dev	408	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
Water System Security	46	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000
Water Valve Replacement	53	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Watershed Security and Safety - Rt 35/237 Redesign	425	\$250,000					\$250,000
Division 20 Total		\$10,820,000	\$10,200,000	\$10,800,000	\$9,334,000.00	\$8,175,000	\$49,329,000
Division: 50 Wastewater - General							
SCADA/Process Control - Wastewater	177		\$300,000	\$350,000	\$16,000	\$50,000	\$716,000
Division 50 Total			\$300,000	\$350,000	\$16,000.00	\$50,000	\$716,000

Capital Expenditures

Capital Improvement Program - Five Year Plan

Subprogram	#	2017	2018	2019	2020	2021	Five -Year Total
Division: 51 Wastewater - Cape Elizabeth							
Cape Elizabeth Pump Stations - Capital	407		\$650,000	\$200,000			\$850,000
Cape Elizabeth WWTF - Capital	418	\$25,000	\$1,500,000				\$1,525,000
Cape Elizabeth WWTF - R&R	424	\$50,000	\$100,000	\$70,000	\$50,000	\$20,000	\$290,000
Cape Elizathbeth Pump Stations - R&R	52	\$100,000	\$80,000	\$30,000	\$300,000	\$30,000	\$540,000
Division 51 Total		\$175,000	\$2,330,000	\$300,000	\$350,000.00	\$50,000	\$3,205,000
Division: 53 Wastewater - Cumberland							
Cumberland WW Pump Stations - R&R	41	\$62,000	\$20,000	\$220,000	\$20,000	\$155,000	\$477,000
Division 53 Total		\$62,000	\$20,000	\$220,000	\$20,000.00	\$155,000	\$477,000
Division: 55 Wastewater - Windham Little Falls							
Windham - Little Falls WW System Capital	181	\$50,000	\$425,000	\$387,500			\$862,500
Windham - Little Falls WW System R&R	180	\$20,000	\$20,000	\$20,000	\$85,000	\$20,000	\$165,000
Division 55 Total		\$70,000	\$445,000	\$407,500	\$85,000.00	\$20,000	\$1,027,500
Division: 57 Wastewater - Portland							
East End WWTF - R&R	409	\$485,000	\$600,000	\$875,000	\$400,000	\$75,000	\$2,435,000
East End WWTF Capital Upgrade	21	\$35,000	\$600,000	\$2,750,000		\$1,800,000	\$5,185,000
Portland CSO Mitigation	131	\$20,000	\$400,000				\$420,000
Portland WW Pump Station Capital Upgrade	420	\$3,050,000					\$3,050,000
Portland WW Pump Stations - R&R	70	\$100,000	\$190,000	\$325,000	\$325,000	\$50,000	\$990,000
SCADA/Process Control - Wastewater	177	\$60,000	\$50,000	\$64,000	\$50,000		\$224,000
Division 57 Total		\$3,750,000	\$1,840,000	\$4,014,000	\$775,000.00	\$1,925,000	\$12,304,000
Division: 61 Wastewater - Gorham Village							
Gorham WW Pump Stations - R&R	60	\$55,000	\$15,000	\$10,000	\$10,000	\$10,000	\$100,000

Capital Improvement Program - Five Year Plan

Subprogram	#	2017	2018	2019	2020	2021	Five -Year Total
Division 61 Total		\$55,000	\$15,000	\$10,000	\$10,000.00	\$10,000	\$100,000
Division: 62 Wastewater - Westbrook							
Westbrook CSO Abatement	29	\$2,245,000	\$200,000			\$300,000	\$2,745,000
Westbrook WW Systems R&R	411	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Division 62 Total		\$2,255,000	\$210,000	\$10,000	\$10,000.00	\$310,000	\$2,795,000
Division: 64 Wastewater - Joint Westbrook							
SCADA/Process Control - Wastewater	177			\$4,000	\$35,000		\$39,000
Westbrook Gorham Windham Regional WWTF - Capital	167			\$250,000	\$2,300,000		\$2,550,000
Westbrook/Gorham /Windham WWTF R&R	416	\$100,000	\$125,000	\$50,000	\$50,000	\$50,000	\$375,000
Division 64 Total		\$100,000	\$125,000	\$304,000	\$2,385,000.00	\$50,000	\$2,964,000
Division: 65 Wastewater - Joint Little Falls							
Gorham WW Pump Stations - R&R	60	\$35,000					\$35,000
Division 65 Total		\$35,000					\$35,000
Division: 66 Wastewater - Peaks							
Peaks Island R&R	423	\$185,000	\$55,000	\$20,000		\$250,000	\$510,000
Division 66 Total		\$185,000	\$55,000	\$20,000		\$250,000	\$510,000
Grand Total		\$18,720,500	\$17,690,000	\$18,735,500	\$14,055,000	\$12,045,000	\$81,246,000

2016 CIP Progress Report

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2017</u>	<u>Unspent- appropriate to R&R</u>
<u>SCADA & Technology</u>				
SCADA / Process Control - Water	110	\$108,000	Completed 2016 (2512 canceled)	\$40,000
SCADA / Process Control - Wastewater	177	\$0		
Technology Upgrades	50	\$230,000	2541 & 2531 unspent	\$165,000
<u>Vehicle & Equipment Replacement</u>				
Lab Equipment	95	\$12,000	Completed 2016	
Vehicle & Equipment Replacement	326	\$400,000	Completed 2016	
<u>Wastewater Collection Systems & Pumping</u>				
Cape Elizabeth Pump Stations - R&R	52	\$115,000	Carryover to 2017	
Cape Elizabeth Pump Stations - Capital	407	\$350,000	Completed 2016 (52 postponed)	\$75,000
Cumberland WW Pump Stations - R&R	41	\$115,000	Carryover to 2017	\$20,000
Falmouth WW Pump Station - Capital	55	\$6,138,000	Ongoing, multiyear project	
Gorham WW Pump Station - R&R	60	\$90,000	Carryover to 2017	\$10,000
Portland CSO Mitigation	131	\$200,000	Ongoing	
Portland Pump Station - R&R	70	\$265,000	Ongoing	\$50,000
Westbrook CSO Abatement	29	\$218,000	Ongoing	
Westbrook WW Systems R&R	411	\$10,000	Unspent	\$10,000
Windham Little Falls System R&R	180	\$50,000	Carryover to 2017	\$20,000
<u>Wastewater Treatment Facilities</u>				
Cape Elizabeth WWTF - R&R	424	\$40,000	Ongoing	
Cape Elizabeth WWTF - Capital	418	\$30,000	Ongoing	
East End WWTF - R&R	409	\$155,000	Ongoing	
East End WWTF - Capital	21	\$0		
Peaks Island R&R	423	\$120,000	Ongoing	
Wastewater Asset Condition Evaluation	421	\$150,000	Ongoing	\$54,000
Westbrook – Comprehensive Evaluation	167	\$1,000,000	Ongoing	
Westbrook/Gorham /Windham WWTF R&R	416	\$62,000	Ongoing	

2016 CIP Progress Report - continued

<u>Program</u>	<u>CIP #</u>	<u>Appropriated Funds</u>	<u>Carry over projects to 2017</u>	<u>Unspent Re-appropriate to R&R</u>
<u>Water Distribution System Upgrades</u>				
407 Zone Pump Station Construction	307	\$2,000,000	Ongoing, multiyear project	
Meter Replacement and Leak Detection	63	\$250,000	Completed 2016	
Water Valve Replacement	53	\$200,000	Completed 2016	
Water Hydrants Replacement	65	\$200,000	Completed 2016	\$100,000
Water Main Renewal - Cast Iron Mains	43	\$6,000,000	Ongoing	
Water Main Renewal - Galvanized Mains	111	\$1,000,000	Ongoing	
Water Main Renewal - Seasonal Mains	53	\$25,000	Completed 2016	\$10,000
Water Services - Renew Domestic & Fire	61	\$560,000	Completed 2016	\$450,000
Water System Redundancy (Looping) and Upsizing	408	\$50,000	Unspent	\$50,000
<u>Water Facilities Program</u>				
Facilities Improvements	68	\$349,400	Reprogrammed, Carryover to 2017	\$20,000
SLWTF Treatment Process Improvements	315	\$0		
Water Facilities Renewal and Replacement	122	\$200,000	Ongoing	\$50,000
Water Storage Facility Maintenance & Upgrade	203	\$185,000	Completed 2016	
<u>Water Supply - Sebago Lake and Steep Falls</u>				
Water System Security	46	\$25,000	Completed 2016	

Completed 2016 - This designates the subprogram is either completed or will be completed by first quarter of 2017. Carry over projects are projects that were programmed to be started in 2016 but will not start until sometime in 2017.

In the following Subprogram descriptions, items highlighted in gray are going to happen in 2017.

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. 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 and Stanford in 2008)



Subprogram # 2 Watershed Land Conservation

Division: Water - General

Manager: Hunt, Paul

Funding: 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 up 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 1	Watershed Land Conservation	\$100,000
Total Cost, All Years:		\$100,000

Previous Years on CIP:

None

Related Projects:

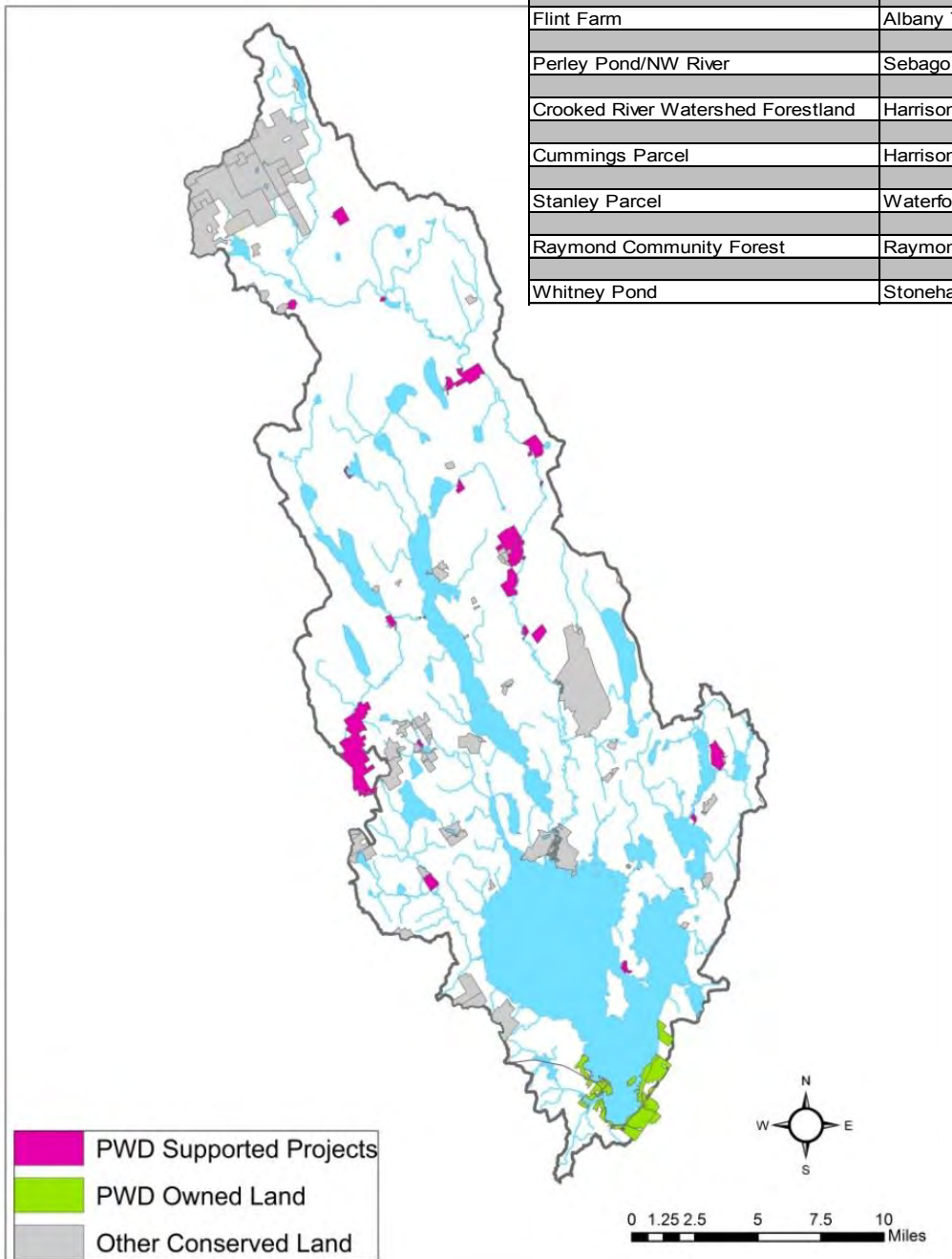
Subprogram #1 – Watershed Land Acquisition

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 2008-2015 – 3600 Acres Conserved - \$480,000

Project	Town	Acres	Year	PWD 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



Subprogram # 18**SLWTF Intakes - Replace Mechanical Screens****Division:** Water - General**Manager:** McMullin, Tim**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:

Budget year	Project	Budget Year Cost
2017	2642 SLWTF Raw Water Screening - Engineering	100,000
2018	675 Replace Mechanical Screens with Intake Screens	1,100,000
Total Cost, All Years:		1,200,000

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 Capital Upgrade****Division:** Wastewater - Portland**Manager:** Sloan, Steve**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility

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 thirty-seven 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.

Budget year	Project	Budget Year Cost
2017	2547 Headworks Gates and Screen Replacement – Design (PH 3)	35,000
2018	2548 Dewatering System Odor Control System Expansion	200,000
2018	2046 EEWWTF - Influent screen replacement (PH3)	400,000
2019	2650 Full Plant Medium Voltage Backup Power	2,750,000
2021	2651 Main Switchgear and Power Distribution Upgrade	1,800,000
Total Cost, All Years:		5,185,000

Previous Years on CIP: 1999 to present**Related Projects:** 409 EE WWTF - RR**Procurement Issues:** RFP for engineering services. Construction services will be low bid.

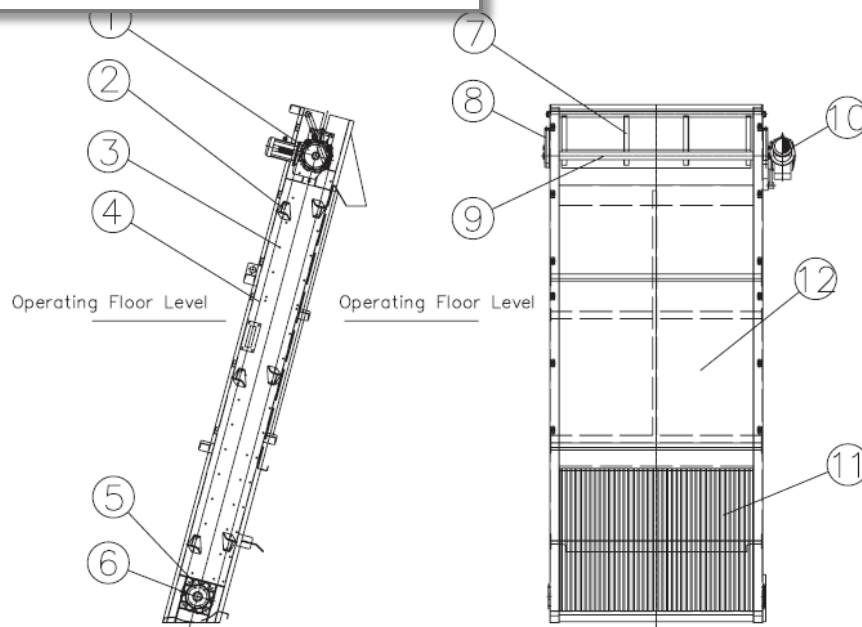
Subprogram # 21 East End WWTF Capital Upgrade

2017 –Project #2547-Design

Headworks Gates and Influent Screen. This is the third Gate of three that will be replaced (Phase 3)

2018 –Project # 2046 -- Construction of Influent Screen Replacement

2018 –Project # 2548 -- Dewatering System Odor Control Expansion

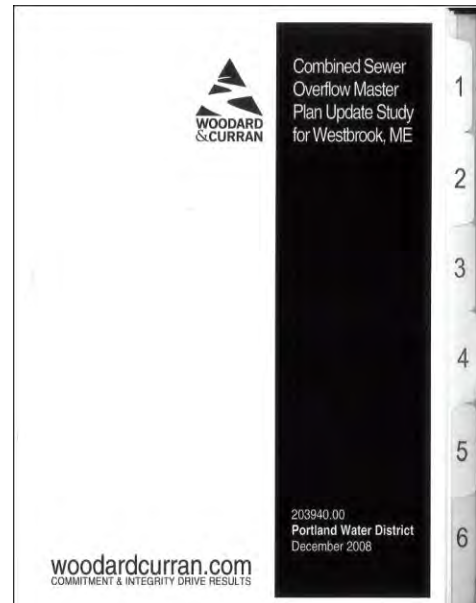


Subprogram # 29**Westbrook CSO Abatement****Division:** Wastewater - Westbrook**Manager:** Poulin, Charlene**Funding:** Bonds - Wastewater**Priority:** Regulatory mandate**Description:**

This project contemplates funding and programming the design and construction of projects recommended in a study that was completed by Woodard and Curran and Brown and 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 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. The District has followed the program as outlined in the Master Plan.

**History:**

King Street / Brown Street sewer work put aside in lieu of updating the Westbrook CSO Master Plan. Project awarded to Woodard and Curran/Brown and Caldwell. The most recent update of the Master Plan was submitted on 12/31/14. The Brown and King Street Project was constructed in 2015.

Budget year	Project	Budget Year Cost
2017	2523 Design Screens for Warren Ave, Dunn Street CSOs	20,000
2017	2528 Upgrades to Dana Court PS	2,200,000
2017	2526 Raise Overflow Weirs on Brown, King St. regulators	25,000
2018	2524 Construction of Screens	200,000
2021	2521 Design New Storage Facility at Siphon Inlet	300,000
PEND	2522 Construction of New Storage Facility	3,200,000
PEND	2525 Evaluate size and options for Storage Facility	40,000
Total Cost, All Years:		5,985,000

Previous Years on CIP: 2000 to present**Related Projects:****Procurement Issues:****Weir at Warren Ave CSO**

Subprogram # 29 Westbrook CSO Abatement

2015 CSO project – \$1,000,000 – This was a State Revolving Loan Fund (SRF) project that included replacing 1,200-feet of sanitary sewer interceptor along with 1,300-feet of force main with a larger size pipes to carry more wastewater to be treated during storm events. Replacement of 1700 feet of old water main was also included in this project- \$600,000 - funded from 2015 Subprogram #43.



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 assests requires 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
2017	2261	Cumberland WW Pump Stations - R&R	20,000
2017	2630	Ocean Terrace PS Upgrades	42,000
2018	2315	Cumberland WW Pump Stations - R&R	20,000
2019	2515	Cumberland WW Pump Stations - R&R	20,000
2019	2631	Stony Ridge Pump Station Upgrades	80,000
2019	2683	Ferne Lane PS Upgrade	30,000
2019	2685	Brookside PS Upgrades	30,000
2019	2684	Ledge Rd PS Upgrades	60,000
2020	2606	Cumberland WW Pump Stations - R&R	20,000
2021	2673	Cumberland WW Pump Stations - R&R	20,000
2021	2686	Cumberland Meadows PS Upgrades	60,000
2021	2687	Smalls Brook PS Upgrades	75,000
Total Cost, All Years:			477,000

Previous Years on CIP:

2001 to present

Related Projects:

415 - Cumberland Pump Stations Capital Upgrades

Procurement Issues:

Condition Assessment – Cumberland Pump Stations



**2017 - Ocean Terrace
Pump Station** installed
in 1983 – current
condition rating is 3.26

2014 Cumberland Pump Station Report

Station	Rating	Station Type	Address
Brookside PS (2015)	3.18 -4.0	Sub Dup	14 Brookside Drive
Cumberland Meadows	3.63	Sub Dup	12 Red Mill Way
Drowne Road	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	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 – Capital

Division: Water - General

Manager: Pierce, Ned

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 15,000 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 60s and early 70s and PVC and HDPE pipe in the 80s. 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:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2017	1754 Water Main Replacement - Capital	6,000,000
2018	1693 Water Main Replacement - Capital	6,000,000
2019	2507 Water Main Replacement - Capital	6,000,000
2020	1534 Water Main Replacement - Capital	6,000,000
2021	2663 Water Main Replacement - Capital	6,000,000
Total Cost, All Years:		30,000,000

Previous Years on CIP:

All

Related Projects:

111 Galvanized Main Renewal Program

Procurement Issues:

Projects are contacted 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 – Capital
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	Anticipated Main Replacement Projects - 2017	MUN	Pipe Footage	Partnering Agency
			Installed	
SRF	Tuttle Road, Cumberland - Flintlock to Friar. 1922	CU	4,400	Cumberland
	Presumpscot - Providence	PO	2,700	
SRF	Veranda Street: Wordsworth to Martin Pt. 1928	PO	1,600	MDOT
	Grasmere, Deerfield, Belmeade 6", 2" 1920-1967	PO	1,200	
	Emerson Street, Congress to Quebec 6" -1932	PO	9,00	
	Somerset Street (Hanover to Forest) - Phase II	PO	1,200	Portland
	Somerset Street (Elm to Hanover) - Phase I	PO	500	Portland
	Lancaster, Chestnut	PO	1,200	
	Walnut, Cumberland to North St. Sheridan, North	PO	1,500	Portland
	State Street, Deering to Park	PO	1,200	Portland
SRF	Main Street, Colonial to Turnpike 12" 1927	WE	3,300	
	Orono Street, Hall school	PO	1,500	
SRF	River Road - 302 to Heathwood	WI	1,600	Windham
	Forest Ave at Woodford Street	PO	1,200	MDOT
	Gray Road, Turnpike entrance and Leighton Road	FA	3,400	MDOT
Estimated 2017 Total			27,400	
Priority Projects 2017				

South Portland -Westbrook Street, Western Ave to Liberty 8" - 1892 2700' water main renewal - Picture below is 12" PVC pipe utilized on the project due to the corrosive soils. This was a State Revolving Loan Funded project (SRF).



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 security of the District's facilities. The wireless network project will provide the backbone for a video surveillance system on all critical facilities. Many of the facilities are at remote sites (tanks) and would be difficult to transmit video. This wireless network (WIFI) will provide cost effective and secure method to transmit video and data. It is the intent of District to have a system over time that can monitor all its facilities from one location.

Justification / Impact:

Along with the security benefits of video surveillance, this project will also provide for redundant communication lines for voice and data transmission.

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.

**Origin of the Subprogram:**

The vulnerability assessment completed in March of 2003 indicated that physical protection of existing facilities could be improved.

Budget Summary:

Budget year	Project	Budget Year Cost
2017	2258 Water System Security improvements	25,000
2018	2421 Water System Security improvements	25,000
2019	2511 Water System Security Improvements	25,000
2020	2603 Water System Security Improvements	25,000
2021	2668 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 year	Project	Budget Year Cost
2017	2248 Technology Upgrades	200,000
2018	2414 Technology Upgrades	200,000
2018	2542 Hansen System replacement (Assets - CMMS)	1,000,000
2019	2025 Technology Upgrades	200,000
2019	2543 Hansen System Replacement (CIS)	1,000,000
2020	2449 Technology Upgrades	200,000
2021	2656 Technology Upgrade and Replacement	200,000
Total Cost, All Years:		3,000,000

Previous Years on CIP: All since 1996
Related Projects: 33
Procurement Issues: Standard procurement procedures are used for major hardware, software and consulting purchases.

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

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2260	Cape Elizabeth Pump Stations - R&R	30,000
2017	2627	Mitchell Road PS Upgrades	35,000
2017	2628	Peabbles Point Shed	10,000
2017	2671	Little John Pump Station - Fuel Tank removal	25,000
2018	2312	Cape Elizabeth Pump Stations - R&R	30,000
2018	2676	Ottawa Road PS Generator	50,000
2019	2513	Cape Elizabeth Pump Stations - R&R	30,000
2020	1104	Algonquin PS Upgrade	120,000
2020	2610	Cape Elizabeth Pump Stations - R&R	30,000
2020	2675	Stonegate South PS Upgrade	90,000
2020	2677	Peabbles Cove PS Upgrades	60,000
2021	2672	Cape Elizabeth Pump Stations - R&R	30,000
Total Cost, All Years:			540,000

Previous Years on CIP: 2000 - present**Related Projects:** #409 Cape Elizabeth Pump Stations - Capital**Procurement Issues:** Standard bidding procedures**Mitchell Road Pump Station**

installed in 1989 – current

condition rating is 3.16

Condition Assessment – Cape Elizabeth Pump Stations

<u>2014 Cape Elizabeth Pump Station Report</u>			
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	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	2.76	Packaged Dry Pit	7 Little John Road
Garden Ln Pump Station	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 2019	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	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	2.95	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. The majority of these valves are replaced during the replacement of the water mains.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2017	2251 Replace Distribution Valves	200,000
2018	2416 Replace Distribution Valves	200,000
2019	2504 Replace Distribution Valves	200,000
2020	2593 Replace Distribution Valves	200,000
2021	2669 Water Valve Replacement	200,000
Total Cost, All Years:		1,000,000

42" valve replacement on Transmission Main in

Gorham Johnson and Jordan and Shaw excavation along with District Crews completed the project in the fall of 2015 for \$130,000



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:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2017	2253 Water Main renewal - Seasonal Mains	25,000
2018	2418 Water Main renewal - Seasonal Mains	25,000
2019	2506 Water Main Renewal - Seasonal Mains	25,000
2020	2601 Water Main Replacement - Seasonal Mains	25,000
2021	2662 Water Main Replacement - Seasonal Mains	25,000
Total Cost, All Years:		125,000

Previous Years on CIP:

All

Related Projects:

57

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 assure adequate capacity, reliability and safety.

Justification / Impact:

Components of the older pump stations have reach their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely will reduce the amount spent on operating and maintaining the equipment

History:

This planned renewal and replacement will assit operations in moving toward a goal of performing more predictive and preventive maintenance instead of emergency maintenance.

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2264	Gorham WW Pump Stations - R&R	10,000
2017	2500	Manhole Raising on Main Street Gorham	20,000
2017	2632	Little River Pump Replacement/Odor Control	35,000
2017	2633	Gateway Commons Pump Replacement	25,000
2018	2319	Gorham WW Pump Stations - R&R	15,000
2019	2517	Gorham WW Pump Stations - R&R	10,000
2020	2609	Gorham WW Pump Stations - R&R	10,000
2021	2679	Gorham WW Pump Stations - R&R	10,000
Total Cost, All Years:			135,000

Previous Years on CIP: 2000 - present**Related Projects:** 71**Procurement Issues:** Primarily staff labor for installation using standard parts procured competitively.**Gateway Commons Station**

installed in 1999 – current
condition rating is 3.83 -
2017 proposed to replace
pumps

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 (2016)	3.54	Sub Dup	14 Canterbury Pines Drive
Gateway Commons (2017)	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**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
2017	2255 Water services replacement	600,000
2018	2419 Water services replacement	600,000
2019	2509 Water Services Replacement	600,000
2020	2594 Water services replacement	600,000
2020	2688 Park South PS Upgrades	90,000
2020	2690 Meadowland PS Upgrades	60,000
2020	2689 Briarwood PS Upgrades	60,000
2021	2665 Water Services - Renew Domestic & Fire	600,000
Total Cost, All Years:		3,210,000

Previous Years on CIP:

All

Related Projects:

Subprograms 43, 111

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
Funding: R & R - Water

Manager: Wallace, Jim
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 loss water. Since long service meters typically under estimate the actual water flow, the Long Service Meter Change program is needed to assure 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:

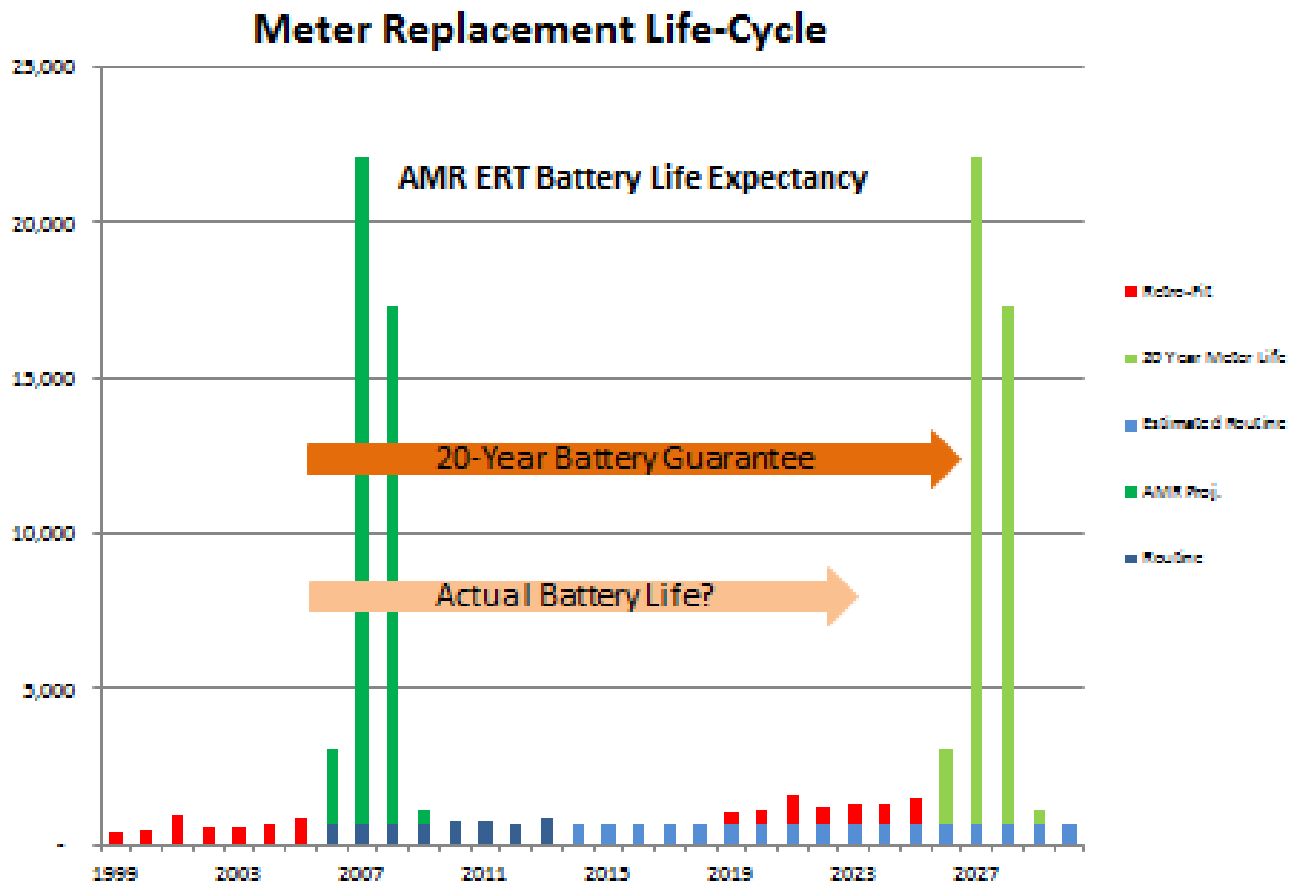
<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2249	Meter Replacement and Leak detection	250,000
2017	2620	Meter Replacement and Leak detection	13,500
2018	2411	Meter Replacement and Leak Detection	250,000
2019	2502	Meter Replacement and Leak Detection	250,000
2020	2654	Meter Replacement and Leak Detection	250,000
2021	2655	Meter Replacement and Leak Detection	250,000
Total Cost, All Years:			1,263,500

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 six hundred and twenty (620) Matthews Post hydrants (Vintage late 1800s to the late 1940s) has become difficult or impossible. The eight hundred and seventy (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 points 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 to replace and upgrade 75 hydrants per year over a twenty year replacement program of 1450 hydrants.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2017	2254 Hydrant Replacement	200,000
2018	2417 Hydrant Replacement	200,000
2019	2505 Water Hydrants Replacement	200,000
2020	2600 Hydrant Replacement	200,000
2021	2661 Water 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

Maine Fire Department Receives ISO Class 1 Rating

South Portland is the first to achieve the rating

Fire Chief Kevin Guimond said South Portland is the first city in Maine to receive a **Class 1 rating** from the Insurance Services Office, a New Jersey-based organization that advises insurance companies throughout the United States and beyond

Guimond credited a significant portion of South Portland's high rating to the Portland Water District, which provides water from Sebago Lake to more than 50,000 customers in 11 communities throughout Greater Portland.

"Forty percent of the score is water supply," Guimond said. "We have over 600 hydrants. We're expected to have a minimum flow rate of 750 gallons per minute, and our flow rate is over 1,000 gallons per minute. So we owe the Portland Water District a lot."





In November 2015, the (South Portland Fire Department) department received its Class 1 Insurance Services Office rating and ranked in the top 100 of more than 40,000 departments nationwide. The department was the first in Maine and New Hampshire to earn the rating, which is based on a fire department's capabilities. The rating helps determine homeowners' insurance premiums

Subprogram # 68**Facilities Improvements**

Division: Allocation
Funding: R & R - Water

Manager: Paradis, Roger
Priority: Upgrade obsolete facility

Description:

This project is 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:

Budget year	Project	Budget Year Cost
2017	2247 Facilities Upgrades RR	50,000
2017	2493 Douglass St 3rd Floor Exterior Wall Replacement	250,000
2017	2539 Douglass Street - 2nd floor office and carpet	100,000
2018	2407 Facilities Upgrade RR	50,000
2018	2535 Douglass Street Slate Roof replacement - Phase 2	250,000
2019	2536 Douglass Street Roof replacement Phase 3	250,000
2019	2538 Facilities Upgrade RR	100,000
2019	2540 Douglass Street - Electrical Improvements	100,000
2020	872 Demolish Douglass St. Stock Platform	20,000
2020	2501 Facilities Upgrade RR	200,000
2021	2653 Facilities Upgrade RR	200,000
2022	1070 Lunchroom Addition	100,000
Total Cost, All Years:		1,670,000

Previous Years on CIP: 2000
Related Projects: None

**2016 Customer Service
Parking Lot Rehabilitation
Project** – reconstructed
parking lot and sidewalk an
improved drainage



Subprogram # 70**Portland WW Pump Stations - R&R****Division:** Wastewater - Portland**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**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.

Budget Summary:

Budget year	Project	Budget Year Cost
2017	1914 Portland WW Pump Station Routine R&R	50,000
2017	2639 Baxter Blvd Manhole Replacement	50,000
2018	2427 Portland WW Pump Stations - R&R	100,000
2018	2637 Stroudwater Pump Station Structural Assessment	40,000
2018	2691 Baxter PS Underground Fuel Tank Removal	50,000
2019	1875 Systems Generator Installation - Portland	50,000
2019	2638 Garrison St. PS Upgrades	275,000
2020	2692 Congress St PS Upgrades	275,000
2020	2693 Westbrook St PS Generator	50,000
2021	2694 India St PS Generator	50,000
PEND	2567 Northeast Generator Replacement	650,000
Total Cost, All Years:		1,640,000

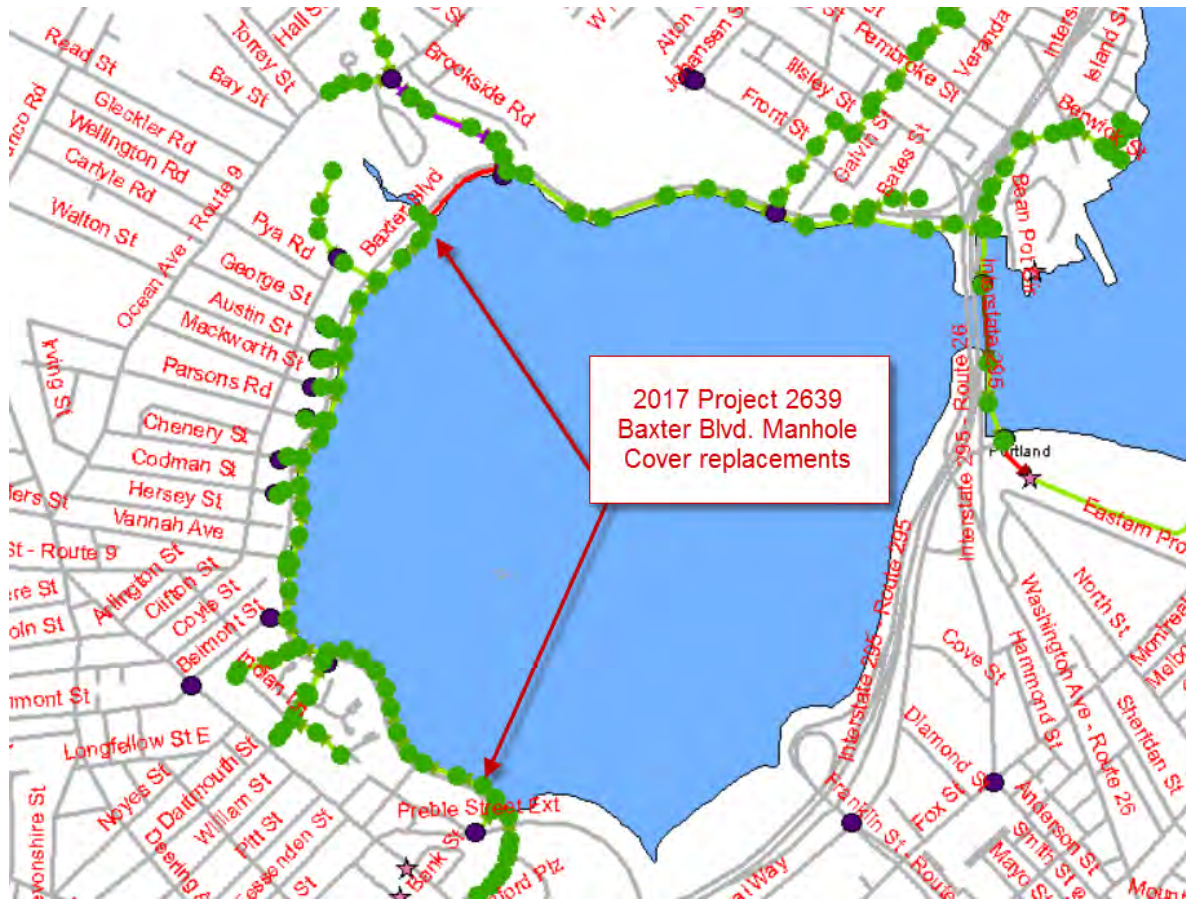
Previous Years on CIP:

2003

Related Projects:

420 - Portland WW Pump Station Capital Upgrade Program

Procurement Issues:



2017 Baxter Blvd Manhole Cover Replacement Project –
reconstruct and replace approximately 30 Manhole covers to reduce infiltration of seawater

Subprogram # 110**SCADA/Process Control - Water****Division:** Water - General**Manager:** Richard, Emile**Funding:** R & R - Water**Priority:** Upgrade obsolete facility**Description:**

The program supports 30 water sites across the District in upgrading and replacing the exiting 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 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.

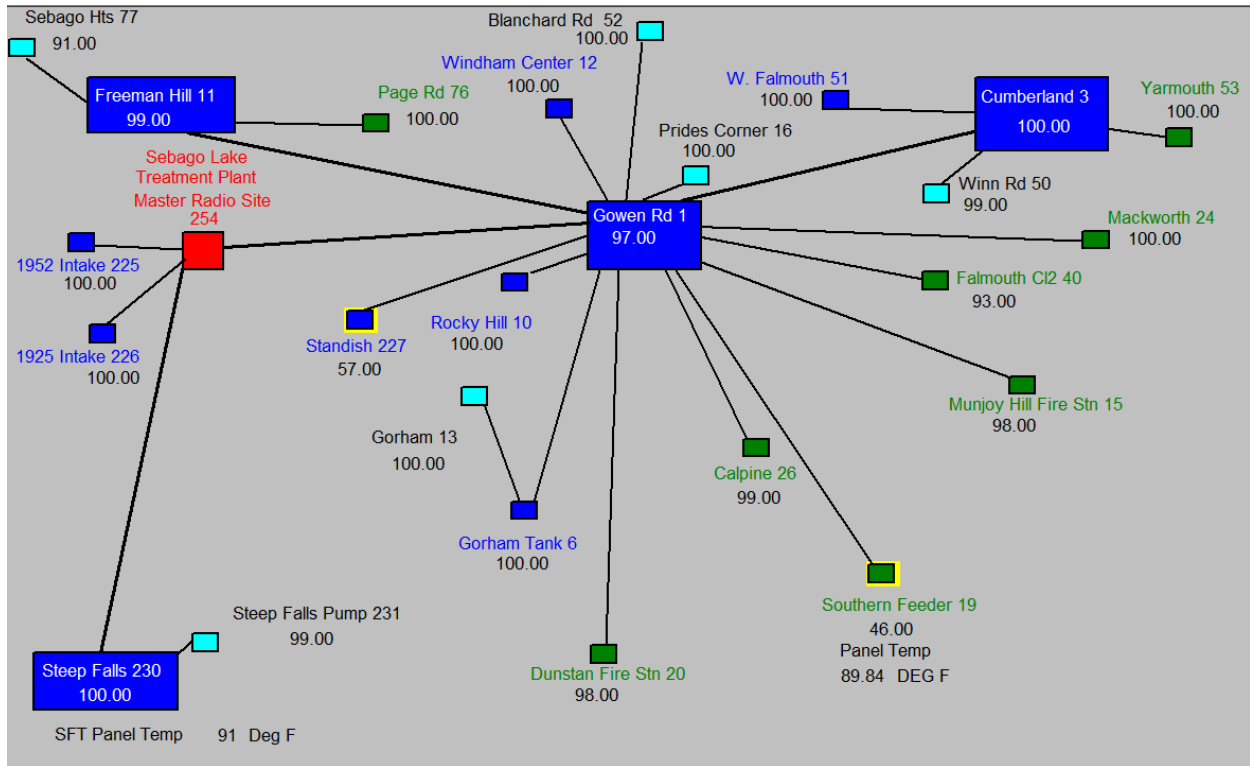
Budget Summary:

Budget year	Project	Budget Year Cost
2017	2250 Miscellaneous Control Project Upgrades	50,000
2017	2596 SCADA Radio Modem Replacement Project - phase 2	150,000
2017	2643 SLWTF - Ozone Sys Cooling Water Temp Control	25,000
2018	2412 Miscellaneous Control Project Upgrades	50,000
2019	1807 Miscellaneous Control Projects Upgrades	50,000
2020	2174 Miscellaneous Control Projects Upgrade	50,000
2020	2613 SLWTF SCADA PC Replacement Project	18,000
2020	2616 SLWTF SCADA Server Replacement Project	16,000
2020	2659 SCADA /Process Control - Water	50,000
2022	2464 Douglass St SCADA PC Renewal Program	10,000
Total Cost, All Years:		469,000

Previous Years on CIP: 2003**Related Projects:** 177**Procurement Issues:**

Subprogram # 110

SCADA/Process Control - Water



SCADA Radio Modem Replacement Project – Phase 2

Water Radio Network Upgrade

Subprogram # 111**Water Main Replacement - R&R****Division:** Water - General**Manager:** Pierce, Ned**Funding:** R & R - Water**Priority:** Routine replacement**Description:**

Renew, replace and upgrade obsolete galvanized water mains with current materials sized for current and future conditions.

Justification / Impact:

This is a cost saving and water quality improvement process. Mains selected for replacement are prioritized on the basis of water quality complaints including low volumes, leak frequency data, and age of existing plant. Commitment to Municipal and M.D.O.T. based on street reconstruction, and paving is also a major selection factor.

Level of Service – Customer

Customer Outage Index – Less Than 20

History:

Galvanized mains were installed as low cost water supply beginning in the 1900's. At one time over 250,000 feet were installed in our system. This relatively inferior material has less life expectancy than cast iron and is subject to rust related water quality and plugging problems. The District has a long term program to eliminate all galvanized mains from our system and currently approximately 26,000 feet are still in service.

Origin of the Subprogram:

The current list of project is determined on the basis of water quality complaints, leak history, and municipal or state reconstruction projects by AMAP and Water Services.

Budget Summary:

Budget year		Project	Budget Year Cost
2017	1900	Water Main Replacement - R&R	1,000,000
2018	1675	Water Main Replacement - R&R	1,000,000
2019	2508	Water Main Replacement - R&R	1,000,000
2020	2599	Water Main Replacement - R&R	1,000,000
2021	2664	Water Main Replacement - R&R	1,000,000
Total Cost, All Years:			5,000,000

Previous Years on CIP:

All

Related Projects:

43 Cast Iron Main Renewal

Procurement Issues:

Project will be placed out to bid

Subprogram # 111 Water Main Replacement – R&R



2014 - 2016 Thornton Heights Project – The District in conjunction with the City of South Portland’s CSO and Storm Water project replaced 3.5 miles old (1920s) undersized water mains

Below - 2016 Birch Knoll, Cottage Place Main Replacement Project - Town of Cape Elizabeth
Replacement of 2,400 feet of 2-inch Galvanized pipe with polyethylene pipe.



Subprogram # 119**Ottawa Road CSO Abatement****Division:** Wastewater - Cape Elizabeth**Manager:** Firmin, Scott**Funding:** Bonds - Wastewater**Priority:** Regulatory mandate**Description:**

This is currently an unlicensed CSO point. However, ongoing collector sewer reconstruction by the Town of Cape Elizabeth and the City of South Portland is expected to reduce wet weather flow in this area so that the CSO structure can be closed or abandoned. DEP is aware of this work and is supportive of postponing any District action pending the impact of the afore mentioned sewer line work.

Justification / Impact:

If ultimately required - it is due to regulatory issues. The benefit will be environmental because less storm water is discharged to Casco Bay.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND	1724 Ottawa Rd. Pump Station Upgrade	350,000
Total Cost, All Years:		350,000

Ottawa Road Pump station – installed in 1976

Subprogram # 122**Water Facilities Renewal and Replacement****Division:** Water - General**Manager:** Wallace, Jim**Funding:** R & R - Water**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 assure adequate capacity, reliability and safety of these facilities.

Justification / Impact:

Components of the older pump stations have reach their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely will reduce 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.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2017	2415 Water Facilities R&R	75,000
2017	2652 Standby Genertor Cooling Tower Core #2	45,000
2018	2378 SLWTF HVAC Controls Replacement	50,000
2018	2454 SLWTF Ammonia Storage Tank Replacement	75,000
2019	2175 Water Facilities R&R	50,000
2020	2252 Water Facilities R&R	50,000
2021	2660 Water Facilities Renewal and Replacement	50,000
Total Cost, All Years:		395,000

Previous Years on CIP: 2007 to present**Related Projects:****Sebago Lake Water Treatment Facility**

Ozone side stream injection system



Subprogram # 131**Portland CSO Mitigation****Division:** Wastewater - Portland**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**Priority:** Regulatory mandate**Description:**

PWD operates 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 DWO's or respond in a quick matter due to the alarming capabilities.

History:

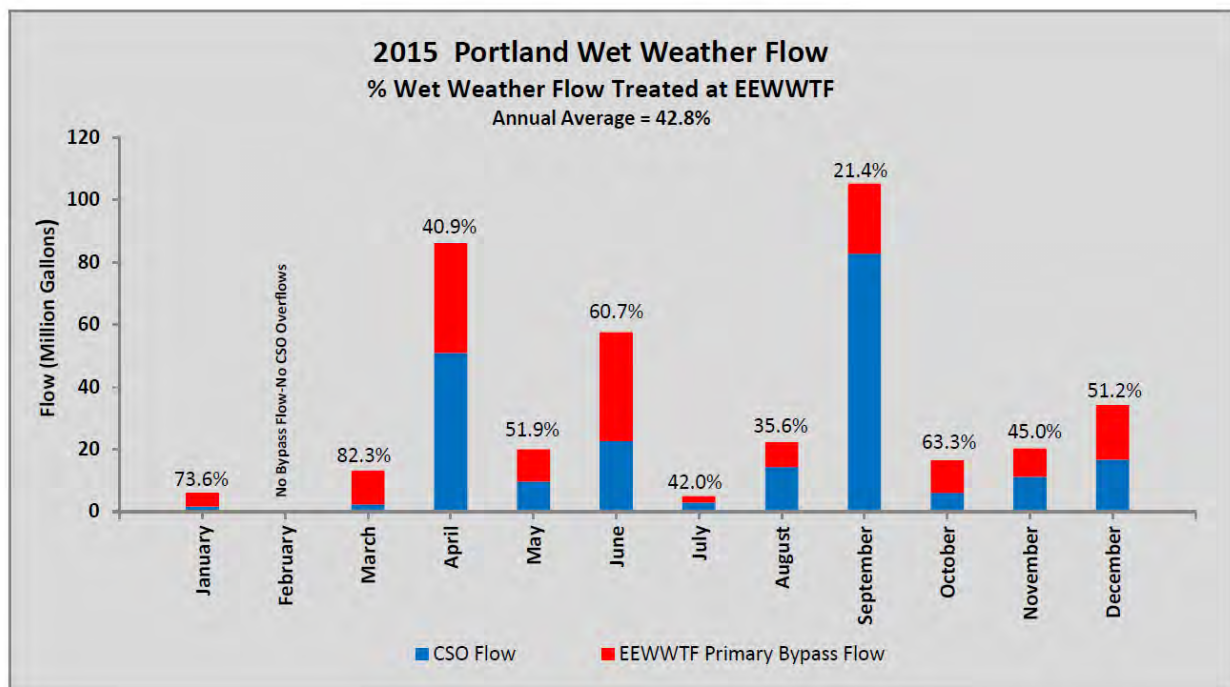
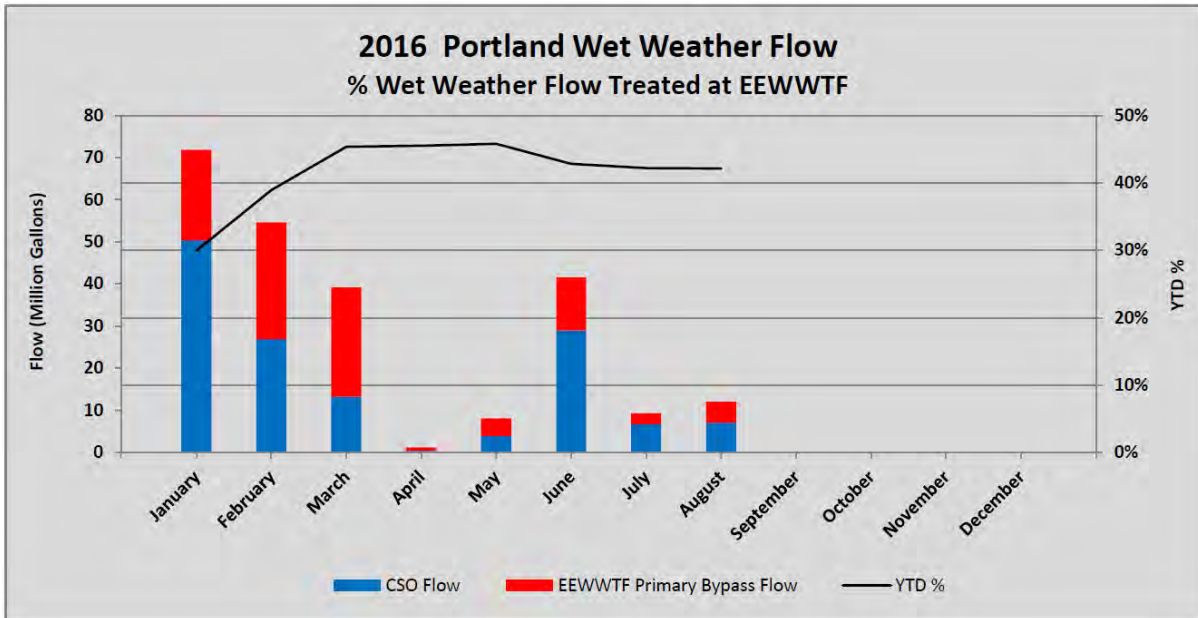
All except for two CSO's are real time monitored by either ADS Environmental or Flow Assessment since 2010. Minor evaluation of India Street Tide gate performed by Johnson and Jordan in 2013.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2017	2641 India St & NEPS Tide Gate Replacement Design	20,000
2018	2577 India St and NEPS Tide Gate Replacement	400,000
Total Cost, All Years:		420,000

Subprogram # 131**Portland CSO Mitigation**

The chart below demonstrates one of the many uses that CSO flow monitoring provides. This is a comparison of flow out the CSO versus what is treated at the East End Treatment Plant.



Subprogram # 167 Westbrook Gorham Windham Regional WWTF - Capital

Division: Wastewater - Joint Westbrook
Funding: Bonds - Wastewater

Manager: Rodriguez, Paul
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 was commissioned in 1978 and many of the existing systems have reached or exceeded the design life of the equipment. Even with the excellent level of maintenance, 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.



Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2019	992	Secondary Clarifier Improvements Design	250,000
2020	2578	Secondary Clarifier Improvements - Construction	2,300,000
PEND	2587	Aeration Upgrade or Aeration&Phosphorus (if Req'd)	6,320,000
Total Cost, All Years:			8,870,000

Previous Years on CIP: 2001 to present

Related Projects: Subprogram #416

Subprogram # 177**SCADA/Process Control - Wastewater****Division:** Wastewater - General**Manager:** Richard, Emile**Funding:** R & R - Wastewater**Priority:** Upgrade obsolete facility**Description:**

The program supports all 80 wastewater sites across the District in upgrading and replacing the exiting 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. .

Justification / Impact:

The benefit of this program 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
2017	2267 Process Control and SCADA upgrades	50,000
2017	2644 EEWWTP - SCADA System Ethernet Switch Replacement	10,000
2018	2428 Process Control and SCADA upgrades	50,000
2018	2597 SCADA Radio Modem Replacement Project - phase 3	300,000
2019	2028 Process Control and SCADA upgrades	50,000
2019	2463 EEWWTP SCADA PC Renewal Program	14,000
2019	2466 Westbrook SCADA PC Renewal Program	4,000
2019	2598 SCADA Radio Modem Replacement Project - phase 4	350,000
2020	1683 Process Control and SCADA upgrades	50,000
2020	2467 Westbrook SCADA Server Renewal Program	19,000
2020	2614 Westbrook SCADA Server Replacement Project	16,000
2020	2615 EEWWTP SCADA Server Replacement Project	16,000
2021	2670 SCADA/ Process Control- Wastewater	50,000
PEND	2369 High Flow Control Programing	25,000
Total Cost, All Years:		1,004,000

Previous Years on CIP: 2003 to present**Related Projects:** 110

Subprogram # 180**Windham - Little Falls WW System R&R****Division:** Wastewater - Windham Little Falls**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**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 (typical 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 station 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.

Budget Summary:

Budget year		Project	Budget Year Cost
2017	2422	Windham R&R	20,000
2018	2318	Windham R&R	20,000
2019	2516	Windham - Little Falls WW System R&R	20,000
2020	2695	Route 202 PS Upgrades	60,000
2020	2605	Windham - Little Falls WW System R&R	25,000
2021	2682	Windham - Little Falls WW system R&R	20,000
Total Cost, All Years:			165,000

Previous Years on CIP: 2000 to present**Related Projects:** 181**Procurement Issues:** Engineering and contracting will be via standard competitive retention procedures.

Subprogram # 181**Windham - Little Falls WW System Capital****Division:** Wastewater - Windham Little Falls**Manager:** Poulin, Charlene**Funding:** Bonds - Wastewater**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 (typical 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 station 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.

Budget Summary:

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2017	2646 Depot Street Sewer Redesign Plan	50,000
2018	2645 Depot Street Pump Station - Phase 1	425,000
2019	2647 Depot Street Pump Station - phase 2	387,500
Total Cost, All Years:		862,500

Previous Years on CIP:**Related Projects:** 180**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 let 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 which remain will be evaluated for their hydraulic value and water quality impact in the Comprehensive Water System Strategic Plan. Those which 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>
2017	2256	Water Tank Maintenance	25,000
2018	1840	Water Storage Tank Maintenance: Gorham Tank	400,000
2018	2420	Water Tank Maintenance	25,000
2019	370	Water Tank Maintenance	50,000
2019	1839	Improve Water Quality in Gowen Road Tank	50,000
2020	2604	Water Tank Maintenance	50,000
2021	2666	Water Storage Facility Maintenance & Upgrade	25,000
Total Cost, All Years:			625,000

Previous Years on CIP:

Since 2000

Related Projects:

Comprehensive Water System Strategic Plan

Procurement Issues:

RFP preparation and contract administration will be by District Staff. Maintenance and repair services will be competitively bid.

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). The recommended improvements to consolidate the zones consist of 15 projects phased over 20-year period with an estimated cost of approximately \$20 million. These improvements are designed to meet the District's services goals based around System Reliability and Redundancy, Regulatory Compliance, Water Quality, Hydraulic Sufficiency (Fire Flow), and stable affordable water rates. The consolidation of the 407 N and 407 South will meet these goals by combining the two zones into a single zone. Initial steps include construction of a new pumping station and transmission main to Zone 407N, construction of a new storage tank in Zone 407 N and other piping improvements

Justification / Impact:

There are also specific service deficiencies and water quality issues that need to be addressed in the 407 Zones. There currently exists over 150 customers that have inadequate water pressure that will be resolve as a result of the combining of the north and south 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.

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	1382	Construction of the New 407 zone Pump Station	2,000,000
2018	2658	407 Zone Tank Design and Land Acquisition	400,000
2019	497	New 407 Zone Tank Design/Construction	2,500,000
2020	498	407 Zone N - Piping Improvements	1,000,000
2022	463	407 Zone Service Area/ Supply Improvements	2,240,000
2022	508	407 Zone Reliability Improvements I	340,000
2022	465	407 Zone Reliability Improvements II	1,968,000
2022	510	407 Zone Reliability Improvements III	1,575,000
Total Cost, All Years:			12,023,000

Previous Years on CIP:

2000

Related Projects:**Procurement Issues:**

Engineering Services will be procured through Design through RFP process. BOT shall approve method (phased approach) and contract for engineering. Engineering bidding and construction services will be approved at the time of construction of Pump Station.

Subprogram # 326**Vehicle and Equipment Replacement**

Division: Allocation
Funding: R & R - Water

Manager: Paradis, Roger
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 Departmentt 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
2017	2245 Annual vehicle and equipment replacement	350,000
2018	1834 Vacuum / Valve Turner for A2 Vehicle	60,000
2018	1835 Vacuum / Valve Turner for A6 Vehicle	60,000
2018	1844 Replacement of the Water Stand-by Pumper	50,000
2018	2413 Annual vehicle and equipment replacement	230,000
2019	2503 Vehicle and Equipment Replacement	400,000
2020	2595 Annual vehicle and equipment replacement	400,000
2021	2657 Vehicle and Equipment Replacement	400,000
Total Cost, All Years:		1,950,000

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.

2017 Annual Vehicle and Equipment Replacement

VEH07100 Travel vac and truck mounted valve turner	ASSET PURCHASE	\$95,000
VEH07100 (crew box truck) AND TRL05920 (tow behind vac)	TRADE	(\$20,500)
TRL17010 Tow behind compressor	ASSET PURCHASE	\$17,500
TRL14510 (tow behind compressor)	TRADE	(\$6,500)
VEH17020 On call crew truck 4X4	ASSET PURCHASE	\$38,500
VEH09010 Truck 4X4	TRADE	(\$7,000)
VEH17030 Box crew truck	ASSET PURCHASE	\$50,000
VEH07110 Box crew truck	TRADE	(\$10,000)
VEH17040, VEH17050, VEH17060, VEH17080, VEH17090 Utility van	ASSET PURCHASE	\$105,000
VEH11060, VEH11040, VEH11050, VEH12050, VEH12060 Utility van	TRADE	(\$22,000)
VEH17070 Large meter crane truck	ASSET PURCHASE	\$65,000
VEH08050 1-Ton Dump Truck and VEH11030 Utility van	TRADE	(\$17,000)
VEH17100 Pool sedan	ASSET PURCHASE	\$26,000
VEH07030 Pool sedan	TRADE	(\$4,500)
VEH17110 Truck 2X4	ASSET PURCHASE	\$28,000
VEH02060 Truck 2X4	TRADE	(\$2,500)
TRL17020 Trailer	ASSET PURCHASE	\$15,000
Total CIP request		\$350,000



Vehicle and Equipment replacement – New 2016 Vactor to unit replaced a 2003 unit

Subprogram # 407**Cape Elizabeth Pump Stations - Capital****Division:** Wastewater - Cape Elizabeth**Manager:** Rodriguez, Paul**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility**Description:**

This program is designed to satisfy two needs; upgrading of aging pump stations throughout the Cape North and South systems, and to meet a requirement to eliminate combined sewer overflow at the Ottawa Road pump station. To do so might require increased line capacity to Family Field pump station as well as an upgrade to the Family Field pump station. Another combined sewer overflow exists at the Spurwink Avenue pump station. Some modifications to that station are likely to handle the excess flow generated during periods of very wet weather.

Justification / Impact:

The need to eliminate the CSOs at Ottawa Road and Spurwink is regulatory driven. As the operator of these facilities, the Department of Environmental Protection has put the District on a schedule to address the illegal overflows. Some elements of the system, especially in North Cape, have been in operation since the 70's are in need of upgrade. This project allows for the funding of those upgrades.

History:

Past upgrades to pump stations throughout the Cape system have been limited to pump replacements, SCADA upgrades and hardware replacements. This will continue to be the manner in which these stations get upgraded. The Combined Sewer Overflow issue at Ottawa Road pump station has been on the back burner for a number of years, while the Spurwink overflow problems became an issue during the wet years of 2005 and 2006. The Department wrote into the last license renewal for the South Cape WWTF, a schedule for the elimination of the Spurwink overflows. The District hired Wright Pierce to study the problem and come up with a plan to eliminate the overflows. The license states that the report will be completed by 12/31/07, submitted to the DEP for review and will contain "a scope of work and schedule to eliminate the discharge of untreated wastewater from the influent pump station."

Origin of the Subprogram:

Department of Environmental Protection incorporated the project in the 2006 license.

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2018	1360	Family Field Pump Station Upgrade	650,000
2019	52	Maiden Cove Pump Station Upgrade	200,000
PEND	867	Ottawa Rd. WWPS Upgrade	350,000
Total Cost, All Years:			1,200,000

Subprogram # 408 Water System Redundancy (Looping) and Upsizing Development

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:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2257	Water main looping and or upsizing for development	50,000
2018	2182	Water main looping and or upsizing for development	50,000
2019	2510	Water System Redundancy (Looping) and Upsizing dev	50,000
2020	2602	Water System Redundancy (Looping) and Upsizing dev	50,000
2021	2667	Water System Redundancy (Looping) and Upsizing dev	50,000
Total Cost, All Years:			250,000

Previous Years on CIP: none

Related Projects: 43, 111

Procurement Issues: District labor & equipment or low bid contract installation

Subprogram # 409**East End WWTF - R&R****Division:** Wastewater - Portland**Manager:** Sloan, Steve**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

Various systems and equipment will need to be replaced and/or modified as the equipment becomes obsolete due to age. This series of projects contemplates replacement of these systems and equipment through the planned use of existing R&R funds.

Justification / Impact:

The management of assets requires the continuous replacement and refurbishment of infrastructure as it ages and wears. The current facility is over twenty-five years old and many of the support systems and equipment are showing their age. Many of these replacements are required to provide continued service and to meet regulatory requirements. Other items are intended to maintain the physical infrastructure associated with the treatment facilities.

Origin of the Subprogram:

This project has been created in order to provide for a structured and planned utilization of existing R&R.

Budget Summary:

Budget year	Project	Budget Year Cost
2017	2559 EEWWTF - R&R	75,000
2017	2563 Security Improvements	25,000
2017	2584 CCT and Effluent Flow Meter Isolation - Design	25,000
2017	2622 East End Combined Heat & Power- Preliminary Design	15,000
2017	2623 Grit Removal System Rehabilitation	250,000
2017	2624 WAS Meter Replacement	45,000
2017	2625 Switchgear Rehabilitation	40,000
2017	2626 Influent Splitter Actuator/Controls Prelim Design	10,000
2018	1830 EEWWTF - Roadway & Parking Lot Paving	150,000
2018	2153 EEWWTF Effluent Flow Meter Replacement	50,000
2018	2560 EEWWTF - R&R	75,000
2018	2564 Security Improvements	25,000
2018	2583 Chlorine Contact Tank Isolation Piping Installation	300,000
2019	1614 HVAC Project - Misc.	350,000
2019	1818 EEWWTF - Plant Water System	50,000
2019	1823 Primary Clarifier Sludge Collection Rehabilitation	75,000
2019	2045 Process Gate Automation	250,000
2019	2561 Boiler Replacement - HVAC improvements	150,000
2020	2586 Replace GBT #1 with New Enclosed Unit	250,000
2020	2585 Gravity Thickener Upgrades	150,000
2021	2678 EEWWTF - R&R	75,000
Total Cost, All Years:		2,435,000

Previous Years on CIP:

2004-present

Subprogram # 411**Westbrook WW Systems R&R****Division:** Wastewater - Westbrook**Manager:** Poulin, Charlene**Funding:** R & R - Wastewater**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:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2266	Westbrook WW Systems R&R	10,000
2018	2322	Westbrook Pump Station R&R	10,000
2019	2518	Westbrook WW Systems	10,000
2020	2608	Westbrook WW Systems R&R	10,000
2021	2680	Westbrook WW Systems R&R	10,000
Total Cost, All Years:			50,000

Subprogram # 416**Westbrook/Gorham/Windham WWTF R&R****Division:** Wastewater - Joint Westbrook**Manager:** Waterman, Robert**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

Various systems and equipment will need to be replaced and/or modified as the equipment becomes obsolete due to age. An item has also been included to revise the O&M Manual to reflect these and other changes in the operating systems of the plant over the last 20+ years.

Justification / Impact:

The management of assets requires the continuous replacement and refurbishment of infrastructure as it ages and wears. The current facility is over twenty years old and many of the support systems and equipment are showing their age. Many of these replacements are required to provide continued service and to meet regulatory requirements. Other items are intended to maintain the physical infrastructure associated with the treatment facilities.

History:

This project was created to provide for a planned use of the R&R funds in meeting the needs of the Westbrook/Gorham WWTF.

Origin of the Subprogram:

This project has been created in order to provide for a structured and planned utilization of existing R&R.

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2265	Westbrook/Gorham /Windham WWTF R&R	50,000
2017	2648	Westbrook Gorham Windham WWTF- Security upgrades	50,000
2018	2426	Westbrook/Gorham /Windham WWTF R&R	50,000
2018	2579	Access Road and Parking Lot Resurfacing	75,000
2019	2519	Routine Renewal and Replacement	50,000
2020	2607	Westbrook/Gorham /Windham WWTF R&R	50,000
2021	2681	Westbrook/Gorham Windham WWTF R&R	50,000
Total Cost, All Years:			375,000

**Westbrook Gorham Windham WWTF**

Subprogram # 418**Cape Elizabeth WWTF - Capital****Division:** Wastewater - Cape Elizabeth**Manager:** Firmin, Scott**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility**Description:**

Provide for capital plant upgrades required to continue to meet regulatory and operational requirements.

Justification / Impact:

This program focuses on timely upgrading of the treatment facility which has been on line for 30 years without any substantial modifications. Control system improvements will allow for off-hour monitoring and response as well as assurances that regulatory requirements are consistently met.

History:

The Maine Department of Environmental Protection wrote into the facility's most recent license, a requirement relating to the elimination of bypassing of flows during periods of wet weather. High flow management upgrades were completed in 2012

**Origin of the Subprogram:**

Established to address regulatory requirements and upgrade needs to maintain system reliability and address components that are reaching the end of their service life.

Budget Summary:

<u>Budget year</u>		<u>Project</u>	<u>Budget Year Cost</u>
2017	2570	Headworks Heating and Ventilation Design	25,000
2018	1911	Cape Elizabeth Treatment Plant - Ph 2 improvements	750,000
2018	2394	Cape Elizabeth Effluent Sampling/Dechlorination	450,000
2018	2581	Aeration and Mixing Control Upgrade	50,000
2018	2571	Headworks Heating and Ventilation Construction	250,000
Total Cost, All Years:			1,525,000

Subprogram # 420**Portland WW Pump Station Capital Upgrade****Division:** Wastewater - Portland**Manager:** Rodriguez, Paul**Funding:** Bonds - Wastewater**Priority:** Upgrade obsolete facility**Description:**

This project will allow for the complete upgrade of the larger 38 year old Portland pump stations to ensure reliable operation at the required level of service for each of the stations. The projects include a revised approach to complete the required upgrades under a single project rather than a series of smaller projects spread over a number of years. The upgrades will provide a complete upgrade to the stations, including the replacement of retired screenings equipment, pumps, support systems, and controls.

Justification / Impact:

This upgrade will ensure that equipment operates at required levels of service and will allow for the continued preventative maintenance of the critical pump stations. The upgrade is also intended to improve remote control capabilities of the pump stations allowing for increased remote functionality.

History:

These projects are based upon the original Portland Pump Station CPE. Some additions to the scope (inclusion of additional VFDs for all pumps to allow for increase redundancy and reliability) have been made based upon a more detailed analysis, however, these projects are revision to the approach originally identified. Rather than completing a series of 3 or 4 smaller projects at each station, the entire project will be completed in a single contract at each station. This should result in increased efficiencies associated with implementation and management of the projects.

Origin of the Subprogram:**Budget Summary:**

Budget year	Project	Budget Year Cost
2017	2424 Fore River Pump Station upgrades - phases 3,4,5	2,500,000
2017	2532 Northeast Pump Station Odor Control	550,000
Total Cost, All Years:		3,050,000

Previous Years on CIP:

None

2017 Northeast Pump Station Odor Control – This is the largest wastewater pump station in the system (50 MGD). Project #2532 proposes to install an odor control scrubber and stack similar to India Street Pump station. This will assist in the remediation of odors.



Subprogram # 423**Peaks Island R&R****Division:** Wastewater - Peaks**Manager:** Waterman, Robert**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 stationst.

Justification / Impact:

Physical assests 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.

Budget Summary:

Budget year		Project	Budget Year Cost
2017	2323	Peaks Island R&R	20,000
2017	2348	Peaks WWTF Decant Pump Replacement/Refurbishment	125,000
2017	2621	Peaks WWTF Loading Capacity Evaluation	10,000
2017	2636	Catch Basin Repairs	30,000
2018	2324	Peaks Island R&R	20,000
2018	2344	Peaks WWTF Compressed Air System Replacement	35,000
2019	2520	Peaks Island R&R	20,000
2021	2576	SBR Equipment Replacement	250,000
2022	2635	Torrington Point PS Upgrades	80,000
Total Cost, All Years:			600,000

Previous Years on CIP: 2007 -present



Peaks Island Treatment Plant – Built 1994

Subprogram # 424**Cape Elizabeth WWTF - R&R****Division:** Wastewater - Cape Elizabeth**Manager:** Waterman, Robert**Funding:** R & R - Wastewater**Priority:** Routine replacement**Description:**

This account will provide for the timely routine replacement of equipment at the Cape South Treatment Plant. This facility was brought on line in 1988. During that time, the facility has not undergone any improvement projects. The polymer system has reached the end of its usefulness and will need upgrading.

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. Planned upgrades will ultimately lead to improved automation at the facility, allowing for the initiation of process changes from a remote location.

History:

This program has been used at most PWD wastewater systems in the past.

Budget Summary:

Budget year		Project	Budget Year Cost
2017	2262	Cape Elizabeth WWTF - R&R	20,000
2017	2649	Cape Elizabeth - Security upgrades	30,000
2018	2055	WAS/RAS Piping Replacement at CEWWTF	50,000
2018	2389	Replacement of Heating Boiler at the S.Cape WWTF	50,000
2019	2514	Cape Elizabeth WWTF - R&R	50,000
2019	2568	Rotary Drum Thickener Rehabilitation	20,000
2020	2611	Cape Elizabeth WWTF - R&R	50,000
2021	2674	Cape Elizabeth WWTF - R&R	20,000
Total Cost, All Years:			290,000

Subprogram # 425 Watershed Security and Safety - Rt 35/237 Redesign

Division: Water - General
Funding: Land Reserve

Manager: Johnson, Gordon
Priority: Security of facilities

Description:

Route 35 between Pond Road and the railroad overpass along with the intersection of 237 and 35 are currently being redesigned by MDOT. The District raised concerns regarding the proximity and risk associated with this stretch of highway being so close to the Intakes of the water supply. The District participated in a feasibility study to examine alternative designs to simply rehabilitating the existing section of roadway at its present location. MDOT provided alternatives and the District and MDOT decided that the realignment of 237 and 35 provides the most cost effective for vehicle safety and lake protection.

Justification / Impact:

This will reduce the probability of an accident that could contaminate Sebago Lake.

Budget Summary:

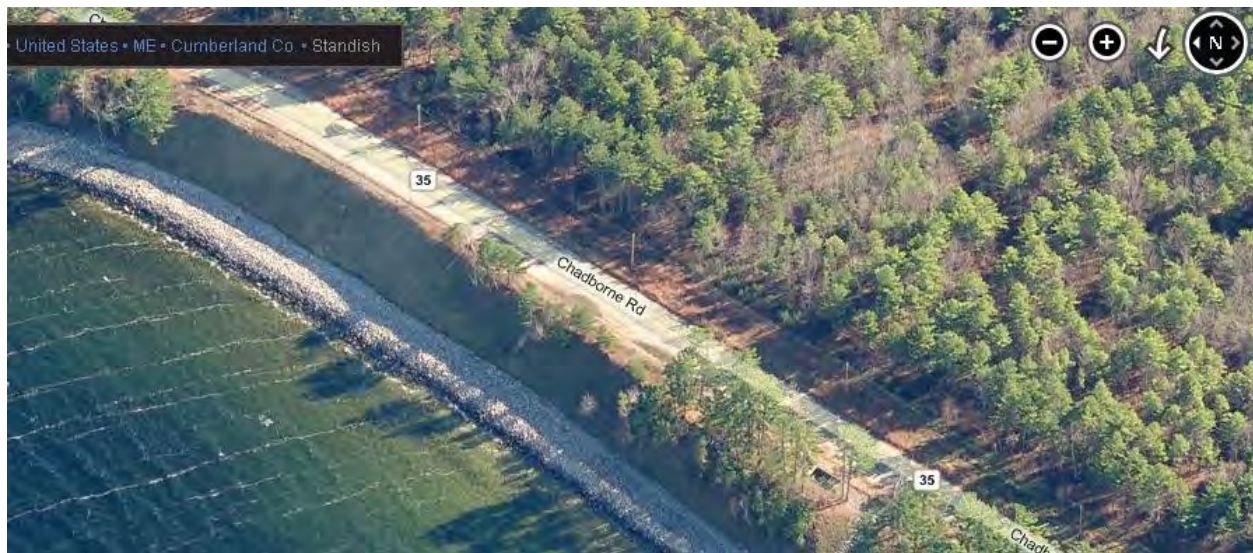
Budget year	Project	Budget Year Cost
2017	1668 Route 35/237 relocation	250,000
Total Cost, All Years:		250,000

Previous Years on CIP:

None

Procurement Issues:

Collaborative Effort with Maine DOT



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.

Significant Financial Policies

Accounting, Auditing, and Financial Reporting:

Basis of Accounting (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). The District uses accrual accounting for financial reporting and budget preparation (see Budgeting and Financial Planning section for difference between GAAP and Budget).

Fund Structure (Charter)

As required by the District's charter, seven-supporting enterprise funds will be maintained – one fund for water service and six 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 three communities. Related costs are recorded in the appropriate fund.

Costs that benefits more than one funds 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 (Charter)

Annual audit shall be conducted each year by the June 30. The Board of Trustees shall appoint auditor.

2016-17 Policy Highlights

Falmouth Proprietary Fund: At the request of the town of Falmouth, the District financed the renovation of the Mill Creek Pump Station and will assess the town the debt service costs. A separate proprietary fund was established.

Water Revenue/Financing Approvals:

The District was granted a waiver from certain regulatory oversight by the Maine Public Utilities Commission. Starting in 2016, the District's Board is able to authorize rate adjustments and capital financing transaction without the need to also get approval by the Maine Public Utilities Commission. The Board adopted internal policies including policies for rate-making, capital reserve and financial approval processes.

Pension: New GASB Accounting rules established a difference between the GAAP expense calculation and amount contributed to the pension plans, which is included in the budget (see Basis of Budgeting). The change was effective in 2015. The actuarial determined contribution amount to contribute to the pension plan is almost to be \$1.6 million, almost \$400,000 greater than the prior year.

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 (General - Board)

Water rates are established to provide sufficient revenues to fully support the operation of the water fund's activities. In 1994 and 2006, 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. The next cost of service study was executed in 2016. Those results were still pending at the time of print. 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 2017 budget assumes 1% of the proposed 1.67% 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 (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, 2016.

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 in 2013 to reduce the bond weight and increase the international equities and alternative weight.

	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 Gorham and Windham wastewater funds are 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 are expected to meet the target by the end of the 2017.

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 3%, respectively, of gross fixed asset costs. The Water fund meets its goal. The Cape Elizabeth, Cumberland and Portland wastewater funds are below the goal. Also, the Water fund has a target balance of 15% of the annual net operating budget for a watershed land reserve. Currently that reserve is at 11.4%.

The 2010 – 2021 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 three 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 2017 Budget assume the ADC will be approximately \$1.6 million.

Risk Management Policies

Maine Tort Claims Act (State Law)

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 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. Board adopted change to limit insurance on claims covered by the Tort Claim Act to the Act 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 participate actively 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 the 2017 Budget and the dollars allocated, are in the following pages.

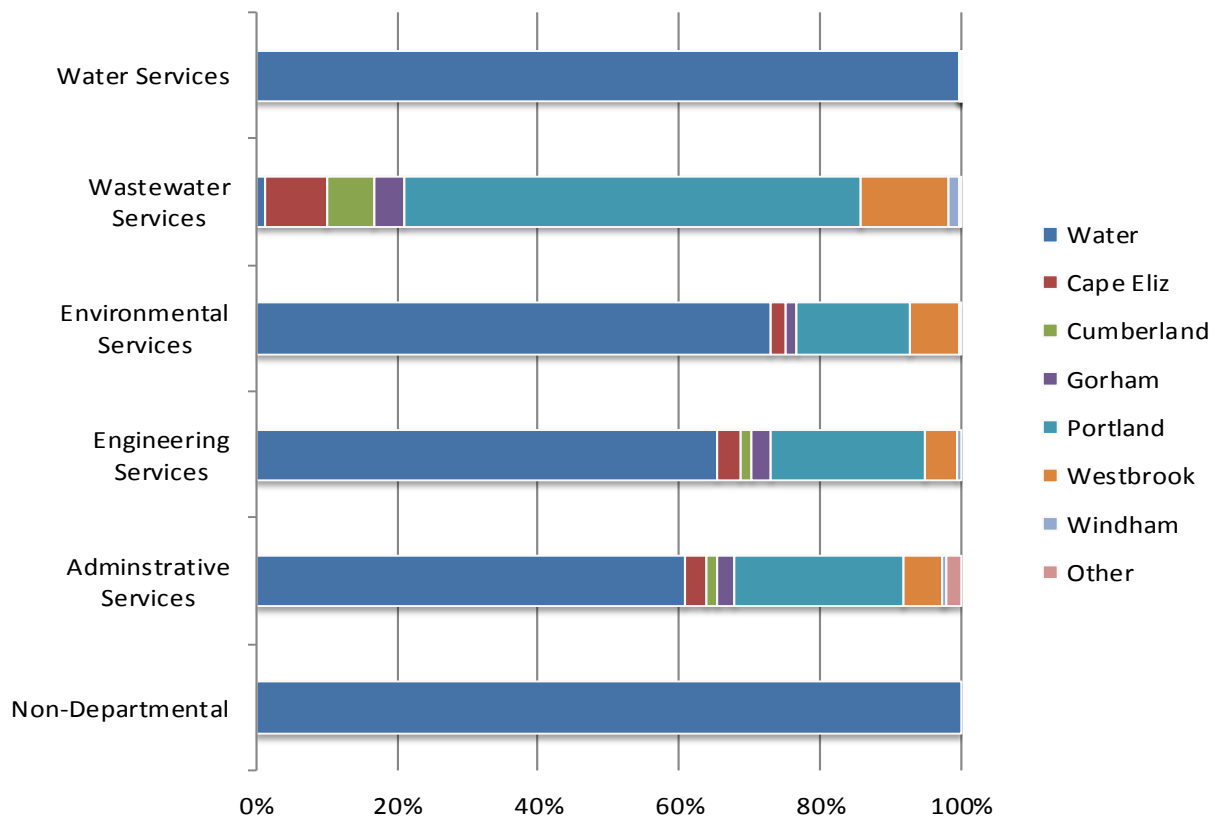
Each financial transaction is assigned a cost center number when the transaction is recorded in the financial system. The fund number indicates whether it is a 'direct' charge to the fund or an 'indirect' charge that will be allocated. Each department's costs are broken down into the fund category in Departmental Expense section (see pages 139-234). All costs ultimately are assigned to the one of the seven enterprise funds or three contract 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 Contracted 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 99.0% of the costs of the Water Services department are assigned to the Water Fund and 98.6% of the Wastewater Services department costs go to the Wastewater funds. The expenditures of the remaining departments assign between 60.9% and 73.1% 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 Services	8,280,824	99.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wastewater Services	9,518,744	1.4%	8.6%	6.9%	4.3%	64.6%	12.7%	1.4%	0.2%
Environmental Services	1,947,919	73.1%	2.2%	0.0%	1.4%	16.2%	7.0%	0.2%	0.0%
Engineering Services	4,104,732	65.4%	3.5%	1.5%	2.8%	21.9%	4.4%	0.5%	0.0%
Administration	5,459,534	60.9%	3.1%	1.6%	2.4%	23.8%	5.5%	0.7%	2.1%
<u>Non-Departmental</u>	<u>273,415</u>	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Department Expense	29,585,168								
<u>(less) Trans Expense</u>	<u>(814,406)</u>								
	28,770,762								



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)

2017 Allocation. %:

-	General F1	Billing F1	Mtr Read F1	Pymts H1
Water	67.32%	67.54%	68.90%	65.87%
Cape Eliz	2.16%	2.05%	2.05%	2.16%
Cumberland	1.06%	1.01%	1.01%	1.06%
Falmouth	0.36%	1.72%	0.00%	1.81%
Gorham	1.65%	1.57%	1.57%	1.65%
Portland	15.89%	15.11%	15.11%	15.89%
Scarborough	0.00%	0.00%	0.36%	0.00%
So Portland	7.31%	6.95%	6.95%	7.31%
Westbrook	4.20%	4.00%	4.00%	4.20%
Windham	0.05%	0.05%	0.05%	0.05%
	100.00%	100.00%	100.00%	100.00%

2016 Allocation. %:

-	General F1	Billing F1	Mtr Read F1	Pymts H1
Water	67.03%	67.25%	68.62%	65.27%
Cape Eliz	2.18%	2.07%	2.07%	2.18%
Cumberland	1.00%	1.01%	1.01%	1.00%
Falmouth	0.36%	1.73%	0.00%	1.82%
Gorham	1.62%	1.54%	1.54%	1.62%
Portland	16.08%	15.30%	15.30%	16.08%
Scarborough	0.00%	0.00%	0.36%	0.00%
So Portland	7.39%	7.03%	7.03%	7.39%
Westbrook	4.23%	4.02%	4.02%	4.23%
Windham	0.05%	0.05%	0.05%	0.05%
	100.00%	100.00%	100.00%	100.00%

Dollars Allocation. :

-	General F1	Billing F1	Mtr Read F1	Pymts H1
Water	\$600,422	\$194,846	\$59,138	\$113,790
Cape Eliz	19,264	5,914	1,759	3,731
Cumberland	9,454	2,913	867	1,831
Falmouth	3,211	4,962	0	3,127
Gorham	14,716	4,529	1,348	2,850
Portland	141,722	43,591	12,970	27,450
Scarborough	0	0	309	0
So Portland	65,197	20,050	5,965	12,628
Westbrook	37,460	11,541	3,432	7,256
Windham	446	144	43	87
	\$891,892	\$288,490	\$85,831	\$172,750

Dollars Allocation. :

-	General F1	Billing F1	Mtr Read F1	Pymts H1
Water	\$690,650	\$206,596	\$51,446	\$109,185
Cape Eliz	22,462	6,359	1,552	3,630
Cumberland	10,921	3,103	757	1,765
Falmouth	3,709	5,315	0	3,031
Gorham	16,692	4,731	1,154	2,698
Portland	165,682	47,002	11,471	26,776
Scarborough	0	0	270	0
So Portland	76,144	21,596	5,271	12,306
Westbrook	43,585	12,350	3,015	7,044
Windham	515	154	37	81
	\$1,030,360	\$307,206	\$74,973	\$166,516

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	C1 – Facilities Services
B3 – East End (Portland) Wastewater Treatment	E3 – New Mains & Construction
B4 – Westbrook Regional (including Gorham & Windham), Cape Elizabeth, Peaks Island (Portland) Wastewater Treatment	E7 – Instrumentation (general wastewater)
	L6 – Laboratory
	L9 – Water/Wastewater Systems

Note: Org Units B3 & B4 were merged into B3 starting in 2017.

2017 Allocation %:	B1	B3	B4	C1	E7	L6	L9
Water	0.00%	0.00%	0.00%	78.56%	0.00%	35.65%	0.00%
Cape Elizabeth	10.21%	5.64%	0.00%	2.93%	10.21%	5.53%	10.21%
Cumberland	3.70%	0.00%	0.00%	0.58%	3.70%	0.00%	3.70%
Gorham	5.29%	2.83%	0.00%	1.07%	5.29%	3.27%	5.29%
Portland	65.52%	76.90%	0.00%	15.04%	65.52%	37.78%	65.52%
Westbrook	13.42%	14.07%	0.00%	1.78%	13.42%	17.28%	13.42%
Windham	1.86%	0.56%	0.00%	0.04%	1.86%	0.49%	1.86%
	100.00%	100.00%	0.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	B4	C1	E7	L6	L9
Water	\$0	\$0	\$0	\$134,107	\$0	\$80,417	\$0
Cape Elizabeth	19,145	24,615	0	5,002	11,271	12,474	52,342
Cumberland	6,938	0	0	990	4,084	0	18,968
Gorham	9,919	12,351	0	1,827	5,840	7,376	27,120
Portland	122,859	335,625	0	25,674	72,327	85,222	335,894
Westbrook	25,164	61,408	0	3,039	14,814	38,979	68,799
Windham	3,489	2,445	0	68	2,053	1,106	9,536
	\$187,514	\$436,444	\$0	\$170,707	\$110,389	\$225,574	\$512,659
2016 Allocation %:	B1	B3	B4	C1	E7	L6	L9
Water	0.00%	0.00%	0.00%	76.80%	0.00%	29.39%	0.00%
Cape Elizabeth	10.40%	2.90%	16.30%	2.96%	10.40%	5.69%	10.40%
Cumberland	3.66%	0.00%	0.00%	0.73%	3.66%	0.00%	3.66%
Gorham	5.24%	0.74%	9.64%	0.96%	5.24%	2.89%	5.24%
Portland	64.48%	92.15%	18.49%	16.67%	64.48%	45.83%	64.48%
Westbrook	14.45%	4.06%	53.64%	1.84%	14.45%	15.74%	14.45%
Windham	1.77%	0.15%	1.93%	0.04%	1.77%	0.46%	1.77%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	B4	C1	E7	L6	L9
Water	\$0	\$0	\$0	\$123,156	\$0	\$71,813	\$0
Cape Elizabeth	18,543	7,910	20,084	4,747	11,289	13,903	51,475
Cumberland	6,526	0	0	1,171	3,973	0	18,115
Gorham	9,343	2,018	11,878	1,539	5,688	7,062	25,935
Portland	114,968	251,353	22,782	26,732	69,992	111,983	319,144
Westbrook	25,764	11,074	66,093	2,951	15,685	38,460	71,520
Windham	3,157	274	1,326	30	1,170	745	6,269
	\$178,301	\$272,765	\$123,215	\$160,360	\$108,548	\$244,344	\$494,951

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

G1 – Information Service

H1 – Financial Services

I1 – Employee Services

J1 – General Manager's

Office

2017 Allocation %:	E7	G1	H1	I1	J1
Water	55.55%	55.55%	55.55%	55.55%	55.55%
Cape Elizabeth	3.57%	3.57%	3.57%	3.57%	3.57%
Cumberland	1.96%	1.96%	1.96%	1.96%	1.96%
Gorham	2.82%	2.82%	2.82%	2.82%	2.82%
Portland	28.70%	28.70%	28.70%	28.70%	28.70%
Westbrook	6.48%	6.48%	6.48%	6.48%	6.48%
Windham	0.92%	0.92%	0.92%	0.92%	0.92%
	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$103,150	\$578,163	\$395,492	\$264,041	\$984,751
Cape Elizabeth	6,629	37,150	25,417	16,989	63,286
Cumberland	3,640	20,400	13,954	9,316	34,745
Gorham	5,236	29,351	20,077	13,404	49,991
Portland	53,293	298,709	204,332	136,417	508,773
Westbrook	12,033	67,444	46,135	30,801	114,873
Windham	1,706	9,575	6,550	4,373	16,310
	\$185,689	\$1,040,798	\$711,957	\$475,321	\$1,772,729
2016 Allocation %:	E7	G1	H1	I1	J1
Water	54.17%	55.17%	55.17%	55.17%	55.17%
Cape Elizabeth	3.69%	3.69%	3.69%	3.69%	3.69%
Cumberland	1.96%	1.96%	1.96%	1.96%	1.96%
Gorham	2.89%	2.89%	2.89%	2.89%	2.89%
Portland	28.74%	28.74%	28.74%	28.74%	28.74%
Westbrook	6.65%	6.65%	6.65%	6.65%	6.65%
Windham	0.91%	0.91%	0.91%	0.91%	0.91%
	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$104,984	\$564,731	\$387,954	\$252,684	\$860,459
Cape Elizabeth	7,022	37,772	25,948	16,901	57,551
Cumberland	3,711	19,961	13,712	8,931	30,413
Gorham	5,499	29,583	20,322	13,236	45,074
Portland	54,690	294,188	202,099	131,632	448,244
Westbrook	12,654	68,071	46,763	30,458	103,717
Windham	1,731	9,313	6,399	4,167	14,193
	\$190,291	\$1,023,619	\$703,197	\$458,009	\$1,559,651

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

2017 Allocation %:

	All	WW
Water	63.66%	0.00%
Cape Elizabeth	3.47%	9.55%
Cumberland	1.69%	4.64%
Falmouth	0.00%	0.00%
Gorham	3.83%	10.55%
Portland	22.05%	60.66%
Westbrook	4.65%	12.80%
Windham	0.65%	1.80%
	100.00%	100.00%

2016 Allocation %:

	All	WW
Water	63.23%	0.00%
Cape Elizabeth	3.53%	9.61%
Cumberland	1.73%	4.70%
Falmouth	0.00%	0.00%
Gorham	3.92%	10.66%
Portland	22.39%	60.89%
Westbrook	4.54%	12.34%
Windham	0.66%	1.80%
	100.00%	100.00%

Dollars Allocated:

	All	WW
Water	\$528,689	\$0
Cape Elizabeth	28,818	23,476
Cumberland	14,035	11,406
Falmouth	0	0
Gorham	31,808	25,935
Portland	183,123	149,119
Westbrook	38,618	31,466
Windham	5,398	4,425
	\$830,489	\$245,827

Dollars Allocated:

	All	WW
Water	\$536,814	\$0
Cape Elizabeth	29,969	23,119
Cumberland	14,687	11,307
Falmouth	0	0
Gorham	33,280	25,645
Portland	190,088	146,482
Westbrook	38,544	29,686
Windham	5,604	4,329
	\$848,986	\$240,568

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)

2017 Allocation %:

	A6
Water	65.49%
Cape Elizabeth	1.77%
Cumberland	0.91%
Gorham	1.54%
Portland	17.33%
Scarborough	1.08%
South Portland	7.65%
Westbrook	4.15%
Windham	0.08%
	100.00%

2016 Allocation %:

	A6
Water	65.52%
Cape Elizabeth	1.77%
Cumberland	0.89%
Gorham	1.50%
Portland	17.39%
Scarborough	1.09%
South Portland	7.63%
Westbrook	4.13%
Windham	0.08%
	100.00%

Dollars Allocated:

	A6
Water	\$123,006
Cape Elizabeth	3,324
Cumberland	1,709
Gorham	2,892
Portland	32,550
Scarborough	2,028
South Portland	14,369
Westbrook	7,795
Windham	151
	\$187,824

Dollars Allocated:

	A6
Water	\$129,755
Cape Elizabeth	3,505
Cumberland	1,763
Gorham	2,971
Portland	34,439
Scarborough	2,159
South Portland	15,110
Westbrook	8,179
Windham	158
	\$198,039

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.

Sub-Groups Using Method:

- F1 – Customer Service (control/dispatch center)
- L6 – Laboratory (general wastewater)

2017 Allocation %:

	F1	L6
Water	95.00%	0.00%
Cape Elizabeth	1.67%	10.20%
Cumberland	0.94%	0.00%
Gorham	0.97%	4.60%
Portland	1.01%	61.67%
Westbrook	0.17%	22.60%
Windham	0.24%	0.93%
	100.00%	100.00%

Dollars Allocated:

	F1	L6
Water	\$189,190	\$0
Cape Elizabeth	3,326	28,101
Cumberland	1,872	0
Gorham	1,932	12,673
Portland	2,011	169,900
Westbrook	339	62,263
Windham	477	2,562
	\$199,147	\$275,499

2016 Allocation %:

	F1	L6
Water	95.00%	0.00%
Cape Elizabeth	1.77%	9.30%
Cumberland	0.92%	0.00%
Gorham	0.79%	3.10%
Portland	1.08%	66.93%
Westbrook	0.18%	20.10%
Windham	0.26%	0.57%
	100.00%	100.00%

Dollars Allocated:

	F1	L6
Water	\$152,981	\$0
Cape Elizabeth	2,850	26,253
Cumberland	1,482	0
Gorham	1,272	8,751
Portland	1,739	188,935
Westbrook	290	56,740
Windham	419	1,609
	\$161,033	\$282,288

Square Footage Utilized

The costs of the Douglass Street administrative facility are charged to each area based of the square footage they occupy. Office space is charged out at a higher rate (five times higher) than warehouse space. The dollars are allocated to the sub-groups.

Overall costs increased \$35,449 (4.6%). Higher costs for power, maintenance services and materials were somewhat offset by lower heating fuel costs.

2017 Allocation %:

Water Operations	
A1 - Water Administration	2.65%
A2 - Transmission/Distribution	5.29%
A6 - Utility Services	<u>1.40%</u>
	9.34%
Environmental Services	
A5 - Water Resources	<u>0.83%</u>
	0.83%
Wastewater Operations	
B1 - WW Administration	0.83%
L9 - Water/WW Systems	<u>4.56%</u>
	5.39%
Engineering Services	
C1 - Facility Services	23.34%
E2 - Planning & Design	14.98%
E7 - Instrumentation	<u>1.36%</u>
	39.68%
Administration	
F1 - Customer Service	12.71%
G1 - Information Services	5.67%
H1 - Financial Services	8.55%
I1 - Employee Services	3.92%
J1 - BOT & Senior Management	<u>13.91%</u>
	44.76%
	100.00%

Dollars Allocated:

	\$
Water Operations	\$75,469
Environmental Services	6,707
Wastewater Operations	43,552
Engineering Services	320,620
Administration	<u>361,668</u>
	\$808,015

2016 Allocation %:

Water Operations	
A1 - Water Administration	2.65%
A2 - Transmission/Distribution	5.29%
A6 - Utility Services	<u>1.40%</u>
	9.34%
Environmental Services	
A5 - Water Resources	<u>0.83%</u>
	0.83%
Wastewater Operations	
B1 - WW Administration	0.83%
L9 - Water/WW Systems	<u>4.56%</u>
	5.39%
Engineering Services	
C1 - Facility Services	23.34%
E2 - Planning & Design	14.98%
E7 - Instrumentation	<u>1.36%</u>
	39.68%
Administration	
F1 - Customer Service	12.01%
G1 - Information Services	6.37%
H1 - Financial Services	8.55%
I1 - Employee Services	3.92%
J1 - BOT & Senior Management	<u>13.91%</u>
	44.76%
	100.00%

Dollars Allocated:

	\$
Water Operations	\$72,158
Environmental Services	6,412
Wastewater Operations	41,641
Engineering Services	306,554
Administration	<u>345,801</u>
	\$772,566

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, cost remained flat compared to 2016.

Vehicle Type	Rate	Active Hours	Stand-by Hours	Total Hours
Backhoe/Loader <19,501 GVW	\$39.10	2,632		2,632
Backhoe/Loader >=19,500 GVW	\$45.03	265		265
Compressor	\$23.69	2,967		2,967
Dump Truck < 15,000 GVW	\$9.99	476	1,604	2,080
Dump Truck >= 40,000 GVW	\$17.14	3,502	2,738	6,240
Dump Truck 15,001- 40,000 GVW	\$12.84	1,851	6,469	8,320
Generator/Load Bank	\$40.29	459		459
Misc. Const. Equipment - Forklift, etc.	\$27.26	350		350
Misc. Trailed Equipment - Cement Mixer, Jet Machine, I	\$17.78	398		398
Pick-up Truck/SUV - Heavy - 7,501-10,000 GVW	\$4.85	7,722	6,838	14,560
Pick-up Truck/SUV - Light - < 6,000 GVW	\$3.71	2,095	2,065	4,160
Pick-up Truck/SUV - Medium - 6,001-7,500 GVW	\$3.99	14,395	19,085	33,480
Special Purpose - C - Crane, Sludge, etc.	\$53.32	95		95
Special Purpose - D - Jetvac, etc.	\$71.09	1,266		1,266
Utility Truck 10,001 - 14,000 GVW	\$5.71	4,269	1,971	6,240
Utility Truck 14,001 - 16,000 GVW	\$6.27	5,240	3,080	8,320
Utility Truck 16,001 - 19,500 GVW	\$6.85	5,362	5,038	10,400
Utility Truck 6,001 - 10,000 GVW	\$3.99	9,312	5,248	14,560
Van < 6,000 GVW	\$3.71	3,150	3,090	6,240
Van 6,001-7,500 GVW	\$3.99	1,288	792	2,080
Van 7,501-10,000 GVW	\$4.85	26,242	10,058	36,300
Total Hours		93,336	68,076	161,412

Sub-Group	2016 Budget	2017 Budget	\$ - Difference	% - Difference
A1 - Water Administration	\$0	\$0	\$0	n/a
A2 - Transmission/Distribution	567,915	564,707	(3,208)	-0.6%
A3 - Water Treatment	38,123	36,630	(1,493)	-3.9%
A5 - Water Resources	37,886	37,936	50	0.1%
A6 - Utility Services	149,954	159,102	9,148	6.1%
B1 - WW Administration	500	0	(500)	-100.0%
B3 - Portland (East End) WWTF	34,452	63,511	29,059	84.3%
B4 - Westbrook/Cape/Peaks WWTPs	28,041	0	(28,041)	-100.0%
C1 - Facility Services	51,035	38,829	(12,206)	-23.9%
E2 - Planning & Design	25,748	22,961	(2,787)	-10.8%
E7 - Instrumentation	23,945	24,338	393	1.6%
F1 - Customer Service	16,346	16,617	271	1.7%
I1 - Employee Services	0	0	0	n/a
J1 - BOT & Senior Management	0	0	0	n/a
L6 - Water/WW Laboratory	1,257	1,846	589	46.9%
L9 - Water/WW Systems	221,723	227,929	6,206	2.8%
	\$1,196,925	\$1,194,406	(\$2,519)	-0.2%

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. In addition, one pump station handles the combined waste from all three communities. The budget for this area in 2017 is \$1,147,228 (up \$12,687 or 1.1%).

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. This area's budget is \$61,656 in 2016, up 9.6% (\$5,429) mostly due to efforts with odor control at pump stations.

	Gorham	Westbrook	Windham		Gorham	Windham
2013	13.00%	84.70%	2.30%	2013	15.00%	85.00%
2014	14.00%	83.70%	2.30%	2014	15.00%	85.00%
2015	13.00%	84.70%	2.30%	2015	20.00%	80.00%
2016	15.00%	82.00%	3.00%	2016	22.50%	77.50%
2017	16.50%	80.25%	3.25%	2017	21.50%	78.50%

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 \$172,662 in 2017 (an increase of 5.9%).

Falmouth – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement. This cost is budgeted to be \$455,159 in 2017 (25.0% increase). The increase primarily due to debt service costs related to work at the Mill Creek pump station and the related force main.

	Cape Eliz	So Portland		Cumberland	Falmouth	Millcreek PS
2013	6.7%	93.3%	2013	27.0%	73.0%	0.0%
2014	6.7%	93.3%	2014	24.0%	76.0%	40.8%
2015	6.7%	93.3%	2015	24.0%	76.0%	40.8%
2016	6.7%	93.3%	2016	24.0%	76.0%	40.8%
2017	6.7%	93.3%	2017	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%
Woodlaw n Ave PS (Tow 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.

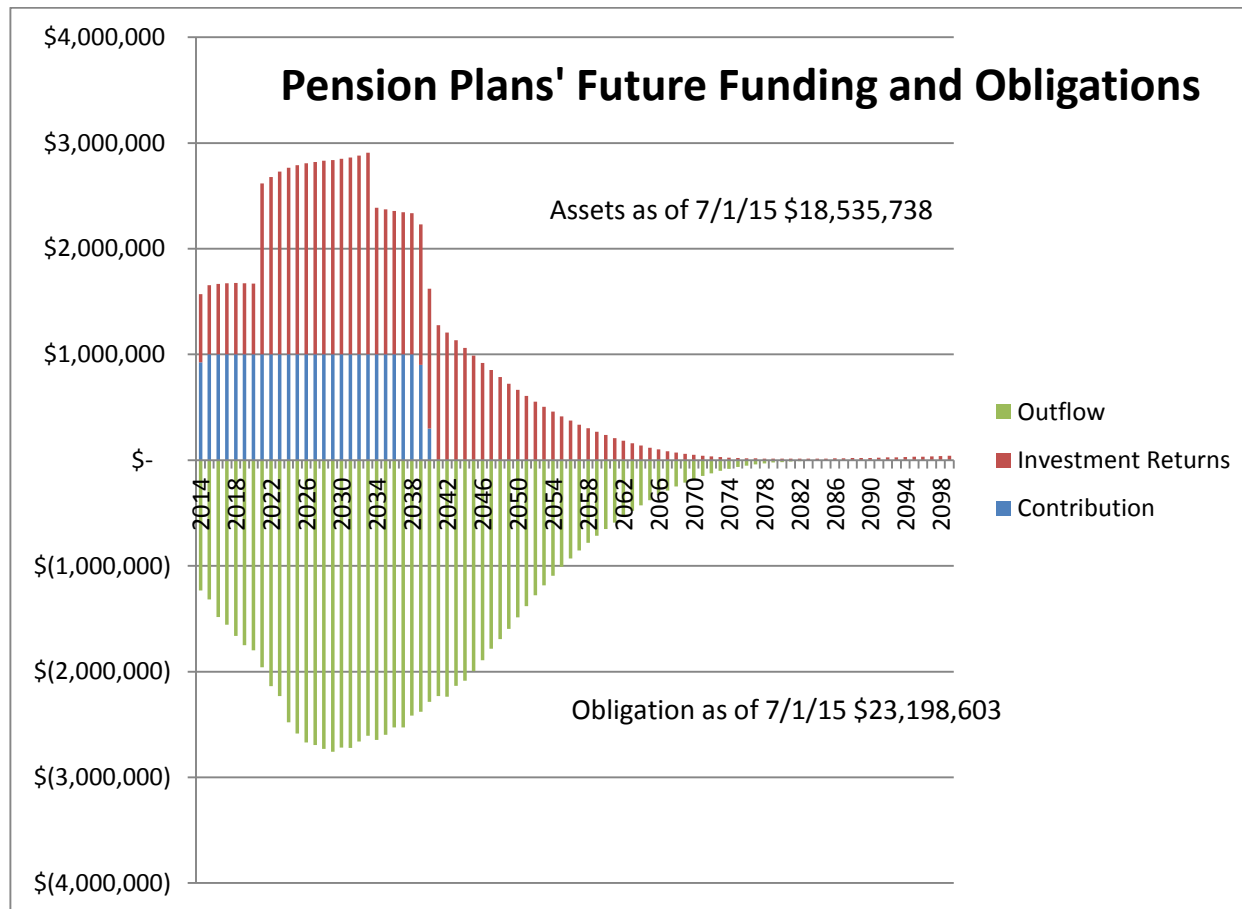
Falmouth – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement.

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

Defined Pension Plan's Funding Policy

The Board adopted a funding policy for the District's Pension Obligation. The District has two plans – a non-bargaining and bargaining unit plan. The plans are now closed to new employees. The graph below indicates the estimated pension payment outflows, projected investment returns and annual contributions. The funding policy was adopted in anticipation of the new accounting rule (GASB 68), which went into effect in 2015. The proposed budget recommends contributing the full Actuarial Determined Contribution of \$ 1,583,014.



Introduction

The appendix contains the following:

- Community Connections
- 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

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.



\$1,500 DiPietro Memorial Scholarship

The 2016 scholarship was awarded to Jennifer Swatelle of Scarborough. Swatelle is pursuing a degree in environmental science at the University of Southern Maine. She is

the first in her family to attend college.

Environmental Education

Through our environmental education program, we connect with thousands of students-- teaching about our water resources and encouraging stewardship.



Sebago Lake Land Reserve

PWD maintains about 3,000 acres of watershed land around lower bay of Sebago Lake, and 1,700 acres are open to the public for passive recreation such as biking, hiking, and fishing. This year marked the 10th year anniversary of creating the public reserve. The land now sees more visitors and less violations and hosted its 4th annual trail day to celebrate the land and its stewards.



	2005	Present
Visitors	7,000	25,000
Violations	37	7
(per 1,000 visitors)		

Annual Charity Golf Classic

Thanks to all the generous sponsors, participants, and volunteers, the Portland Water District's 15th Annual Charity Golf Classic raised over \$9,500 for worthy causes supported by United Way and MaineShare.



Water Bottle Filling Fountain Grants

The Board of Trustees awarded four grants in 2016: City of South Portland (Wainwright Complex and Redbank Community Center), Maine Academy of Gymnastics, and Courtyard Portland Airport. Wainwright was the first outside unit awarded.

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.



Lifeline Water Rates and Water Conservation Grants

PWD offers qualified residential customers discounted lifeline water rates and funds a low-income plumbing assistance program.

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.

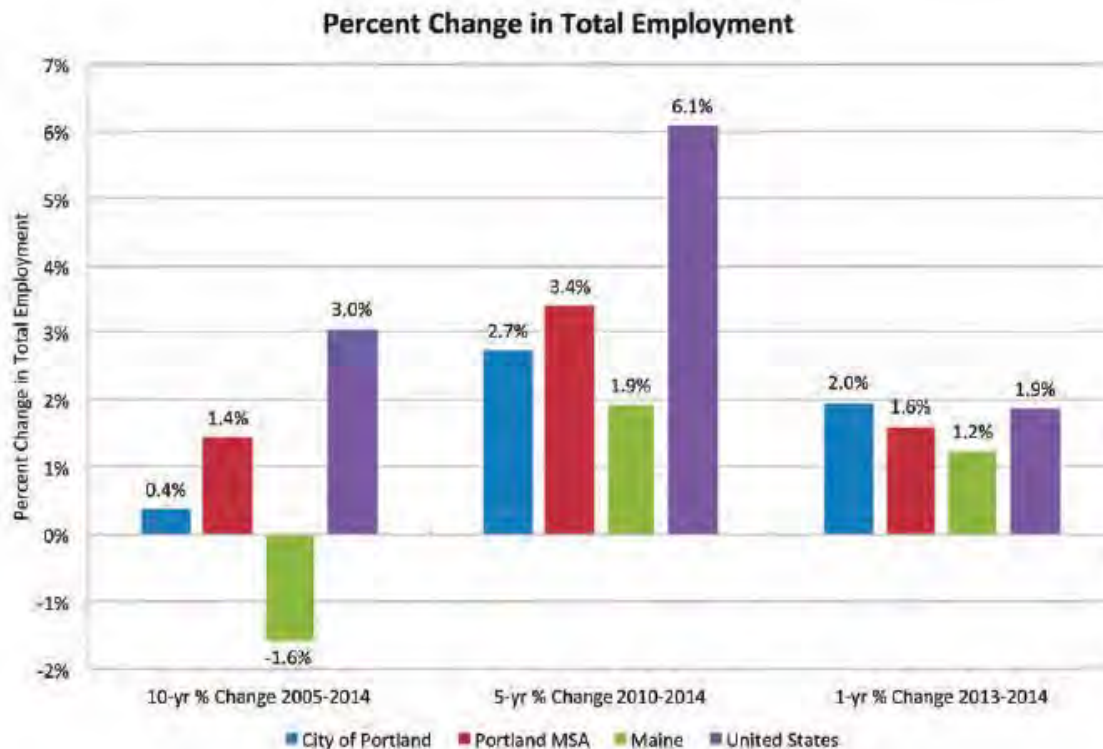
Total Employment Growth

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 ↑

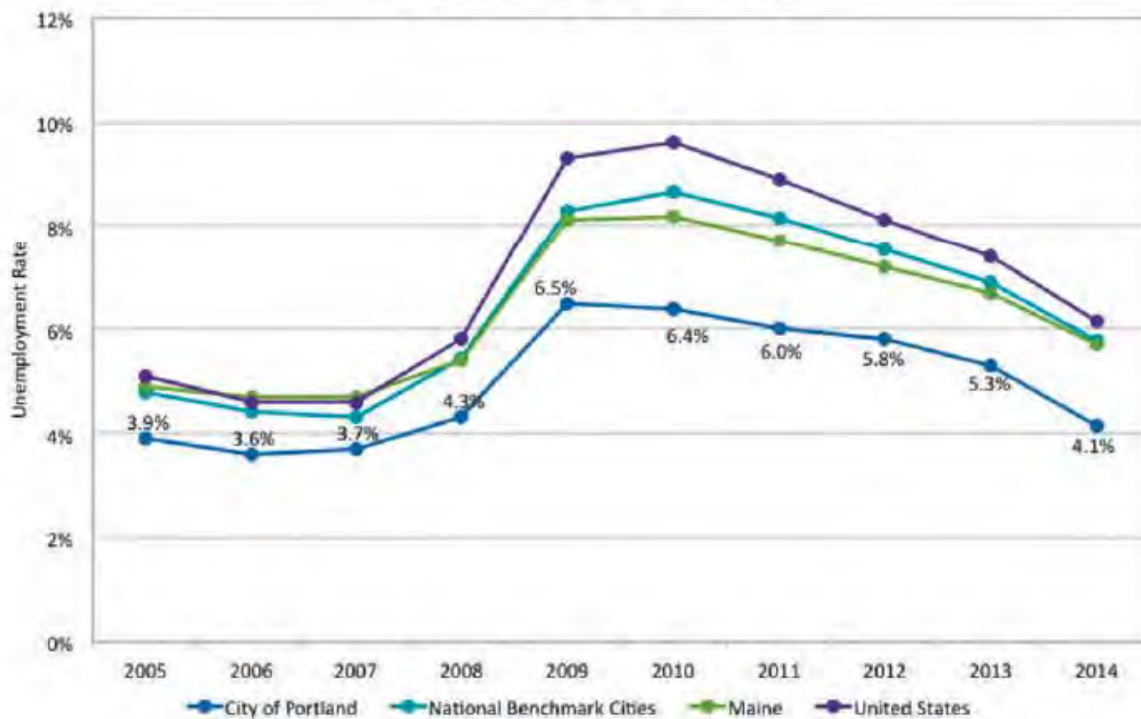
**Meaning a lower unemployment rate*

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.

Unemployment Rate, 2005–2014



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)

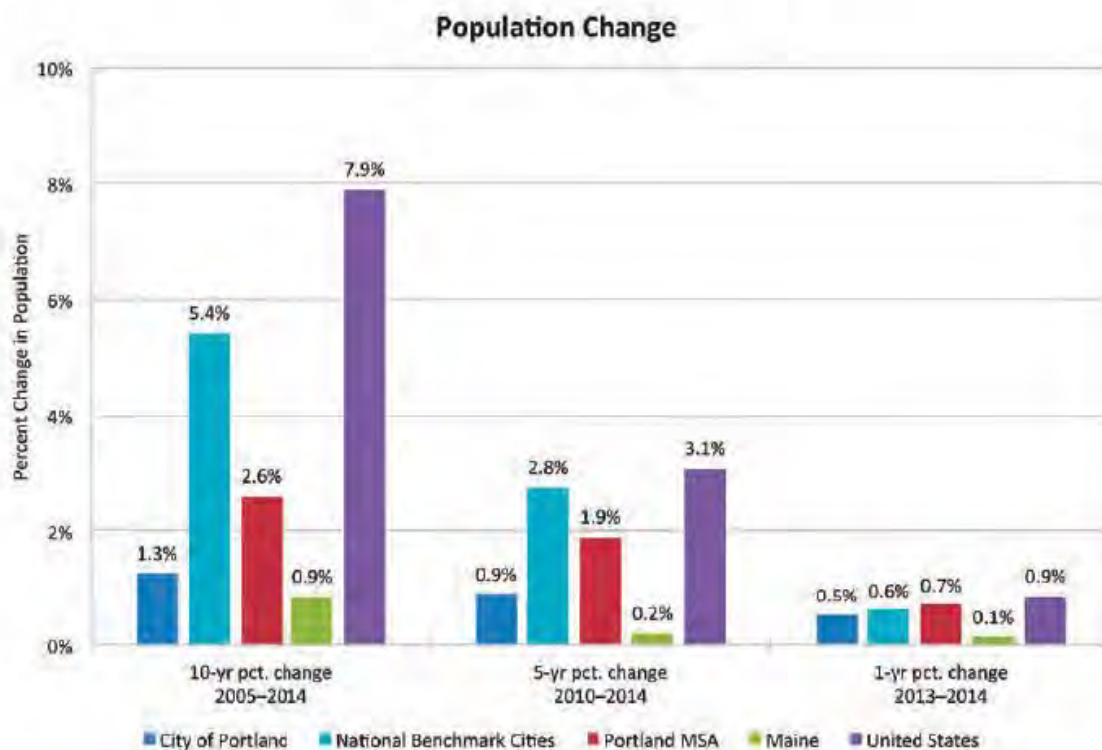
City Population Growth

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)

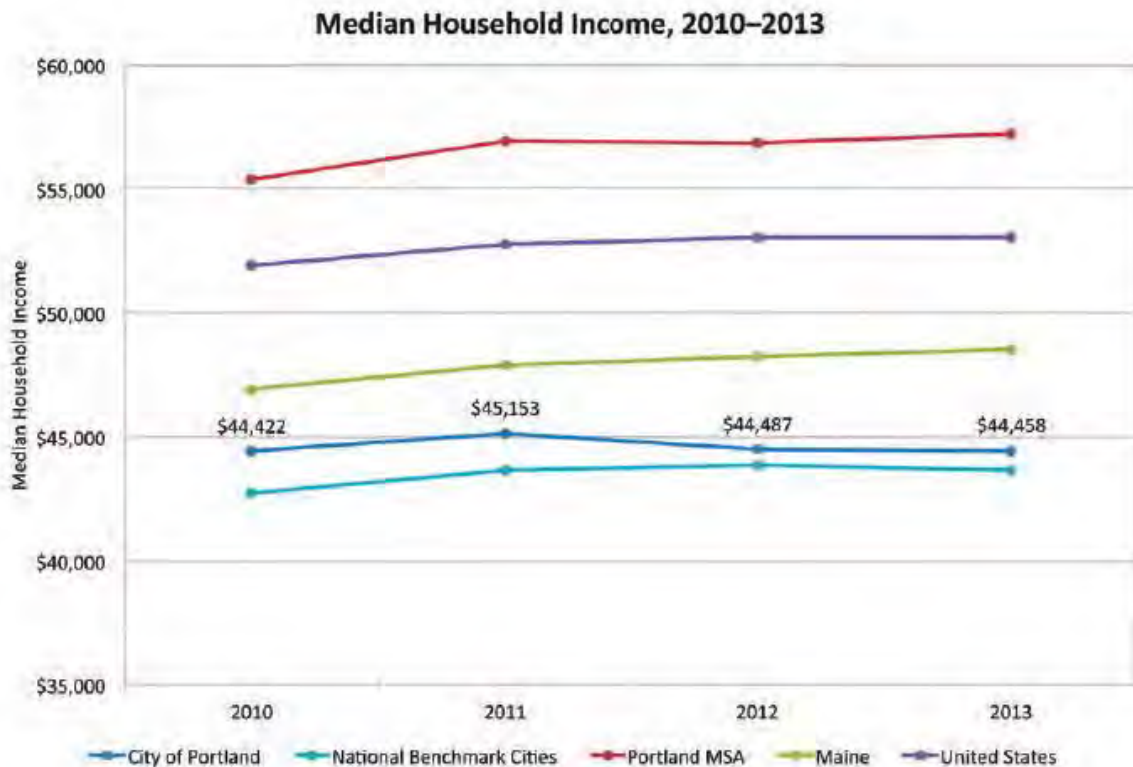
Median City Household Income

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)

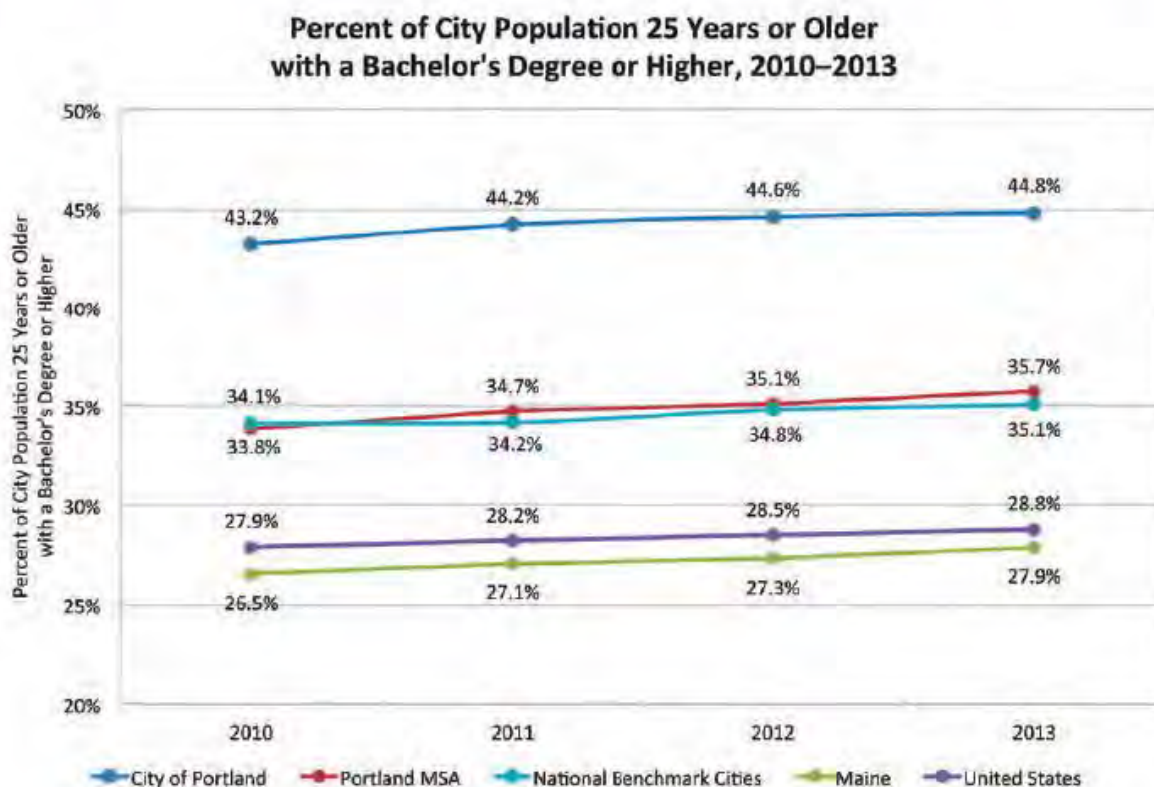
Educational Attainment

Exceeding ↑

TARGET: Annual percent of city population 25 years or older with a bachelor's degree or higher will exceed the national benchmark cities.

In 2013, 44.8% of Portland's population had obtained a bachelor's degree or higher, which was considerably higher than the national benchmark cities (35.1%).

Portland's educational attainment was higher than the averages experienced for the Portland MSA (35.7%) and the national benchmark cities (35.1%), the State of Maine (27.9%), and the U.S. overall (28.8%).



Why is this of significance to Portland Water District?

High education attainment may allow Portland to continue to perform better economically than other areas in the State.

Portland Economic Scorecard (continued)

Housing Affordability- Ownership

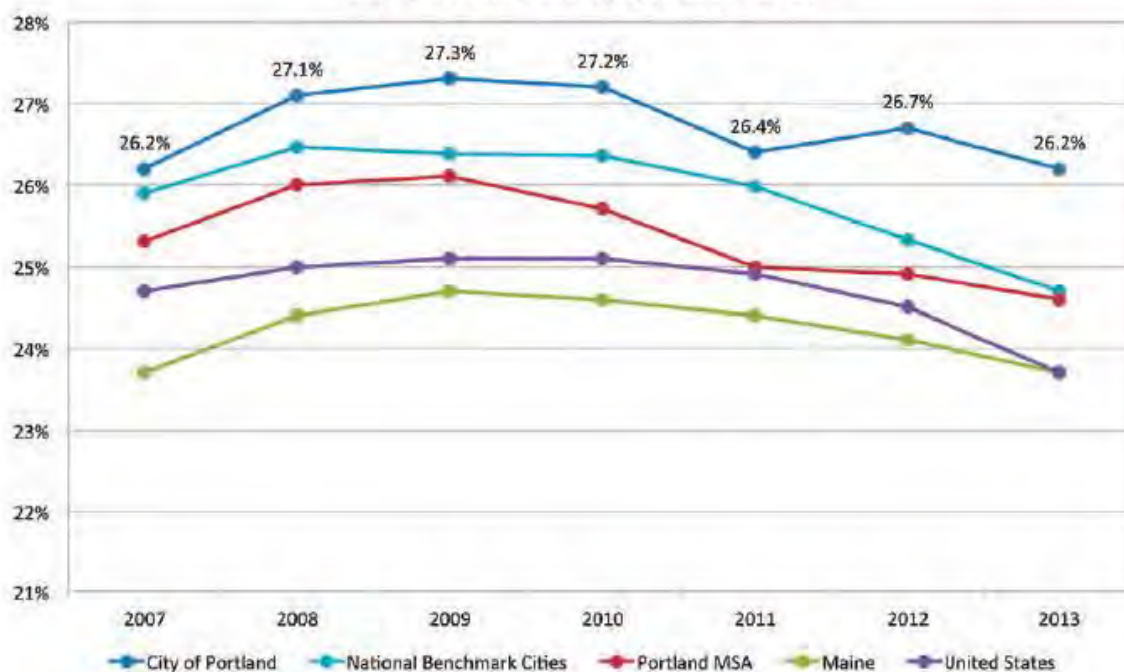
Lagging ↓↓

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

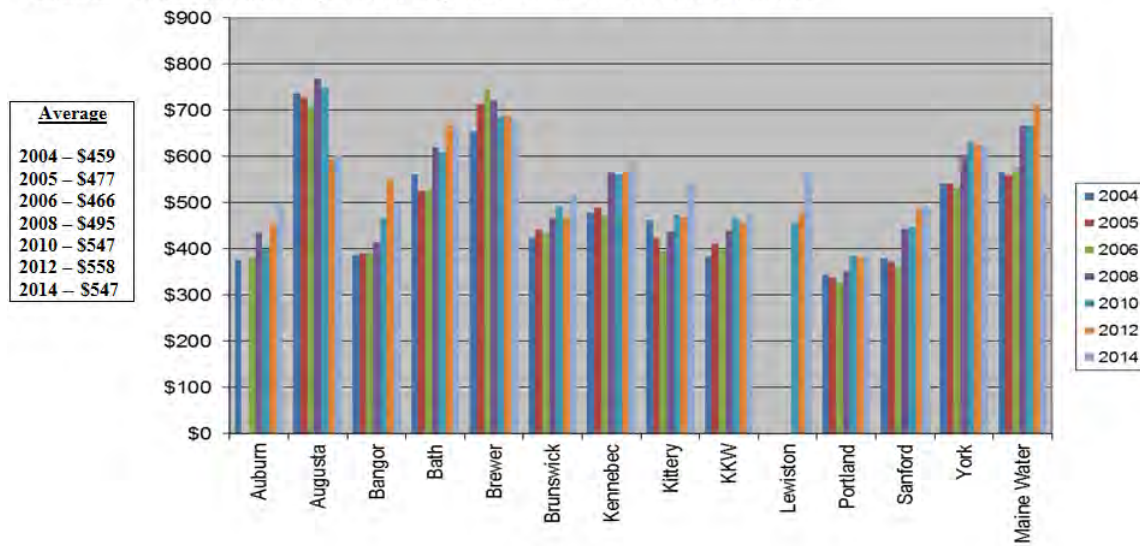
The District participates in a survey of Maine water utilities. Two selected items surveyed are average customer revenue per thousand and debt per capita.

Affordability

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*

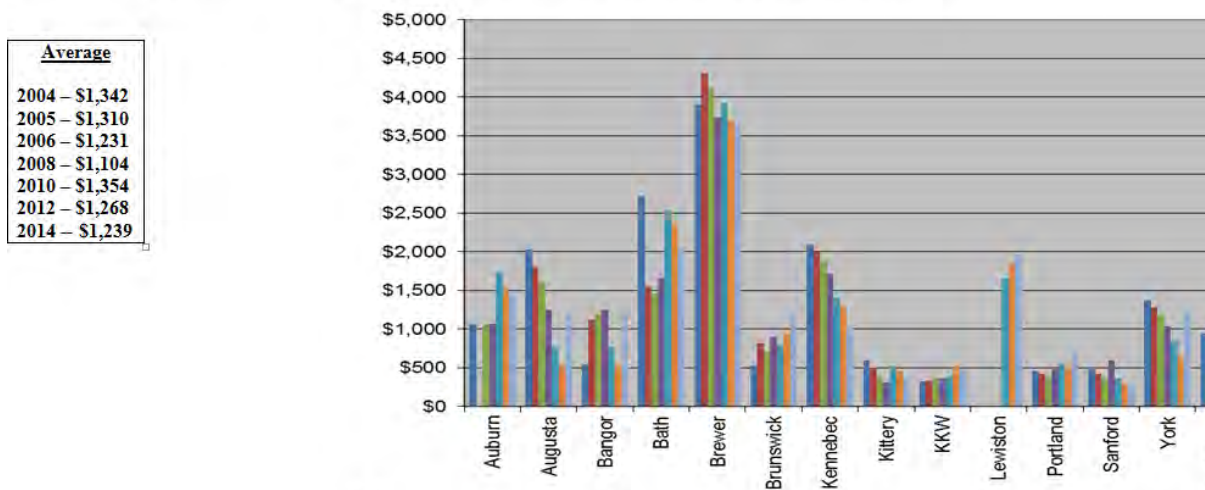


District's average revenue collected per customer is lower than other utilities indicating the relative efficiency of the District's operation.

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.

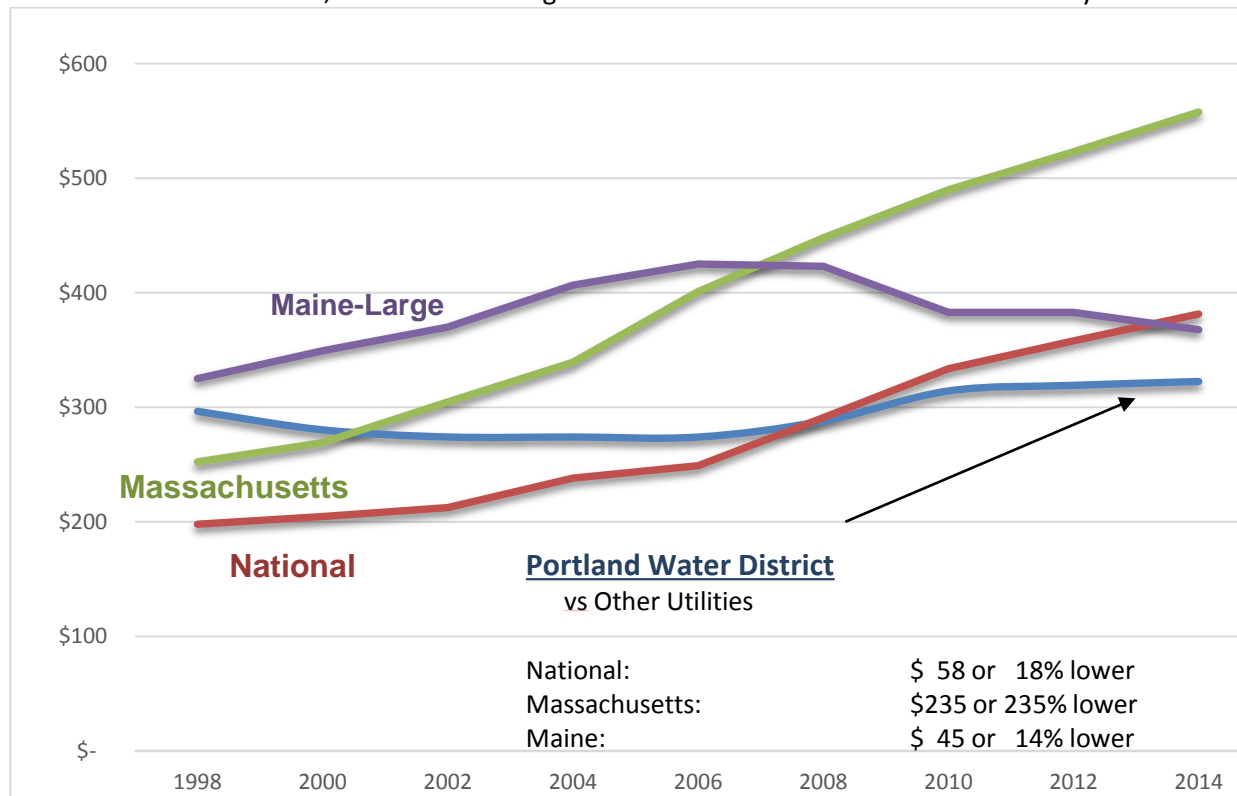
Water Benchmark Data (continued)

Water Rates

The District's rates are well below the Environment 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.

	Maine Median Income (MSHA) 2004-2012				Water Revenue as % of Annual Median Household Income			
	2008	2010	2012	2014	2008	2010	2012	2014
Androscoggin	\$43,149	\$40,653	\$45,699	\$44,921	1.01%	1.06%	1.02%	1.19%
Cumberland	\$55,558	\$52,459	\$57,267	\$57,461	0.74%	0.84%	0.74%	0.79%
Kennebec	\$44,261	\$44,668	\$46,904	\$46,808	1.51%	1.47%	1.24%	1.28%
Penobscot	\$42,152	\$40,301	\$43,601	\$43,734	1.35%	1.43%	1.42%	1.34%
Sagadahoc	\$51,944	\$54,754	\$56,865	\$56,733	1.19%	1.21%	1.27%	0.58%
York	\$53,366	\$54,134	\$56,552	\$57,348	0.90%	0.93%	0.90%	0.93%
Averages	\$48,405	\$47,828	\$51,148	\$51,168	0.96%	0.99%	0.94%	0.87%

The District's water rates for a typical household are relatively lower than other Maine, Massachusetts and National utilities. Since the 2014 survey, the District rates have increased to \$341 from \$323. The budget requests an average increase of 1.67% to \$357. Even after the increase, rates will have only increased 20.6% since 1998, which is an average increase of a little more than 1.0% annually.



Portland Water District Rate Sheet Summary

A summary of Portland Water District's Water Rates and Municipalities' Sewer Rates as of October 1, 2016 is presented below. Water and Sewer is billed based on actual water consumption. 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		05/01/16		
# OF PEOPLE	GALLONS = HCF	MEMBERS	NON-MEMBERS	
1	1,800 =	2	11.29	12.99
2	3,600 =	5	18.07	20.82
3	5,400 =	7	22.59	26.04
4	7,200 =	10	29.37	33.87
5	9,000 =	12	33.89	39.09
6	10,800 =	14	38.41	44.31
7	12,600 =	17	45.19	52.14
8	14,400 =	19	49.71	57.36
9	16,200 =	22	56.49	65.19

SEWER RATES						
01/01/16	09/01/16	07/01/16	03/01/16	01/01/13	04/01/09	11/01/06
PORTLAND	CUMBERLAND	PORTLAND	CAPE ELIZABETH	WESTBROOK	WINDHAM	GORHAM
16.40	47.50	9.84	55.18	17.26	48.84	20.03
41.00	63.37	24.60	72.22	35.65	48.84	38.90
57.40	73.95	34.44	83.58	47.91	55.32	51.48
82.00	89.82	49.20	100.62	66.30	65.04	70.35
98.40	100.40	59.04	111.98	78.56	71.52	82.93
114.80	110.98	68.88	123.34	90.82	78.00	95.51
139.40	126.85	83.64	140.38	109.21	87.72	114.38
155.80	137.43	93.48	151.74	121.47	94.20	126.96
180.40	153.30	108.24	168.78	139.86	103.92	145.83

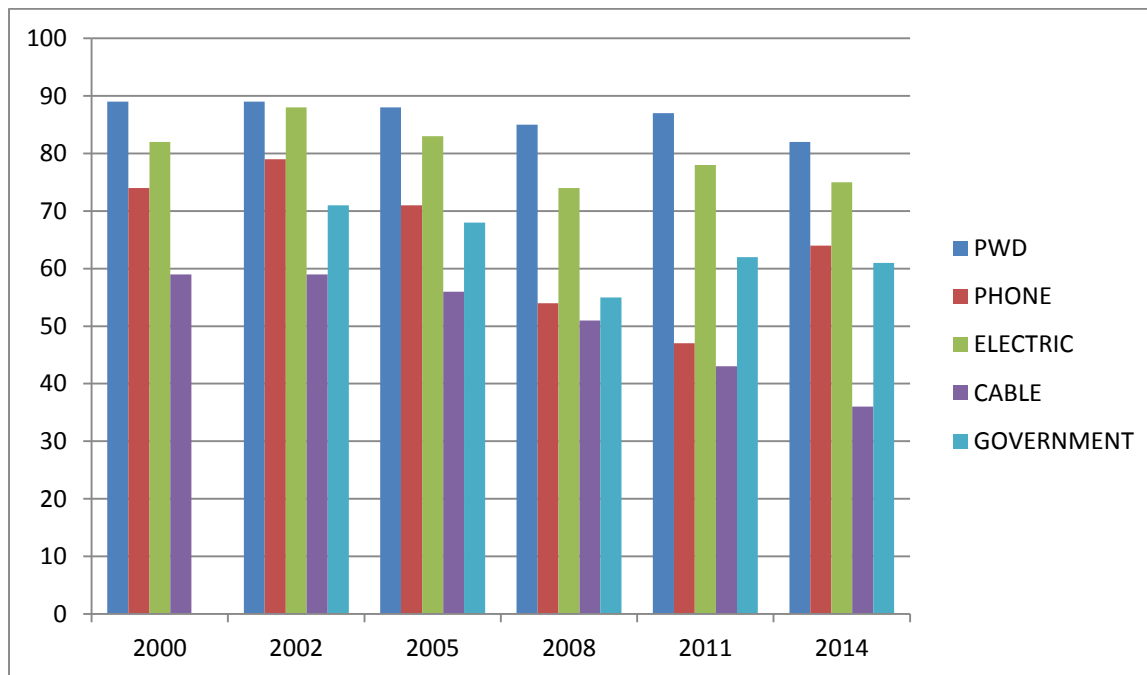
WATER RATES	Min Charge includes 1 HCF	Per additional HCF 2-30 HCF	Per additional HCF 31-100 HCF	Lifeline Water Rate (Reduction in Monthly Minimum Charge)	Minimum includes 1 HCF
MEMBERS	9.03	2.26	1.90	MEMBERS	2.26
NON-MEMBERS	10.38	2.61	2.18	NON-MEMBERS	2.61
SEWER RATES	Min HCF	MIN CHARGE	HCF	Municipal Contacts for Sewer	
PORTLAND	1	8.20	8.20	Rachel Smith	874-8833
CUMBERLAND	0	36.92	5.29	Pam Bosarge	829-2207
SOUTH PORTLAND	1	4.92	4.92	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	RATE PER LIVING UNIT	Commercial Fixtures > 17	SCHOOLS	Diane Moore	781-4462
	\$40.44 x # of units (Residential)	(\$40.44 x # of units) + (# of fixtures - 17 fixtures x \$1.91) (Com'l combination of fixtures)	\$37.92 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 2014. A summary of the results is below and indicate that overall satisfaction remains high relative to previous surveys and other local utilities. Relatively low sewer scores mostly attributed to including the relatively high and increasing municipal sewer charges on the District's water bill.

Action items identified that will be implemented in 2015 include a public relation campaign to promote the 'value of water' and continue expanding services provided electronically. The next survey is scheduled for 2017.

Year	Overall	Water Service/Quality	Sewer
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%



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 28, 2016

Subject: Proposed Budget Orders

Presented By: Ronald Miller

The Administration and Finance, Operations and Planning Committees reviewed the 2017 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 2017 budget and authorizes billing the municipalities for wastewater and billing services.

Order 16-036

ORDERED that the 2017 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 2017 the participating municipalities for wastewater related costs as follows:

Town of Cape Elizabeth	\$ 1,468,692
Town of Cumberland	844,584
Town of Falmouth	263,604
Town of Gorham	1,106,148
City of Portland	11,841,972
City of Westbrook	2,533,176
Town of Windham	360,528

and to assess non-participating municipal corporations for billing-related costs as follows:

City of South Portland	\$ 192,384
Scarborough Sanitary District	10,980

The motion accepts the proposed capital improvement plan and authorizes staff to implement the 2017 projects within the restrictions stated below and in compliance with the purchasing policy guidelines.

Order 16-037

ORDERED that the 2017 – 2021 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2017 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 is authorized to solicit bids or proposals and is authorized to partner with municipalities, MDOT and developers for the year 2017 for the replacement and extension of water mains, services, valves and hydrants as outlined in the Water Distribution Systems Upgrades Program; and the General Manager is also authorized to enter into contracts and award contracts if the bids or partnering proposals that 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 16-038

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 1.67% 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 16-012 to 16-018 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 16-012

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for water fund projects identified in the 2016 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 16-013

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 2017 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 16-014

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Cumberland wastewater fund projects identified in the 2017 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 16-015

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Gorham wastewater fund projects identified in the 2017 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 16-016

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 2017 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 16-017

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Westbrook wastewater fund projects identified in the 2017 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 16-018

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Windham wastewater fund projects identified in the 2017 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 16-012
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 \$12,033,500.
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; and
 - Building improvements at the Douglass Street facilities.
 - Construction of new 407 zone pump station 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 16-013
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 \$175,000.
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 Little Johns, Peabbles and Mitchell pump stations, and
 - Replacement or installation of equipment at the treatment plant, including projects related to the headworks heating, ventilation and security systems.
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 16-014
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Cumberland 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 \$62,000.
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 Cumberland with respect to which reimbursements will be made:
 - Replacement of obsolete assets at various pump stations, including the Ocean Terrace Pump station.
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 16-015
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Gorham 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 \$55,000.
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 Gorham with respect to which reimbursements will be made:
 - Replacement of equipment at Gateway and Little River pump stations, and
 - Replacement of manhole on Main Street, and
 - Renovation and repair of equipment and facilities at the Westbrook Regional Treatment Plant, including projects related to security system.
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 16-016
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 \$3,935,000.
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 grit removal and SCADA system;
 - Renovation and repair of equipment and facilities at the Peaks Island Treatment Plant, including decant pump; and
 - Replacement of equipment at various pump stations, including Fore River and Northeast 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.
6. **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 16-017
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Westbrook Sewer Fund)

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 \$ 2,255,000.

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 equipment at Dana Court pump station and other CSO structures, and
- Renovation and repair of equipment and facilities at the Westbrook Regional Treatment Plant, including projects related to security system.

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 16-018
DECLARATION OF OFFICIAL INTENT PURSUANT TO
TREASURY REGULATION §1.150-2
(Windham Sewer Fund)

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 \$ 100,000.

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 Windham with respect to which reimbursements will be made:

- Redesign of the Depot Street sewer, and
- Renovation and repair of equipment and facilities at the Westbrook Regional Treatment Plant, including projects related to security system.

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).
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.
BOD	Biochemistry 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).

Glossary/Acronyms

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.
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.
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

Glossary/Acronyms

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.
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.

Glossary/Acronyms

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 after 25 days the bill is mailed customers.
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
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.
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

Glossary/Acronyms

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.
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.

Glossary/Acronyms

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
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 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
WIMS	Water information management solution (software)
WWPS	Wastewater Pump Station
WWTF	Wastewater Treatment Facility